Saint Louis Region
Community Health Assessment &
Community Health Improvement Plan

Appendices

St. Louis Community Health Advisory Team (CHAT)

First	Last	Title	Organization
Emily	Andrews	Executive Director	U.S. Green Building Council
Megan	Armentrout	Program Associate	Incarnate Word Foundation
Jeanine	Arrighi	Health Services Manager II	City of St. Louis Department of Health
Harold	Bailey	Public Information Manager	City of St. Louis Department of Health
Kim	Bakker	Network Director of Community Affairs	SSM Health
Rachelle	Bartnick	Senior Director, Community Health, St. Louis Strategies	American Heart Association
Rhonda	Bartow	Epidemiologist	City of St. Louis Department of Health
Donald	Beimdiek	Attorney	Equal Housing Assistance Project
Rhonda	BeLue	Chair, Professor; Health Management and Policy	St. Louis University
Leslie	Bertsch	Nutrition & Health Education Specialist	MU Extension in St. Louis County
Philip	Betts	Health Communication Supervisor	Saint Louis County Department of Public Health
Barbara	Birkicht	Associate City Counselor	City of St. Louis – City Counselor's Office
Damon	Broadus	Regional Director, Multicultural Initiatives	American Heart Association
Angela	Brown	Director of Operations	St. Louis Regional Health Commission
Julia	Brucks	Director of Public Affairs	St. Louis Regional Health Commission
Matt	Brummund	Special Agent	FBI
Laura	Bub	Outreach Coordinator	St. Anthony's Medical Center
Ariel	Burgess	VP & Director of Client Services	International Institute
Steve	Butz	President/Agent	Crawford Butz Insurance
Laurie	Call	Executive Director, Center for Community Capacity Development	Illinois Public Health Institute
Megan	Carroll	Professional Education Analyst	St. Luke's Hospital
Traci	Carter	Community Health & Access Coordinator	Mercy Hospital St. Louis
Michele	Chapel	Foreclosure Advisor	Beyond Housing
Elin	Cogan-Adewunmi	Interim Director, Care Coordination	SSM Health SLU Hospital
Kendra	Copanas	Executive Director	Generate Health STL
Pat	Curtis	Public Health Nursing Supervisor	City of St. Louis Department of Health
Candace	Da Silva	Public Health Educator	City of St. Louis Department of Health
Shameka	Davis	Health Education Coordinator	Saint Louis County Department of Public Health
Carrie	Dickhans	Director, Environmental Services Division	Saint Louis County Department of Public Health
Kate	Donaldson	Assessment, Evaluation, and Policy Manager	Saint Louis County Department of Public Health
Melodie	Donatelli	Director of Strategy and Operations	BJC HealthCare
Emily	Doucette, MD	Director, Primary Care-Public Health Integration Division	Saint Louis County Department of Public Health
Paul	Dribin	President	Dribin Consulting

St. Louis Community Health Advisory Team (CHAT)

First	Last	Title	Organization
Riisa	Easley	Lead Consultant	System of Care St. Louis Region
Frederick	Echols, MD	Director, Communicable Disease Control Services Division	Saint Louis County Department of Public Health
Steven	Estopare	Health Services Manager II	City of St. Louis Department of Health
Heather	Gasama	Epidemiologist	City of St. Louis Department of Health
David	Gerth	Executive Director	Metropolitan Congregations United
Dana	Giboney-Wallace	Healthy Families America Supervisor	Saint Louis County Department of Public Health
Laura	Ginn	Research Specialist	Green City Coalition
Regina	Greer	Community Response/211	United Way of Greater St. Louis
Sheila	Grigsby	Assistant Professor	University of Missouri - St. Louis
Jeff	Haantz	Representative	St. Louis-Kansas City Carpenters Regional Council
Bonnie	Harper	Sustainability Planner	East-West Gateway Council of Governments
Sally	Haywood	Strategic Projects Manager	Behavioral Health Network of Greater St. Louis (BHN)
Carol	Howard	Alderwoman	City of St. Louis Board of Alderman
Yvette	Ineza	Epidemiologist	City of St. Louis Department of Health
Juliet	Iwelunmor	Assistant Professor	University of Illinois, Urbana-Champaign
Bethany	Johnson-Javois	CEO	St. Louis Integrated Health Network
Robin S.	Jones	Fiscal Manager	City of St. Louis Department of Health
Susan	Kendig	Women's Health Integration Specialist	SSM Health - St. Mary's Hospital
Faisal	Khan	Director	Saint Louis County Department of Public Health
Karley	King	System Community Benefits Manager	BJC HealthCare
Laura	Klaesner	Manager, Office of Quality Improvement	Saint Louis County Department of Public Health
Alison	Kraus	Program Manager, Evaluation and Communication	Behavioral Health Network
Antonia	Lalagos	Program Assistant, Center for Community Capacity Development	Illinois Public Health Institute
Anthony	Lancia	VP of Industry Relations	AGC of Missouri
Craig	LeFebvre	Health Communication Coordinator	Saint Louis County Department of Public Health
Shawn	Leight	Vice President	CBB Transportation Engineers and Planners
Sal	Martinez	Executive Director	Community Renewal & Development, Inc.
Kelly	McGowan	WEDO Wellness Coordinator	Gateway Region YMCA
Kevin	McKinney	Executive Director	St. Louis Association of Community Organizations

St. Louis Community Health Advisory Team (CHAT)

First	Last	Title	Organization
Margaret	McVey-Vogt	Clinical Nurse	SSM Cardinal Glennon Children's Hospital
Pam	Mitchell		St. Louis Regional Early Childhood Council
Melba	Moore	Acting Director/Commissioner	City of St. Louis Department of Health
Serena	Muhammad	Director Strategic Initiatives	St. Louis Mental Health Board
Beth	Murphy	Alderwoman	City of St. Louis – Board of Alderman
Michael	Murphy	Grant Writer	Affinia Healthcare
Meredith	Nalick	Public Health Nurse III	City of St. Louis Department of Health
Sharon	Neumeister	Regional Director, Community Health & Access	Mercy Hospital St. Louis
Wendy	Orson	Chief Executive Officer	Behavioral Health Network of Greater St. Louis (BHN)
Don	Owens	Manager, Health Information Technology	Saint Louis County Department of Public Health
Jason	Purnell	Associate Professor, Brown School of Social Work	Washington University
Michael	Renner	Program Officer	Missouri Foundation for Health
Veronica	Richardson	Vice President, Quality Improvement	Affinia Healthcare
Vetta	Sanders-Thompson	Professor, Brown School of Social Work	Washington University
Helen	Sandkuhl	Administrative Director: Emergency, Trauma, Disaster & Community Outreach Services	SSM Health SLU Hospital
Craig	Schmid	Government Services Analyst	City of St. Louis Department of Health
Spring	Schmidt	Division Director	Saint Louis County Department of Public Health
Jennifer	Sledge		BJC HealthCare
Rhonda	Smythe	Program Officer	Missouri Foundation for Health
Keith	Street	Health Education Coordinator	Saint Louis County Department of Public Health
Amy	Stringer Hessel	Program Officer	Anonymous Foundation
Susan	Talve	Rabbi	Central Reform Congregation
Franda	Thomas	Program Manager I	City of St. Louis Department of Health
Jim	Thomas	Manager for Organizational Development	People's Community Action Corporation
Greta	Todd	Director, Diversity, Inclusion & Community Affairs	St. Louis Children's Hospital
Gena	Traver	Manager, Community Health	Saint Louis County Department of Public Health

St. Louis Community Health Advisory Team (CHAT)

First	Last	Title	Organization
Michelle	Turner	Executive Secretary to the Director/Commissioner of Health	City of St. Louis Department of Health
Nhial	Tutlam	Maternal and Child Health	Saint Louis County Department of Public Health
Cathy	Vaisvil	Community Partnerships Manager	United Way of Greater St. Louis
Kim	Vandenberg	Public Information Officer I	City of St. Louis Department of Health
Emily	Varner	Prescription Drug Monitoring Program Coordinator	Saint Louis County Department of Public Health
John	Wagner	Director, Bi-State Development Research Institute	Bi-State Development Corporation
Rebecca	Weaver	Engagement Coordinator	Green City Coalition
Norm	White	Associate Dean for Community Engagement	St. Louis University
Bobie	Williams	Program Manager I	City of St. Louis Department of Health
Lori	Wozniak	First District Outreach Officer	St. Louis Metropolitan Police Department
Aaron	Young	Sustainability Planning Manager	East-West Gateway Council of Governments

Regional Planning and Leadership Group (RPLG)

Membership as of June 2018:

American Heart Association

Behavioral Health Network

BJC Health Care

City of St. Louis Department of Health

Generate Health St. Louis

Illinois Public Health Institute

Mercy Hospital St. Louis

Missouri Foundation for Health

SSM Health

St. Louis Integrated Health Network

St. Louis Regional Health Commission

St. Louis System of Care

St. Luke's Hospital

St. Anthony's Medical Center

Saint Louis County Department of Public Health

United Way of Greater St. Louis

Washington University in St. Louis

Action Team: Access to Care and Social Services

Lead Organization: Regional Planning and Leadership Group

Membership as of June 2018:

American Heart Association

Behavioral Health Network

BJC Health Care

City of St. Louis Department of Health

Generate Health St. Louis

Illinois Public Health Institute

Mercy Hospital St. Louis

Missouri Foundation for Health

SSM Health

St. Louis Integrated Health Network

St. Louis Regional Health Commission

St. Louis System of Care

St. Luke's Hospital

St. Anthony's Medical Center

Saint Louis County Department of Public Health

United Way of Greater St. Louis

Washington University in St. Louis

Action Team: Behavioral Health

Lead Organization: Behavioral Health Network

Membership as of June 2018:

Barnes-Jewish Hospital
Crider Health Center, of the Compass Health Network
CareSTL Health (formerly known as Myrtle Hilliard Davis Comprehensive Health Centers)
St. Louis Counseling
COMTREA, Inc.
St. Louis Integrated Health Network (IHN)
Alive and Well Communities
Developmental Disabilities Resource Board of St. Charles County
Beyond Housing
Behavioral Health Response (BHR)
Consumer/Family Representative
St. Louis County Department of Public Health
Adapt of Missouri, Inc.
Mental Health America of Eastern Missouri
Community Advocate / Family Rep
Washington University
Affinia Healthcare
St. Louis Regional Health Commission
Casa de Salud
CenterPointe Hospital
Provident Inc.
VA St. Louis Healthcare System
Saint Louis Mental Health Board
Christian Hospital
St. Louis County Police Department
Lutheran Family and Children's Services of Missouri
Preferred Family Healthcare
Saint Louis County Government Department of Human Services
Family Care Health Centers
Missouri Institute of Mental Health (MIMH) & University of Missouri St. Louis (UMSL)

Action Team: Chronic Disease Prevention and Management

Lead Organization: Healthy Living Coalition / HEAL

Membership as of June 2018:

Affinia Healthcare
American Cancer Society, Inc.
American Heart Association
Arthritis Foundation
Barnes Jewish Hospital
BJC School Outreach and Youth Development
Bayless School District
Behavioral Health Network
Beyond Housing
Bi-State Development
BJC HealthCare
Casa de Salud
Child Care Aware of Missouri
City of St. Louis – Mayor's Cabinet
City of St. Louis – Department of Health
Community Builders Network of Metropolitan St. Louis
Deaconess Nurse Ministry
Desales Community Development
Earthdance Farms
East-West Gateway Council of Governments
Emerson Family YMCA
Fair Food Network
Family Care Health Center
Gateway Greening, Inc.
Gateway Region YMCA
Generate Health
GirlTrek
Good Life Growing
Great Circle
Great Rivers Greenway
Health Literacy Missouri
Integrated Health Network
Interactive Health
Lume Institute
Mental Health America of Eastern Missouri
Mercy Neighborhood Ministry
Mercy St. Louis
Midwest Health Initiative
Missouri Association for Health, Physical Education, Recreation and Dance
Missouri Baptist Hospital
Missouri Coalition for the Environment
Missouri Department of Health and Senior Services
Missouri Extension
Missouri Foundation for Health
Missouri Institute for Mental Health - University of Missouri St. Louis
Missouri Primary Care Association
MU Extension
Myrtle Hilliard Davis
Nurses for Newborns
Operation Food Search
Paraquad
Pfizer
Primaris
ProActive Kids Foundation
RISE STL
Saint Louis University – College for Public Health and Social Justice
SLATE
Small Business Majority
St. Louis Area Business Health Coalition
St. Louis Area Food Bank
St. Louis Community College
St. Louis County – Department of Public Health
St. Louis County Government
St. Louis County Parks Department
St. Louis MetroMarket
St. Louis OASIS
St. Louis Promise Zone
St. Louis University
St. Luke's Hospital
St. Vincent Community Center
The Link Market
The Magic House
The OASIS Institute
Trailnet
Transtria
United Healthcare
United People's Market
United Way Greater St. Louis
University of Missouri Extension
Urban Harvest STL
Washington University – Brown School, For the Sake of All
Wildwood Family YMCA
Young Friends of the Ville

Action Team: Violence Prevention

Lead Organization: Violence Prevention Commission

Membership as of June 2018:

Affected Community Members:
Hood Helpers
Bread of Life Ministry
St. Louis Mothers in Charge
Community Based Organization:
North Newstead Neighborhood Association
Economic Development Sector:
St. Louis Promise Zone, St. Louis Economic Development Partnership
Education Sector:
Forest Park Community College
Faith Based Sector:
Episcopal Diocese of Missouri
Public Safety Sector:
St. Louis Metropolitan Police Department
St. Louis City Fire Department
City of St. Louis Corrections Commissioner
St. Louis County Police Department
St. Louis County Executive Office
North County Police Chief's Association
Northwoods Police Department
Social Service Sector:
Crime Victim's Advocacy Center
Ex-Officio:
U.S. Attorney General's Office
United Way of Greater St. Louis
Staff Support:
Saint Louis MHB
United Way of Greater St. Louis

Action Team: Maternal, Child, Family, and Sexual Health

Lead Organization: Generate Health

Membership as of May 2018:

Alive and Well
American Academy of Pediatrics (MO Chapter)
American College of Obstetricians and Gynecologists (MO Chapter)
American Heart Association
American Lung Association
Ascend STL
Ascension
Bethany Christian Services
Better Family Life
Beyond Housing
Birth and Wellness Center
Birthright
Bi-State Development Research Institute
BJC Health System
BJC Raising St. Louis
Bridge4STL Program (St. Louis Children's Hospital)
Care STL
City of St. Louis Department of Health
Community residents
Contraceptive Choice Center
DeSales Community Development
Epharmix Research Center
Fontbonne
For the Sake of All
Good Shepherd Children & Family Services
Great Circle
Healthy Food Alliance for Early Education
Homestate Health
Infant Loss Resources
Jamaa Birth Village (formerly Community Birth and Wellness Center)
Junior League
Legal Services of Eastern Missouri
LS-Associates
Lutheran Family and Children Services
Making Change Happen Leadership Academy
March of Dimes
Mercy
Missouri Care
Missouri Foundation for Health
MO Coalition for the Environment/STLFPC
MO Department of Health and Social Services
MO HealthNet
Mosaic Beginnings
MTM
N.O.I.
Nurses for Newborns
Parents As Teachers
Project LAUNCH
Queen of Peace
St. Louis Regional Health Commission
Saint Louis Behavioral Medicine Institute
St. Louis Children's Hospital
Saint Louis Crisis Nursery
St. Louis Integrated Health Network
Saint Louis University
Signature Medical Group
SLU Hospital
SSM Health
St. Louis Breastfeeding Coalition
St. Louis City Health Department
St. Louis County Department of Public Health
St. Louis Fire Department
St. Louis Public Schools
Standing Partnership
Teen Pregnancy and Prevention Partnership
The Contraceptive Choice Center
United Healthcare
United Way of Greater St. Louis
University of Missouri- St. Louis
Urban Strategies
Vision for Children at Risk
Washington University
Women's Voices Raised for Social Justice

Community Health Status Assessment

December 11, 2017

A Regional Collaboration between the St. Louis Partnership for a Healthy Community, the City of St. Louis Department of Health, and the Saint Louis County Department of Public Health

TABLE OF CONTENTS

INTRODUCTION

Background

This report documents the health status of St. Louis City and County residents. The community health status indicators - organized in this report by foundational public health areas - were identified through a comprehensive study of population, hospital, and community data. The foundational public health services model is a conceptual framework outlining key capabilities and services and includes: Access to and Linkage with Clinical Health Care; Chronic Disease and Injury Prevention; Communicable Disease Control; Environmental Public Health; and Maternal, Child, and Family Health. Indicators describing Demographics and Opportunity – social and structural determinants – metrics were also identified, to fully capture equity and well-being of our community.

Foundational Public Health Services Model

Opportunity Measures – Social and Structural Determinants				
Demographic Characteristics				
Access to and Linkage with Clinical Care	**Chronic Disease and Injury Prevention**	**Communicable Disease Control**	**Environmental Health**	**Maternal, Child, and Family Health**

Adapted from: http://phnci.org

This is the first community health status assessment (CHSA) conducted by the St. Louis Partnership for a Healthy Community. Reports from previous assessments and improvement plans are available on www.ThinkHealthSTL.org.

The broad goal of any health status assessment is to analyze quantitative population health data and identify important health issues that affect the community. A workgroup comprised of epidemiologists, biostatisticians, and data enthusiasts from the City of St. Louis Department of Health and the Saint Louis County Department of Public Health gathered data from epidemiological sources and hospitals.

CHSA Workgroup Members

City of St. Louis Department of Health
Rhonda Bartow, MA, REHS/RS
Heather Gasama, MPH, REHS/RS
Nila Garba, MPH
Yvette Ineza, MPH

Saint Louis County Department of Public Health
Michele Bildner, MPH, MCHES
Lara Dame, MPH
Kate Donaldson, MPH
Jennifer Kret, MPH
Aimee Snavely, RDH, BSDH, MPH, CIC
Andrew Torgerson, MPH
Nhial Tutlam, PhD, MPH
Emily Varner, MPH

Vision

The St. Louis Partnership for a Healthy Community and its member organizations are committed to a vision of: *St. Louis, an equitable community achieving optimal health for all*. The 2017 Community Health Status Assessment includes data on disparities in our region, driven by the goal of identifying and describing factors that impact the health of all residents, workers, and visitors so that health equity and health outcomes can be directly addressed to improve the lives of all people in the St. Louis region.

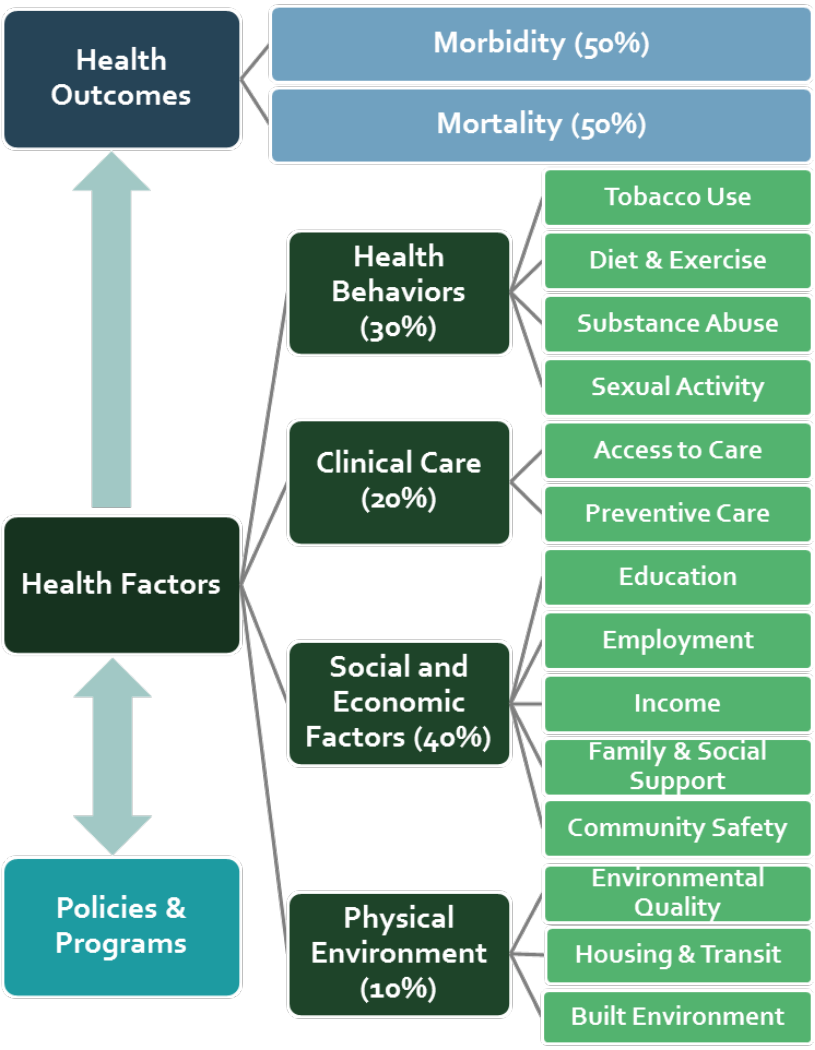
"Health Equity" means that *everyone has the opportunity to live a long and healthy life without that being compromised or disadvantaged because of economic, demographic, or geographic differences such as race, ethnicity, gender, income, education, sexual orientation, neighborhood of residence, or any other social or environmental conditions*.

Health inequities are differences in health outcomes across population groups that are avoidable, unfair, and unjust. These differences come from inequalities that exist between the places where we are born, live, learn, work, play, and age.

Framework

The workgroup analyzed and prioritized a list of health indicators based on a predetermined set of criteria, including the ability to benchmark, disaggregate, or analyze trend data over time. Additional criteria reflects indicators organized by the County Health Rankings and Roadmaps approach to describing health factors and health outcomes. The objective was to ensure that the CHSA focuses on both "downstream" determinants of health and "upstream" health effects.

County Health Rankings and Roadmaps Approach



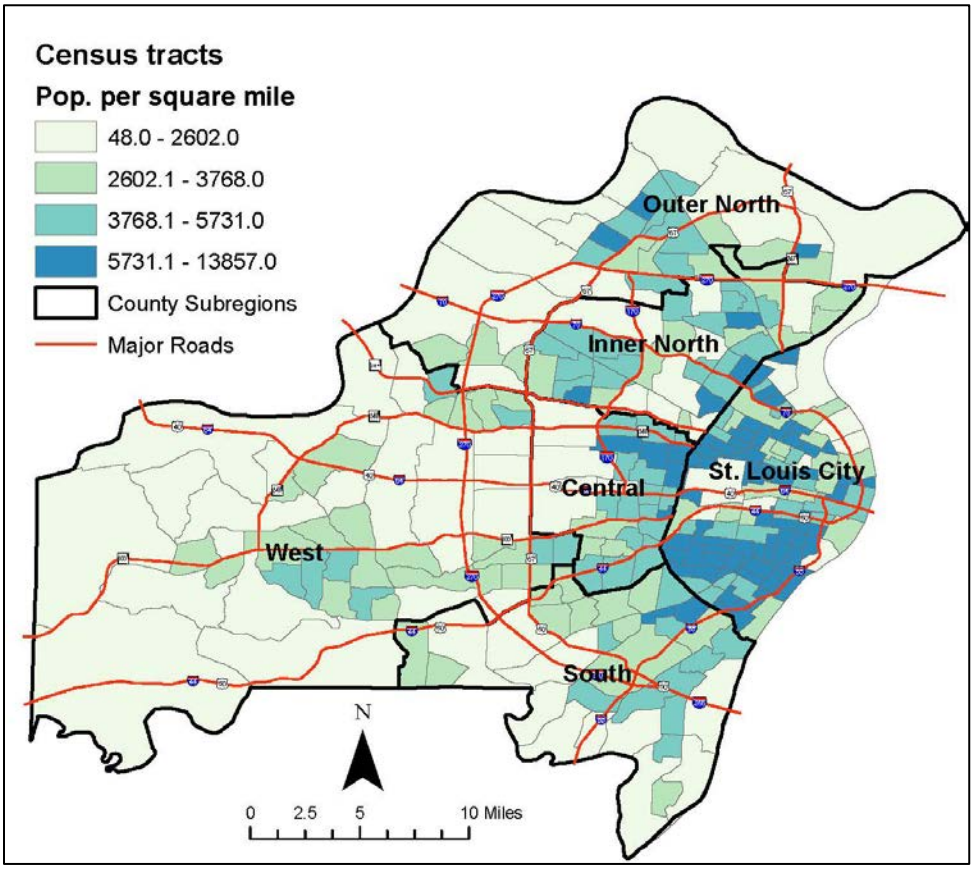
Adapted from: http://www.countyhealthrankings.org/our-approach

Local public health system stakeholders were invited to rank these indicators according to their expertise, their work or that of their agency, and ability to take action. The workgroup designed a poster for each of the foundational areas, demographics, and opportunity or structural, social, and economic indicators (see Appendix). Attendees had the option of providing open-ended suggestions for indicators and data sources. The final list was compiled after the open house and posted to the website (www.ThinkHealthSTL.org).

Geographic Area

In 2012, the Saint Louis County Department of Public Health designated new geographic areas within St. Louis County and aligned them with the Department of Planning's five-year Strategic Plan update. These areas were based on the 49 ZIP codes within and crossing St. Louis County's borders. ESRI ArcGIS was used to assign each census tract to one of five survey areas: 1) Central, 2) Inner North, 3) Outer North, 4) South, and 5) West. See the Appendix for more information.

POPULATION DENSITY, ST. LOUIS REGION



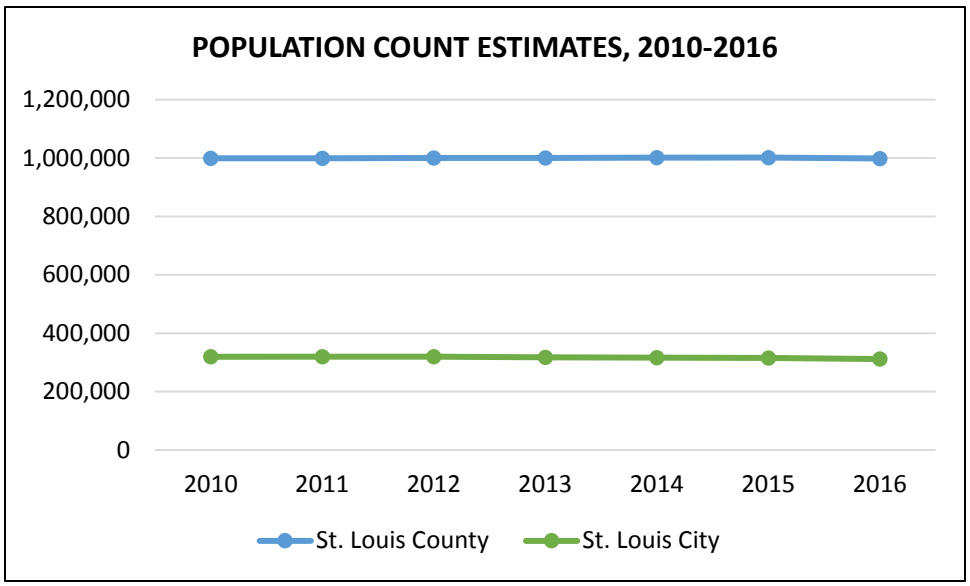
American Community Survey (ACS) 5-Year Estimates, 2010-2014

- According to the 2010 U.S. Census, a total of 319,381 people live in the 61.91 square miles comprising St. Louis City, and 998,868 people live in the 507.8 square miles comprising St. Louis County, Missouri.
- The population density of St. Louis City, estimated at 5,157.5 persons per square mile, is greater than the population density of St. Louis County, estimated at 1,967.2. Both were higher than the state (87.1) and national (87.4) average population densities.

DEMOGRAPHICS

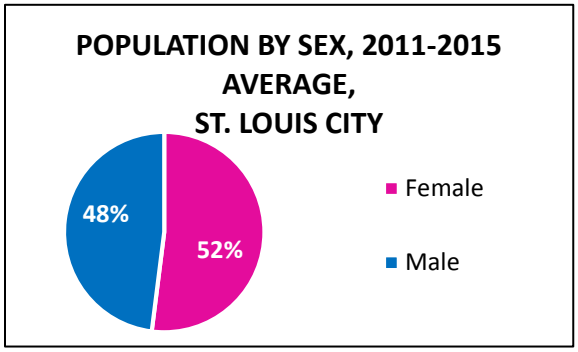
Population Estimates

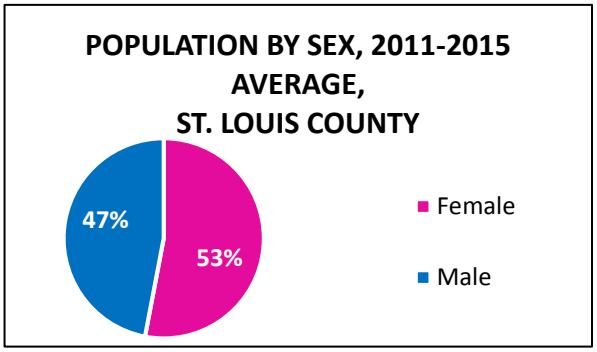
Measuring demographics is an essential part of measuring health status because the meaning of "health" often changes for different sections of the population according to one's age, sex, race/ethnicity, income, and language spoken, among other factors. Understanding a population's age and sex can tell us how demographics are changing and may even forecast future social and economic events.



U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population, April 1, 2010 to July 1, 2016

- 998,581 people lived in St. Louis County in 2016, which was a decrease of 0.03% from 2010 when the population was 998,833.
- 311,404 people lived in St. Louis City in 2016, which was a decrease of 2.5% from 2010 when the population was 319,305.

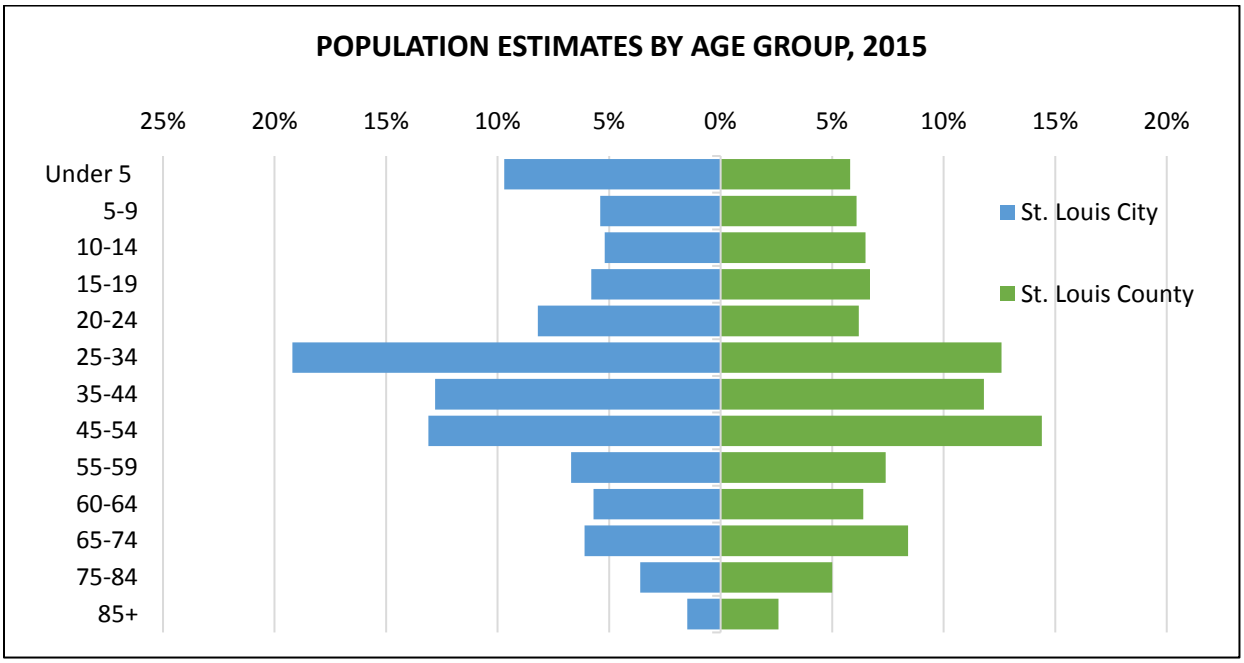




ACS 5-YR Est., 2011-2015

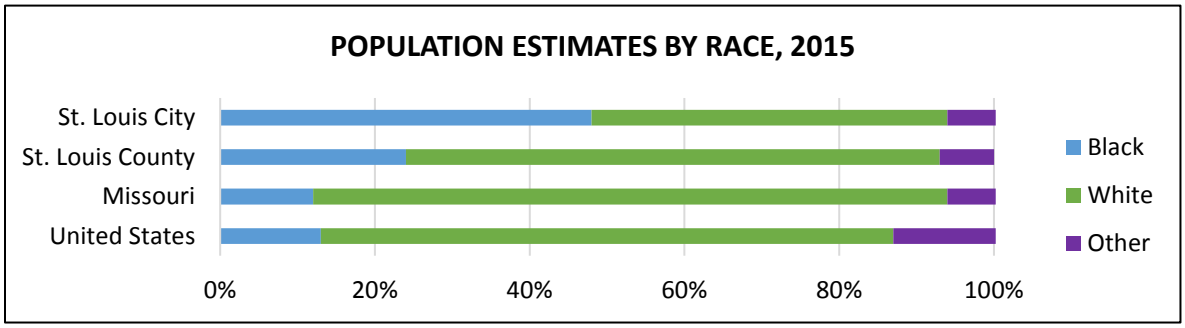
- The percentage of females and males in St. Louis City and County were similar when averaged for 2011 to 2015.

Population Estimates



ACS, 5-YR Est., 2011-2015

- The 25 – 34 year old age group comprised the largest percent of the St. Louis City population (19.2%) in 2015. The 45 – 54 (13.1%) and 35 – 44 (12.8%) age groups followed.
- St. Louis City had nearly double the percent of population in the under 5 age group (9.7%) than St. Louis County (5.8%).
- St. Louis County's largest population age group was 45 – 54 year olds, followed by 25 – 34 (12.6%) and 35 – 44 year olds (11.8%).



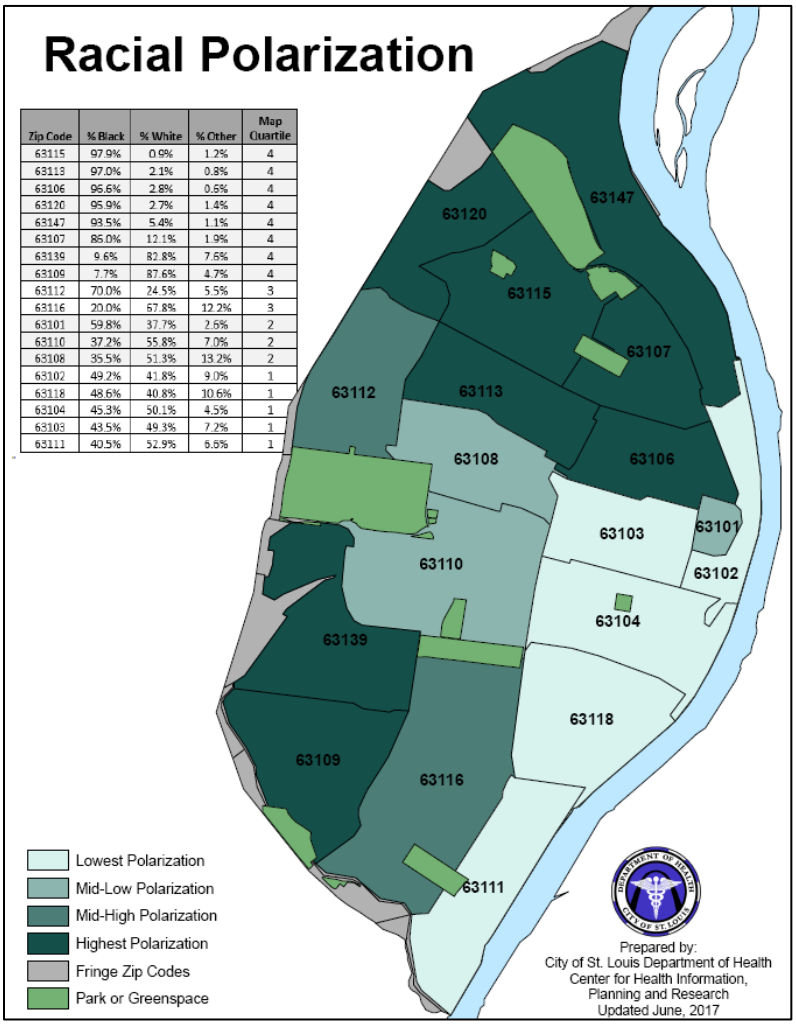
ACS, 5-YR Est., 2011-2015

- In St. Louis City, the population by race was nearly equal between black/African Americans (49.1%) and whites (47.9%), while other races (American Indian, Asian, multiple races, Native Hawaiian, other) comprised 5.8%.
- In St. Louis County, the population was predominantly white (71.7%), black/African Americans comprised nearly a quarter (24.7%), and other races were 14.5%.

Racial Polarization

Racial polarization is the process whereby a population is divided into separate and distinct (from each other) racial groups. It can represent increasing economic inequality. On average, a black/African American household has about 6% of the total wealth of a white household. Racial segregation can reduce educational and job opportunities and is associated with worse health outcomes.

RACIAL POLARIZATION, ST. LOUIS CITY, 2015

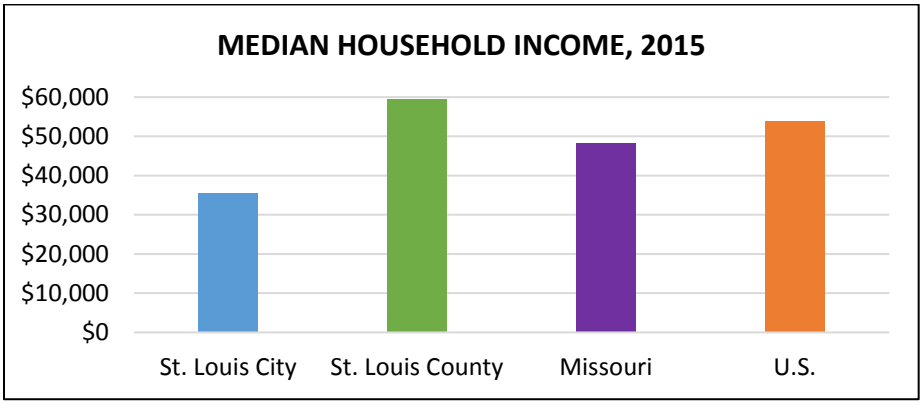


ACS, 5-YR Est., 2011-2015

- Zip codes in northern St. Louis City (63115, 63118, 63106, 63120, 63147, 63107) had the highest polarization of black/African American residents, with a range of 97.9% to 85.0%.
- Zip codes in southwestern St. Louis City (63139, 63109) had the highest polarization of white residents.
- The least polarized zip codes (63102, 63103, 63104, 63118, 63111) were in eastern St. Louis City, where the percentages of black and white sub-groups were nearly equally distributed.

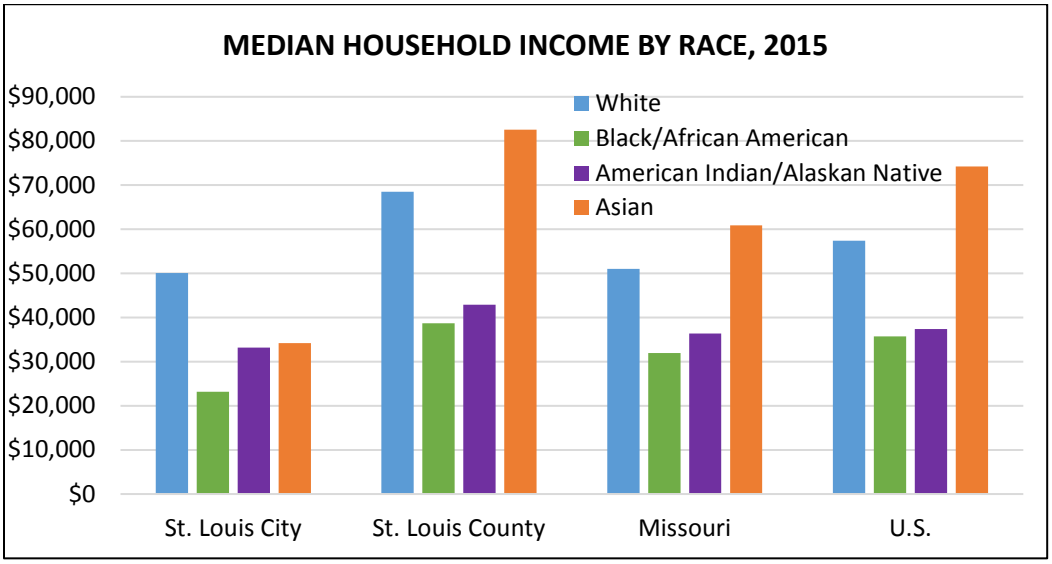
Income

Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have more educated residents and lower unemployment rates. Higher employment rates lead to better access to healthcare and better health outcomes since many families get their health insurance through their employer.



ACS, 5-YR Est., 2011-2015

- Median household income was lowest in St. Louis City, as compared to St. Louis County, Missouri, and the United States for 2015. St. Louis County had the highest median household income.

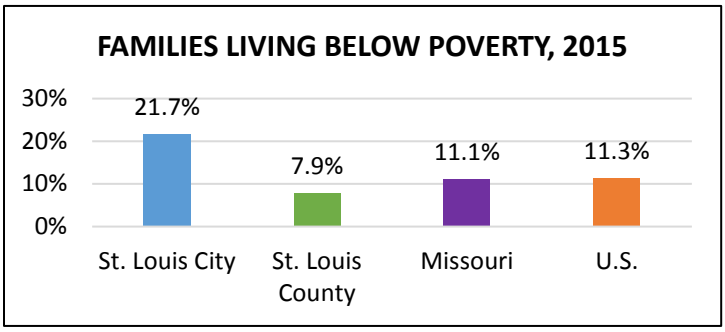


ACS, 5-YR Est., 2011-2015

- When looking at median household income by race, black/African Americans had the lowest incomes compared to whites, American Indian, and Asians in St. Louis City ($23,155) and County ($38,698), Missouri ($31,977), and the United States ($35,695).
- Whites had the highest income in St. Louis City ($50,042), while Asian households ($82,545) had the highest in St. Louis County.

Poverty

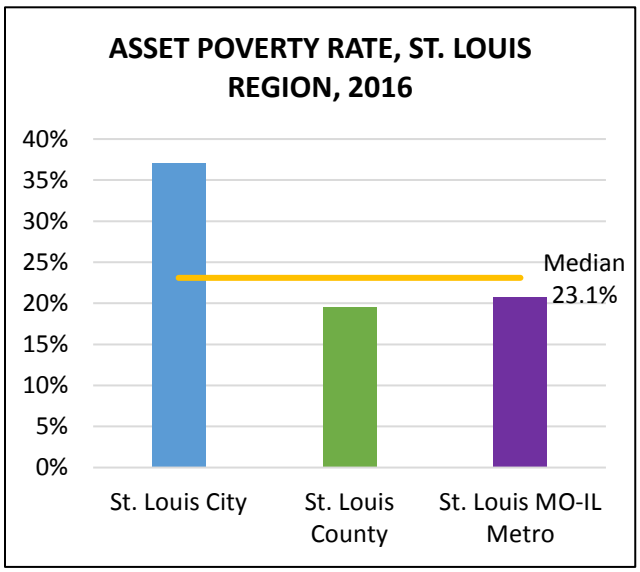
Poverty is a comparison of a person's income with the minimum amount needed to pay for food and housing. People earning less than the minimum are considered living below the poverty line, with children being misfortunate victims of the cycle of poverty. Poverty is habitually cyclical and families can often be impoverished for three generations.

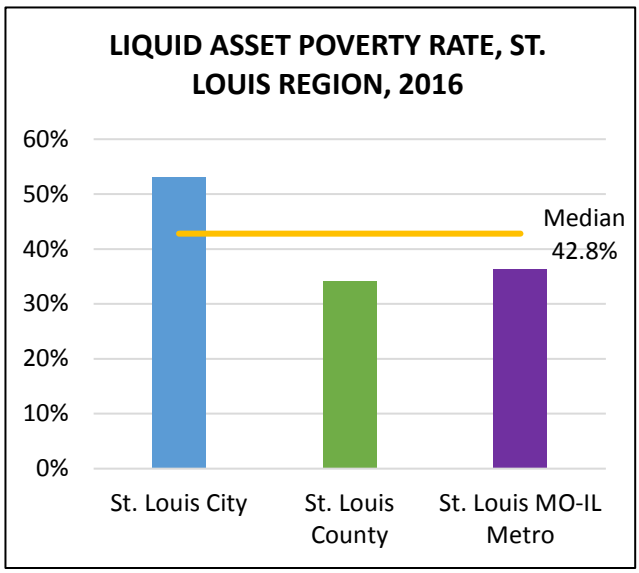


• St. Louis City had nearly triple (21.7%) the percent of families living in poverty than St. Louis County (7.9%) in 2015. St. Louis County had the lowest percentage when compared to Missouri (11.1%) and the United States (11.3%).

ACS, 5-YR Est., 2011-2015

Asset poverty is a measure of how much of a financial cushion a household has to weather a financial crisis such as unemployment, a health emergency, or vehicle repairs. It is estimated that three months of living expenses at the poverty level is the minimum financial cushion needed for a family that loses its income. Liquid asset poverty includes the liquid savings households have to cover basic expenses for three months if they experience a sudden job loss, a health emergency, or another financial crisis that decreases stable income. A liquid asset is cash on hand whereas assets may require more time and negotiation to convert to cash.

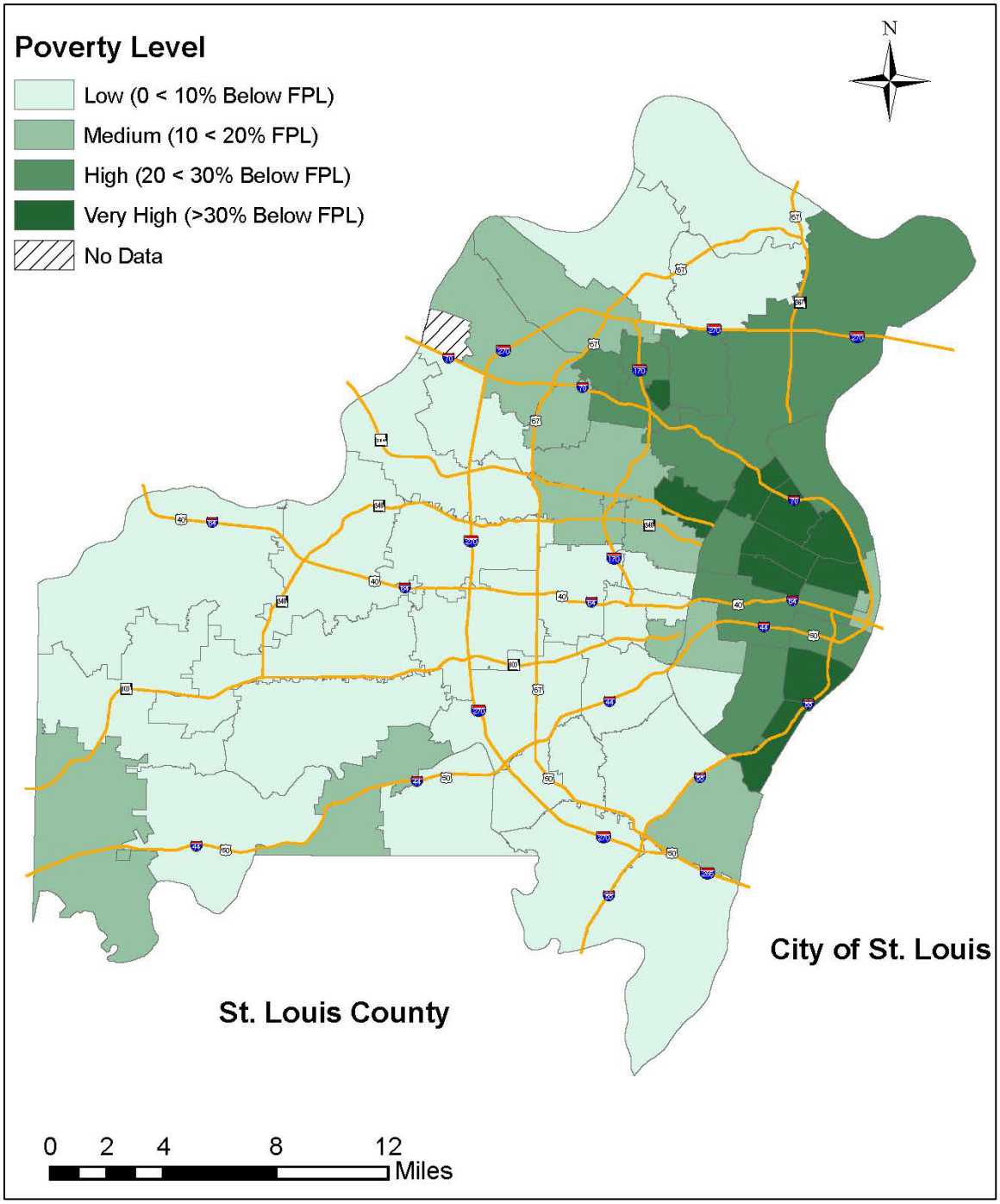




2015 Assets & Opportunity Scorecard, U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2008. Estimates at smaller geographies are derived from CFED's statistical modeling process, ACS 5-YR Est., 2008-2012

- Of counties with more than 250,000 people, St. Louis City had the 5th highest rate of asset poverty (37.1%) and 14th highest rate of liquid asset poverty (53.1%) in 2016 in the nation.
- St. Louis County had the lowest asset and liquid poverty rates (19.5%, 23.1%) as compared to the Metro area (20.8%, 34.2%).

INDIVIDUALS LIVING BELOW POVERTY LEVEL BY ZIP CODE, ST. LOUIS REGION, 2015

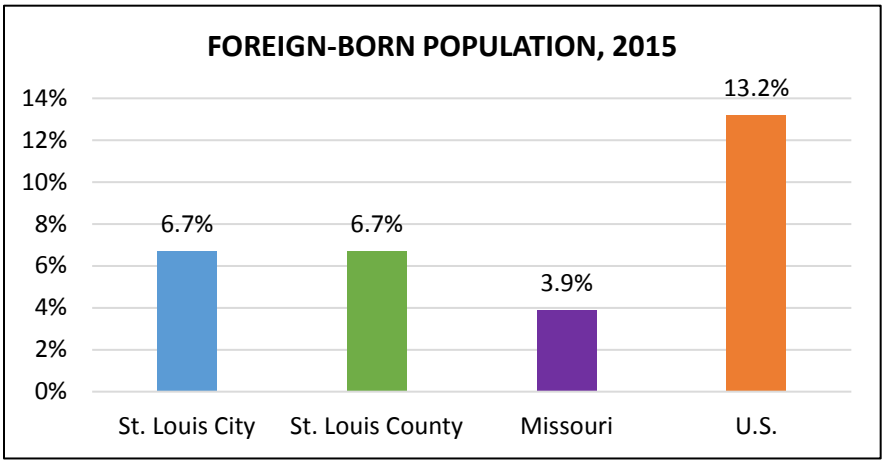


ACS, 5-YR Est., 2011-2015

- Most zip codes in St. Louis City had a medium, high, or very high percent of families living below the poverty line; the only zip code with a low level was 63109 (see map on right).
- St. Louis County poverty levels were highest in the Inner and Outer North sub-regions, and lowest in the West (see map on right).

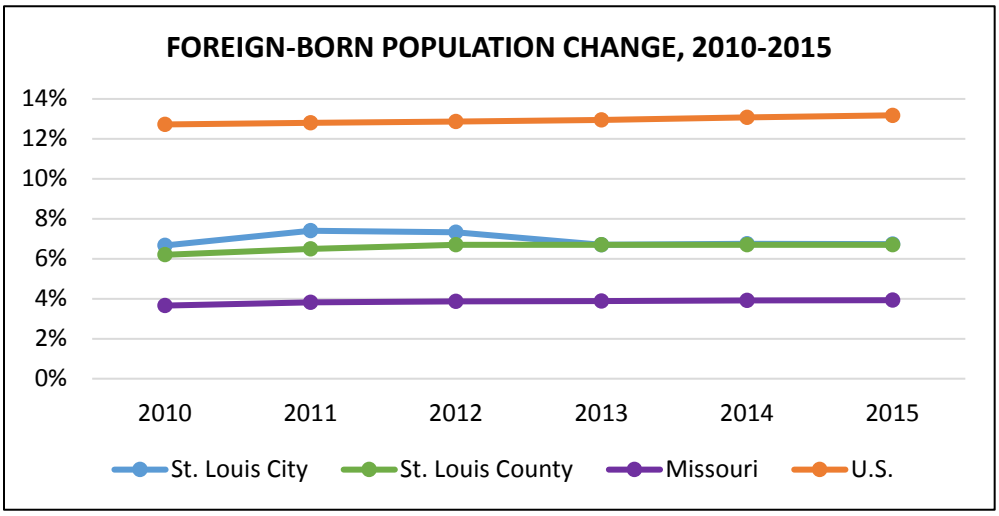
Foreign-Born Population

The term "foreign born" encompasses both immigrants and expatriates. Foreign born are often non-citizens, but many are naturalized citizens of the country in which they live and others are citizens by descent, typically through a parent. In 2012, the largest foreign-born population in the world is in the United States, which was home to 39 million foreign-born residents in 2012.



ACS, 5-YR Est., 2011-2015

- Foreign-born individuals comprised 6.7% of the total population in both St. Louis City and County in 2015.

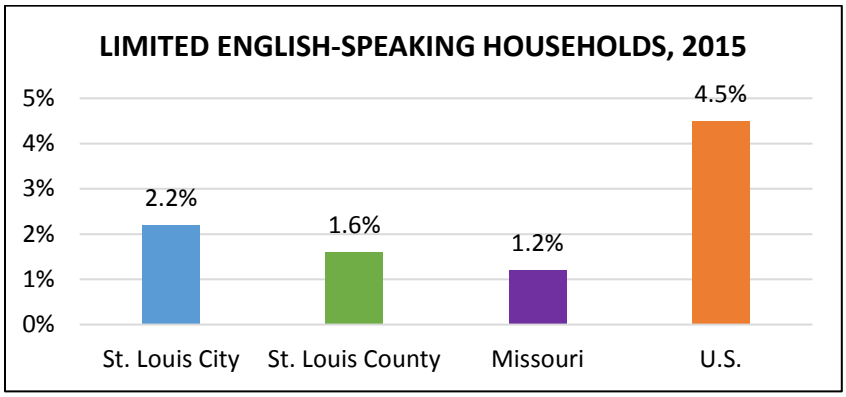


ACS, 5-YR Est., 2011-2015

- From 2010 to 2015, the foreign-born population increased in St. Louis City and County, Missouri, and the United States.
- St. Louis City had a smaller increase (1.1%) than St. Louis County (8.1%).
- St. Louis County had the greatest increase when compared to Missouri (7.4%) and the United States (13.4%).

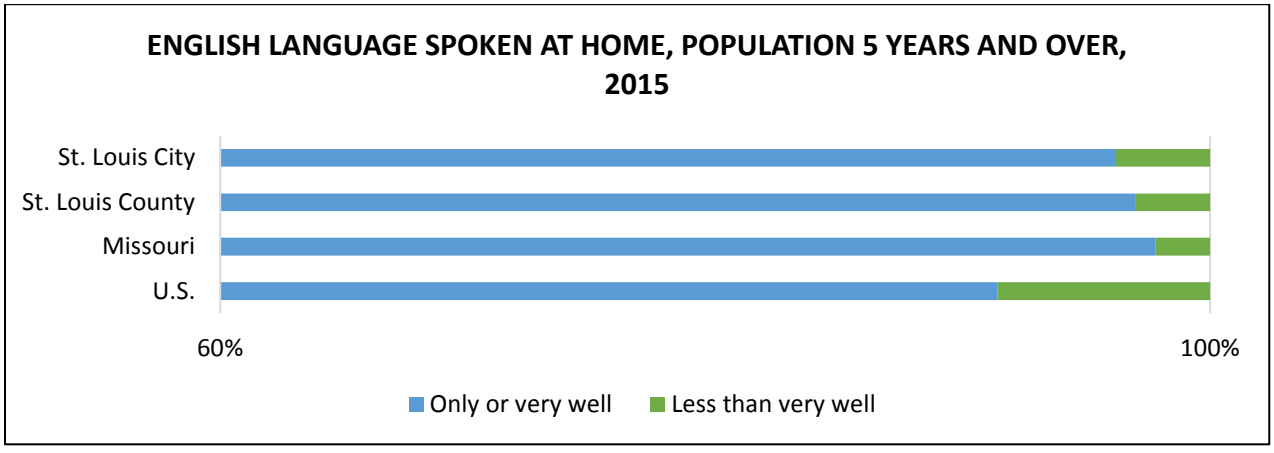
English-Speaking Households

Limited English Proficiency (LEP) refers to anyone above the age of 5 who reported speaking English less than "very well," as classified by the U.S. Census Bureau. In 2013, a majority of LEP individuals were immigrants, but nearly 19% (4.7 million) were born in the U.S., mostly to immigrant parents. Immigrants to the United States come from many different language backgrounds and may be in various stages of English proficiency. For most people residing in the United States, English is the only language spoken in the home. However, many languages other than English are spoken in homes across the country. Data on speakers of languages other than English and on their English-speaking ability provide more than an interesting portrait of our nation. Routinely, these data are used in a wide variety of legislative, policy, legal, and research applications.



ACS, 5-YR Est., 2011-2015

- St. Louis City had a higher percentage (2.2%) of limited English-speaking households in 2015 than St. Louis County (1.6%); both rates were higher than Missouri (1.2%), but lower than the United States (4.5%).

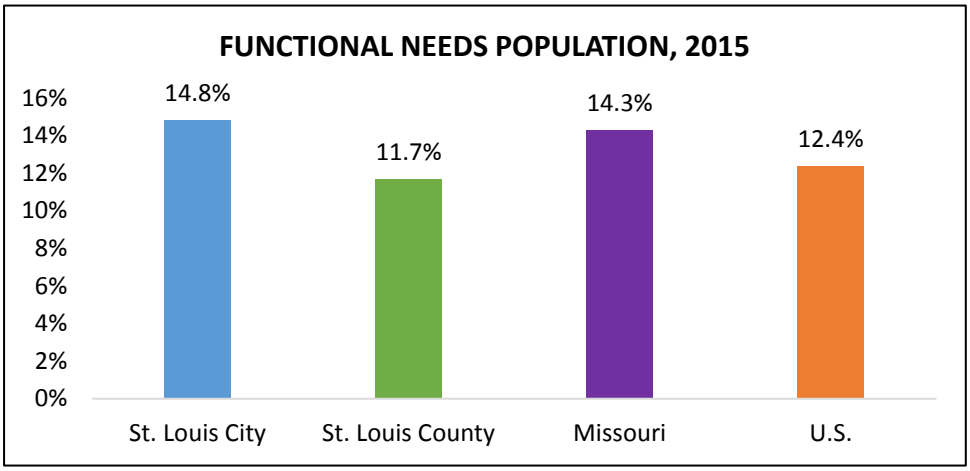


ACS, 5-YR Est., 2011-2015

- St. Louis City and County had similar rates of English being the only language spoken or very well spoken at home among the population aged 5 years and older in 2015 (96.2%, 97.0% respectively).

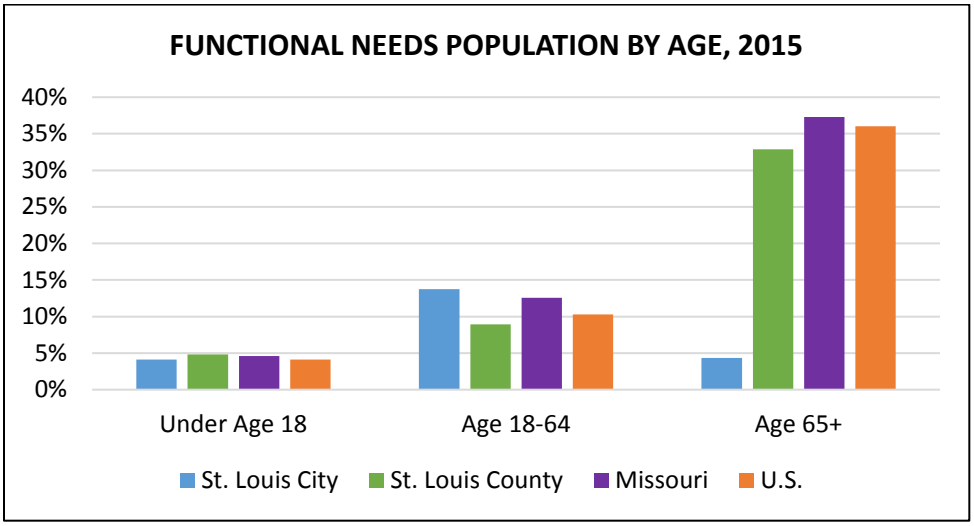
Functional Needs Population

Functional Needs Populations may include the following: persons with visual or mobility disabilities, people who are hard of hearing or deaf, people with weakened immune systems or chronic conditions, people who use American Sign Language as their primary language, non-English speakers, people without personal transportation, infants and young children, women in the late stages of pregnancy, and the elderly.



ACS, 5-YR Est., 2011-2015

- St. Louis City had a similar percentage of its population with functional needs as Missouri, while St. Louis County was more comparable to the United States in 2015.

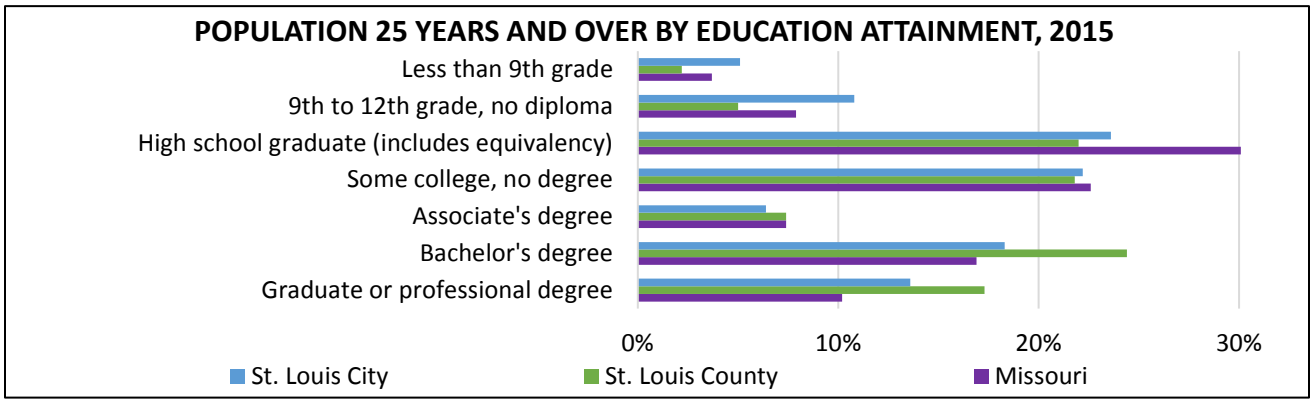


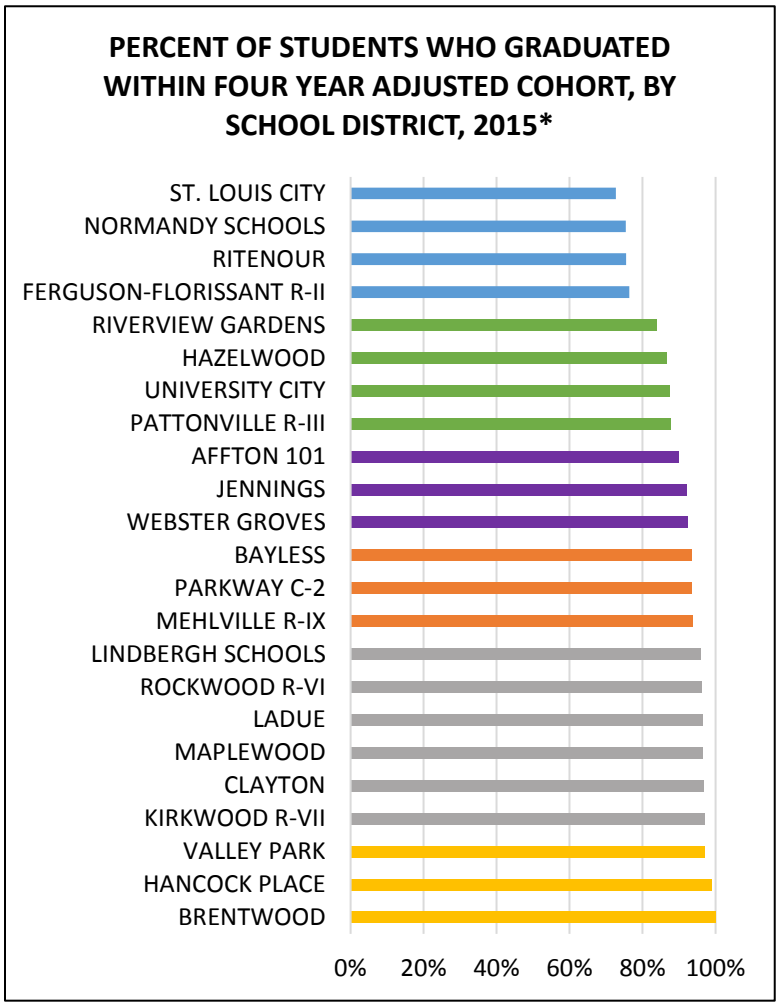
ACS, 5-YR Est., 2011-2015

- When looking at individuals with functional needs by age, the 65 and older age group had the highest percentage as compared to ages 18 - 64 and under 18 across geographies.
- St. Louis City had higher percentages of functional needs individuals in the 18 - 64 (13.7%) and 65and older (43.5%) age groups as compared to St. Louis County (8.9%, 32.9%), Missouri (12.6%,37.3%), and the United States (10.3%, 35.0%).

Educational Attainment

Individuals with more education typically live longer, healthier lives than those with fewer years of schooling. Race, gender, age, disability, and other personal characteristics, including family characteristics, often affect educational opportunities and success in school. People with more education are often spared the health-harming stresses that accompany prolonged social and economic hardship.





ACS, 5-YR Est., 2011-2015 (above) ; Missouri Department of Elementary and Secondary Education, District Adjusted Cohort Graduation Rate, 2015 (left)

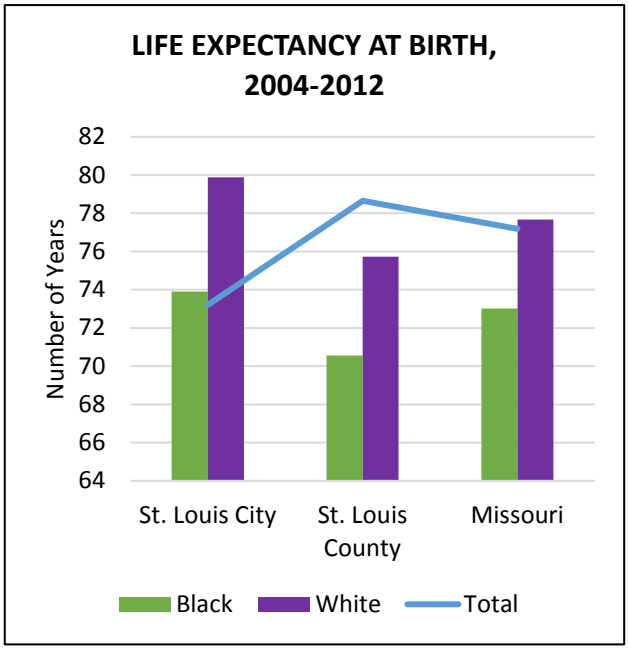
- Both St. Louis City and County had higher rates of individuals with graduate (13.6%, 17.3%) and bachelor degrees (18.3%, 24.4%) than Missouri (10.2%, 16.9%), yet Missouri had a higher rate of high school graduates (31.3%).

- The rate of students graduating high school within their four year cohort ranged from 72.7% (St. Louis City) to 100.0% (Brentwood) across the St. Louis Region's School Districts.

*Not included is the Special School District

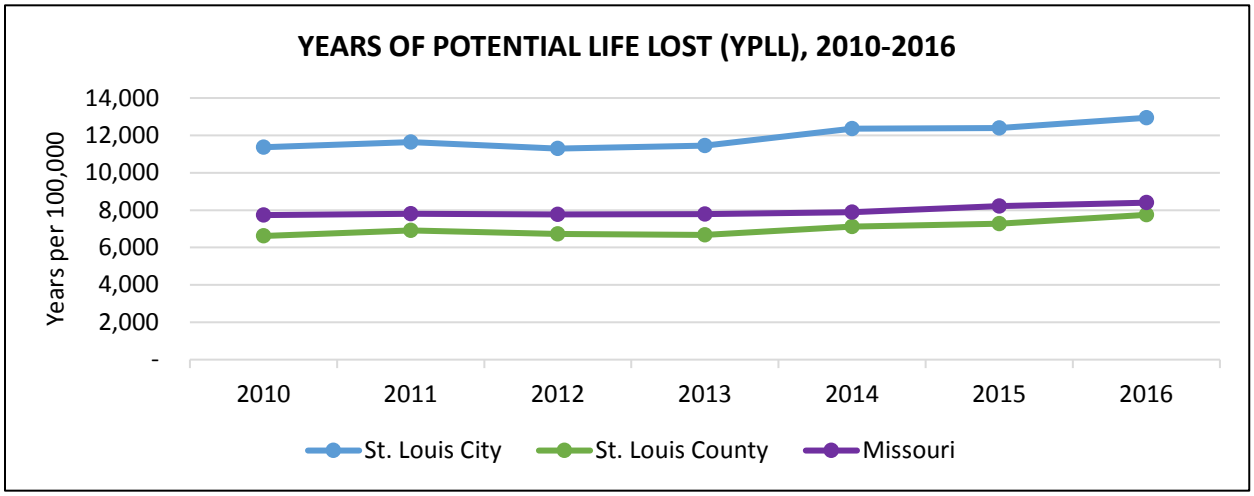
Life Expectancy and Years of Potential Life Lost

Life expectancy (LE) at birth and years of potential life lost (YPLL) both reflect the overall mortality level of a population and gauges the overall health of an area. LE is an estimate of the expected average number of years of life for individuals who were born into a particular population. YPLL estimates the number of life years lost to premature death; most federal and state agencies use age 75 as the benchmark for calculations. Both indicators vary depending on where a person lives and areas with shorter estimates tend to have communities that are poorer and less educated.



- Residents in St. Louis City had the lowest total life expectancy (73.2 years) compared to St. Louis County (78.7 years) and Missouri (77.2 years).
- St. Louis County residents had the highest life expectancy compared to both places and residents lived 5 years longer than those in St. Louis City.
- Black/African American residents had a lower life expectancy in all areas when compared to white residents whose life expectancy ranged between 5 to 6 years longer.
- In St. Louis County, life expectancy for all residents was over 8 years longer than it was for Black/African American residents within 2004 and 2012, on average.

Missouri Department of Health and Senior Services (MODHSS), Bureau of Health Care Analysis & Data Dissemination (top and bottom).



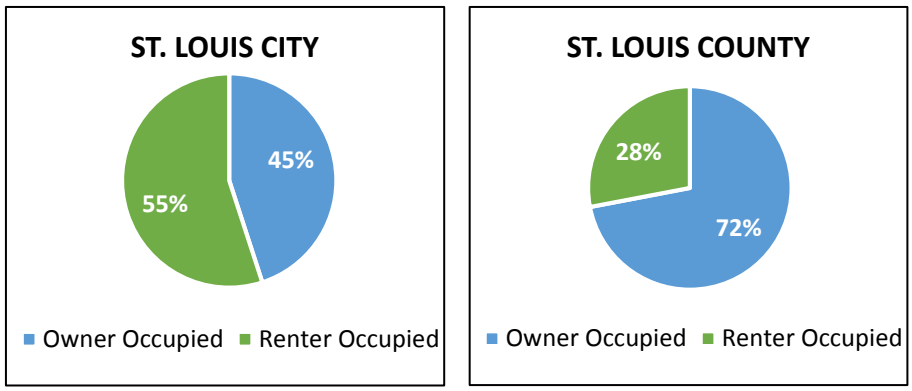
- When compared to St. Louis City and Missouri, St. Louis County residents had the lowest years of potential life lost for every year from 2010 to 2016.
- St. Louis City had a 41% higher number of YPLL, on average, when compared to St. Louis County for the same time period.

OPPORTUNITY MEASURES

Affordable Housing

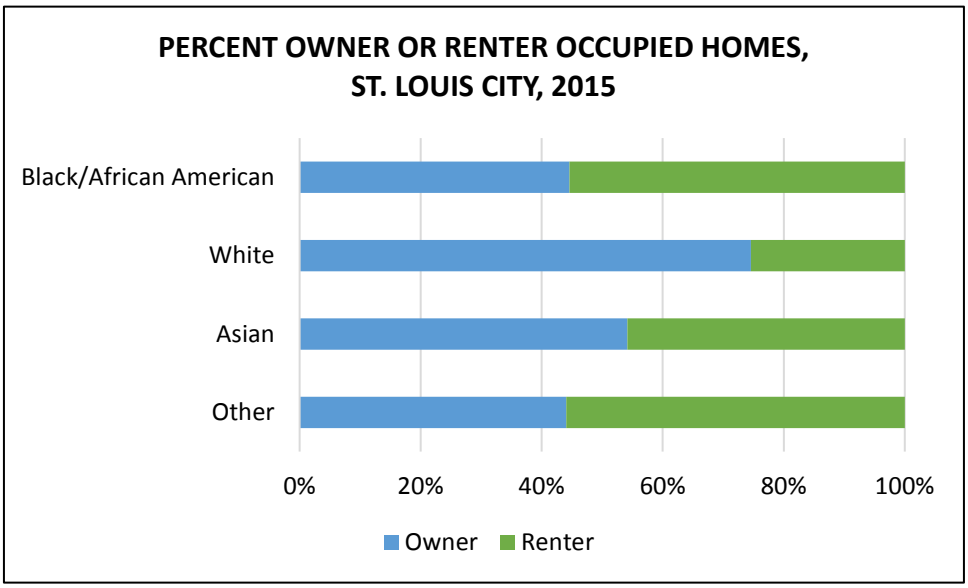
Home ownership has important positive effects on social, physical, and economic outcomes compared to renting. The supply of rental housing has not kept pace with the demand of households who rent. Currently, up to 37% of households rent in the U.S. Ongoing uncertainties with the housing market, overall distrust of homeownership after the recession, and financial hardships can deter young adults from purchasing homes. Unaffordable debt for renters or owners will almost certainly lead to negative health and social outcomes.

PERCENT OWNER OR RENTER OCCUPIED HOMES, 2015



- In 2015, 45% of St. Louis City households owned their home and 72% of St. Louis County households owned their home.

ACS, 5-YR Est., 2011-2015

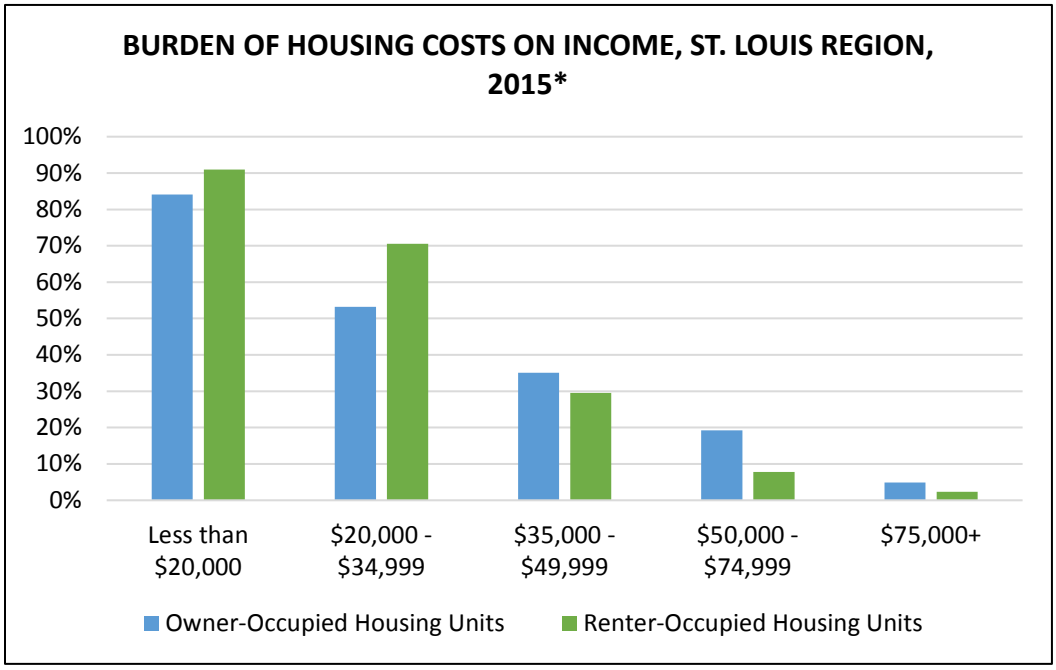


ACS, 5-YR Est., 2011-2015

- When looking at renter- or owner-occupied homes by race in the St. Louis Region, 45% of African Americans, 75% of whites, 54% of Asians, and 44% of other races are homeowners. This suggests that there is a disparity between races when it comes to homeownership.

Affordable Housing

Unaffordable housing and debt for home owners or renters can lead to negative health outcomes. Housing affordability problems often force people into adverse decisions that they would not make if they were not experiencing housing stress (e.g., going without food or medication). Affordable housing allows for more household resources to be directed towards healthcare and healthy foods which contribute to better health outcomes. Furthermore, research suggests that affordable, stable, and well-maintained housing can help reduce problems associated with poor quality housing, alleviate crowding, and reduce exposure to infectious diseases and other stressors. High rent disproportionately burdens low income households and racial and ethnic minorities. According to the Department of Housing and Urban Development (HUD), households spending more than 30 percent of their income on housing costs are considered to be "cost-burdened."



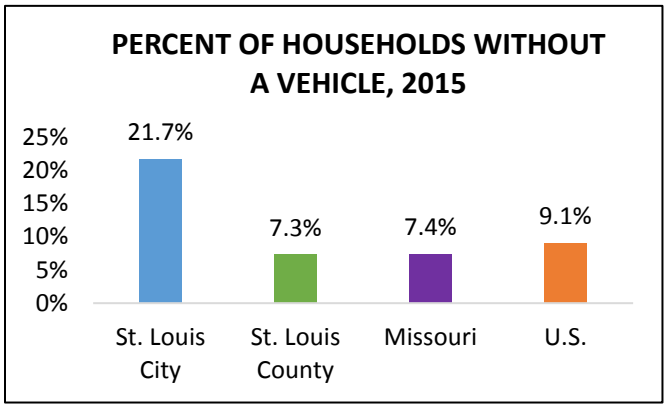
ACS, 5-YR Est., 2011-2015

- In the St. Louis Region, a much higher percentage of homeowners and renters in the lowest income brackets were spending 30% or more of their yearly income on housing costs.
- Over 80% of homeowners and renters who make less than $20,000 are considered “cost-burdened” in the region.

*Percentage of Homeowners and Renters Spending 30% or More of Yearly Income on Housing Costs by Income Bracket

Personal Transportation

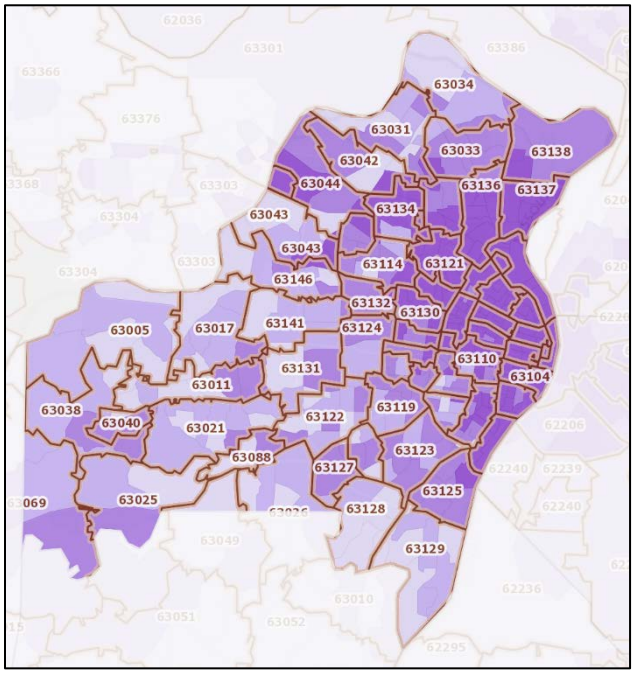
Vehicle ownership can contribute to the wealth gap between households that do and do not own cars. Studies show that workers with cars can log more hours per week at their jobs than can those without cars, which can enable car-owning workers to earn more money. If there is no efficient alternative to automobile travel, households can have limited access not only to jobs, but also to health care, social interaction, and healthy foods. Vulnerable populations, such as low-income or uninsured persons, often lack affordable, adequate, and safe transportation options.

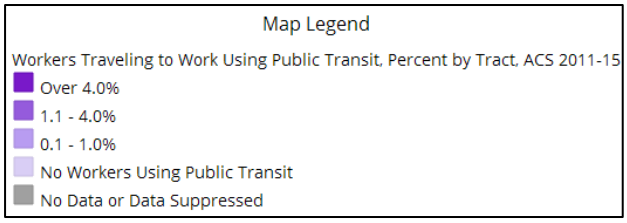


- In St. Louis City, 21.7% of households were without a vehicle, which was almost three times more than Missouri and St. Louis County, and more than double the percent in the United States.
- In St. Louis County, 7.3% of households were without a vehicle which was comparable to Missouri (7.4%) and slightly lower than the United States (9.1%).

ACS, 5-YR Est., 2011-2015

WORKERS COMMUTING BY PUBLIC TRANSIT TO WORK, PERCENT BY TRACT



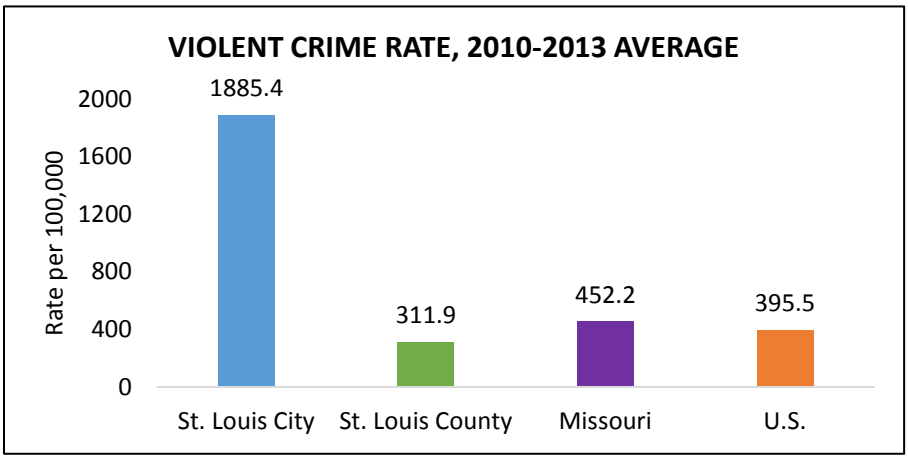


- The percentage of St. Louis City and County residents using public transportation as their primary means of commute to work was 9.43% and 2.48% respectively 2011-2015; both geographies were higher than Missouri (1.49%).
- According to the same data, census tracts in the northeastern St. Louis region had the highest percentage of residents using public transit.

Map courtesy of Community Commons

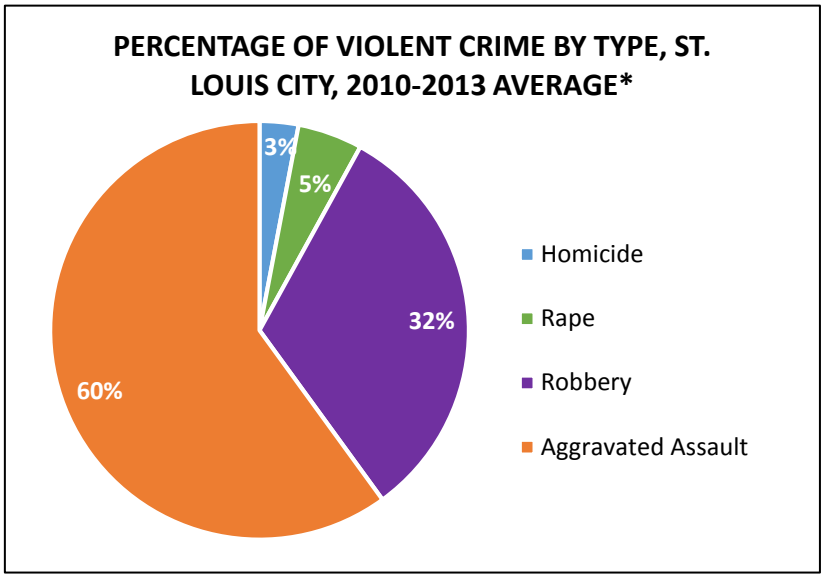
Violent Crime

A violent crime is a crime in which the offender uses or threatens to use violent force on the victim. According to the FBI'S Uniform Crime Reporting (UCR) Program, violent crime includes four offenses: homicide, rape, robbery, and aggravated assault. Violence negatively affects communities by reducing productivity, decreasing property values, injuring victims, and disrupting social services.



Univ. of Wisconsin Public Health Institute & Robert Wood Johnson Foundation, County Health Rankings & Roadmaps (CHRR), 2017

- The rate of violent crime in St. Louis City (1,885.4 per 100,000 persons) was more than four times higher than the rate for Missouri (452.2) and the United States (395.5).
- St. Louis County experienced a violent crime rate of 311.9 per 100,000 persons, which was slightly lower than Missouri and the United States.



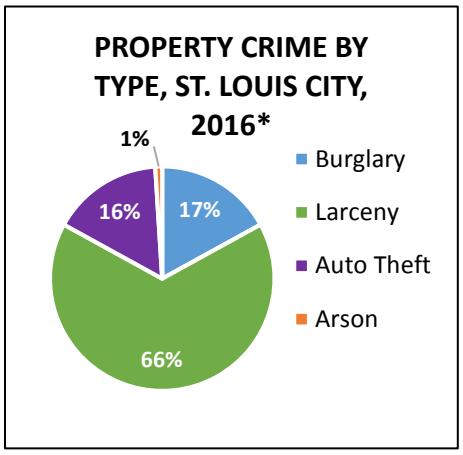
- When looking at the types of violent crimes that were committed in St. Louis City, 60% were aggravated assault, 32% were robbery, 5% were rape and 3% were homicide between 2010 and 2013, on average.

*It should be noted that violent crime reported was the location of the incident, not necessarily the residency of the victim or the offender.

St. Louis Metropolitan Police Department, 2010-2013

Property Crime

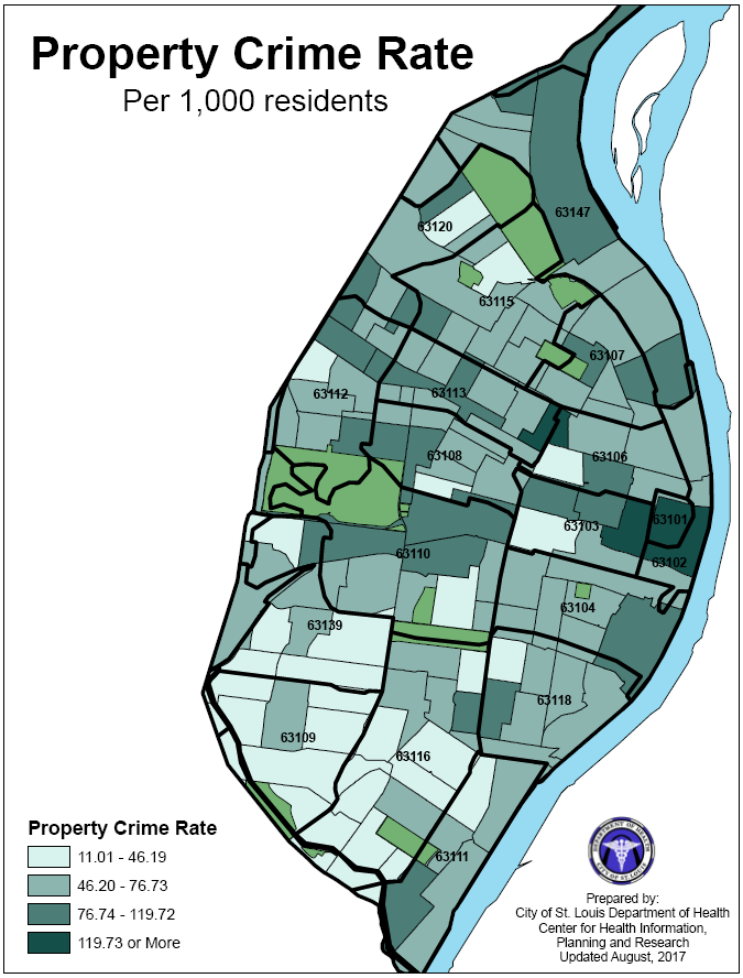
Property crime includes crimes that are related to theft or the destruction of someone's property. According to the FBI's UCR program, a property crime includes the offenses of burglary, larceny, motor vehicle theft, and arson. Larceny is defined as unlawfully taking away the property of another. This can include pocket-picking, shoplifting, stealing motorcycles, or automobile parts. While the immediate effect of crime is usually felt by the individual upon whom the crime was committed, the community at large is also affected by criminal activity. Members who remain in crime-filled areas may feel unsafe in general, particularly if they witness crime.



St. Louis Metropolitan Police Department

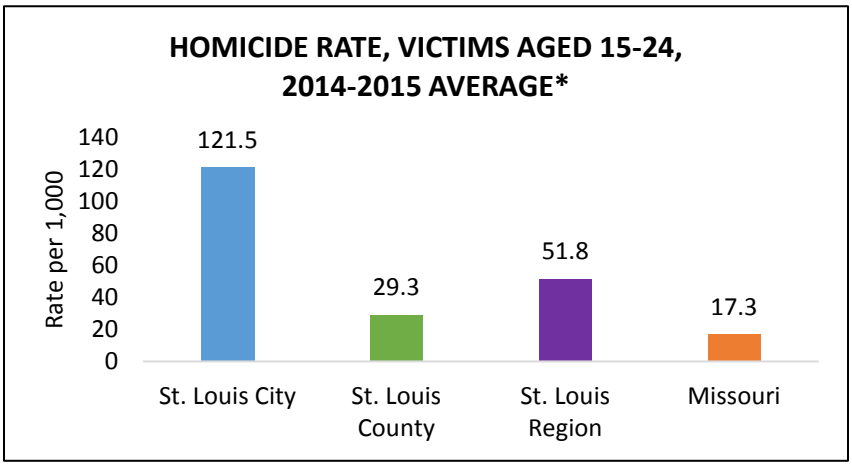
- The most common type of property crime committed St. Louis City in 2016 was larceny.
- The rate of all property crime in 2016 was higher in the downtown and northern portions of St. Louis City.

*Property crime was reported by incident location and not necessarily the residency of the victim or offender.



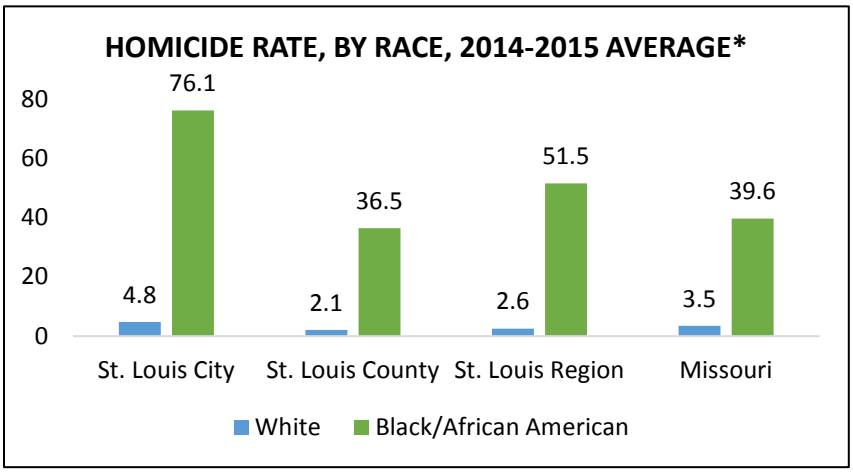
Homicide

Homicide is defined as the unlawful killing of another human being. The legal definition of homicide includes several types of acts including intentional crimes like murder and involuntary acts like manslaughter. There is abundant clinical evidence indicating that following a homicide, family members are at risk for developing sustained and dysfunctional psychological reactions. Specialized treatment is needed in the aftermath of a homicide to lessen the long-term psychological impact for survivors and help co-victims cope with their grief and devastation while restoring control in their lives.



MODHSS

- St. Louis City had a homicide rate that was four times higher than St. Louis County, on average, between 2014 and 2015 (121.5 homicides per 100,000 persons versus 29.3 homicides per 100,000 persons).



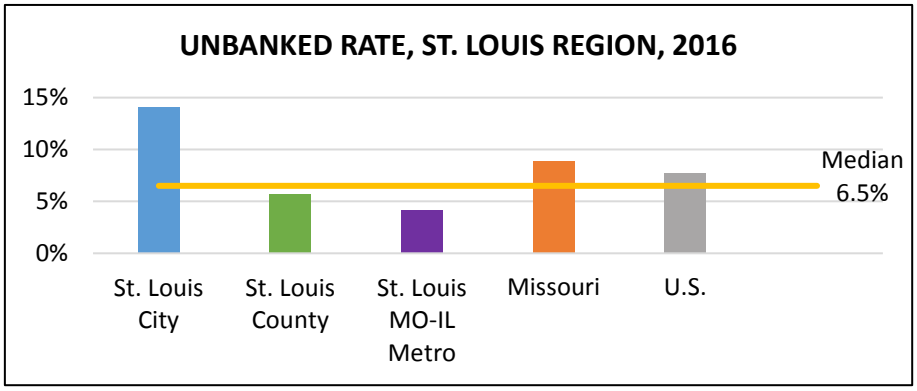
MODHSS

- St. Louis City's homicide rate was seven times higher than Missouri's rate.
- St. Louis County had a rate that was almost double that of Missouri.

*The location of the homicide is based on the residency of the victim

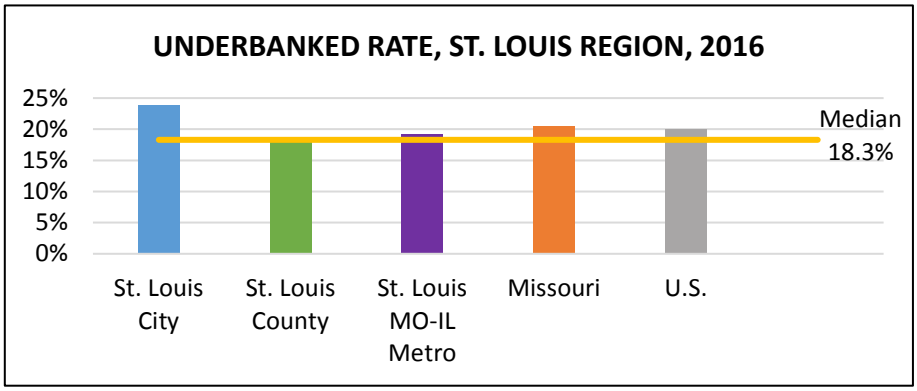
Financial Security

Opening a bank or credit union account is often the first step to saving, building credit, and planning for the future; but almost ten million U.S. households are without one. Households without either a savings or checking account – defined as "unbanked" – can often spend a significant amount of money on using financial services. Households who are underbanked are defined as having banking accounts but use costly financial services for transaction or credit needs such as money orders and check cashing services. Underbanked households are also more likely to experience financial loss or theft, creating further challenges in building credit and achieving financial security as compared to banked households.



2013 FDIC National Survey of Unbanked and Underbanked Households, for US, States, DC and 69 largest MSAs. Estimates at smaller geographies are derived from CFED's statistical modeling process, FDIC, and ACS 5-YR Est., 2009-2013. The median value represents counties with more than 250,000 residents (2013 FDIC).

- Of counties with more than 250,000 people, St. Louis City had the 13th highest unbanked rate (14.1%) in 2016 in the nation.
- St. Louis County had a lower unbanked rate (5.7%) than St. Louis City, Missouri (8.9%), the U.S. (7.7%), and the median (6.5%), but the MO-IL metro area was the lowest (4.2%).



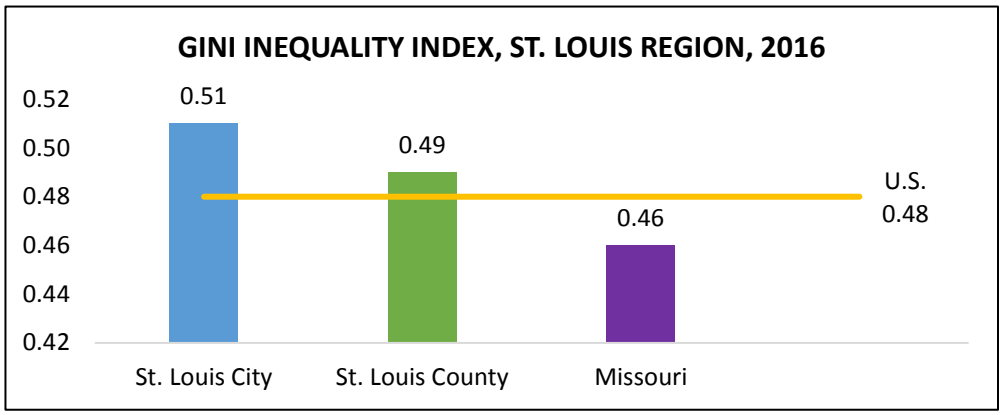
2013 FDIC

- Of counties with more than 250,000 people, St. Louis City had the 11th highest underbanked rate (23.8%) in 2016 in the nation.
- St. Louis County had the lowest underbanked rate (17.9%) when compared to St. Louis City, the MO-IL metro area (19.2%), Missouri (20.4%), the U.S. (20.0%), and the median (18.3%).

Financial Security

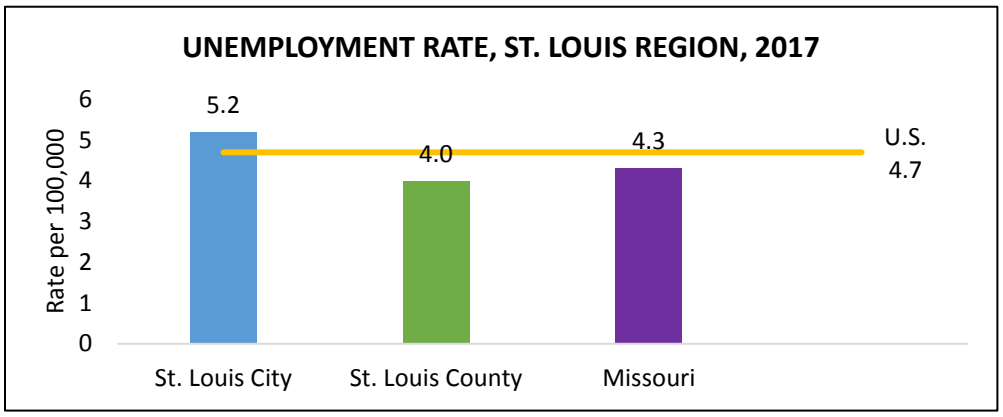
Gini index values range from zero to one. The index is often used to quantify economic inequality by measuring income distribution among a population. It is not an absolute measurement of income or wealth. A value of one indicates perfect inequality where only one person or household has any income. A value of zero indicates perfect equality, where all households have equal income.

Unemployment creates financial instability and barriers to access items such as insurance coverage, health services, healthy food, and other necessities that contribute to poor health status. The unemployment rate includes the civilian, non-institutionalized population age 16 and older (non-seasonally adjusted).



ACS, 5-YR Est., 2011-2015, census tract geography

- Both St. Louis City and St. Louis County had a higher Gini inequality value than Missouri (0.46) value or the U.S. (0.48).
- The St. Louis City value (0.51) was highest compared across all geographies. The St. Louis County value was 0.49 for income inequality in 2016.



U.S. Department of Labor, Bureau of Labor Statistics, April 2017, county geography

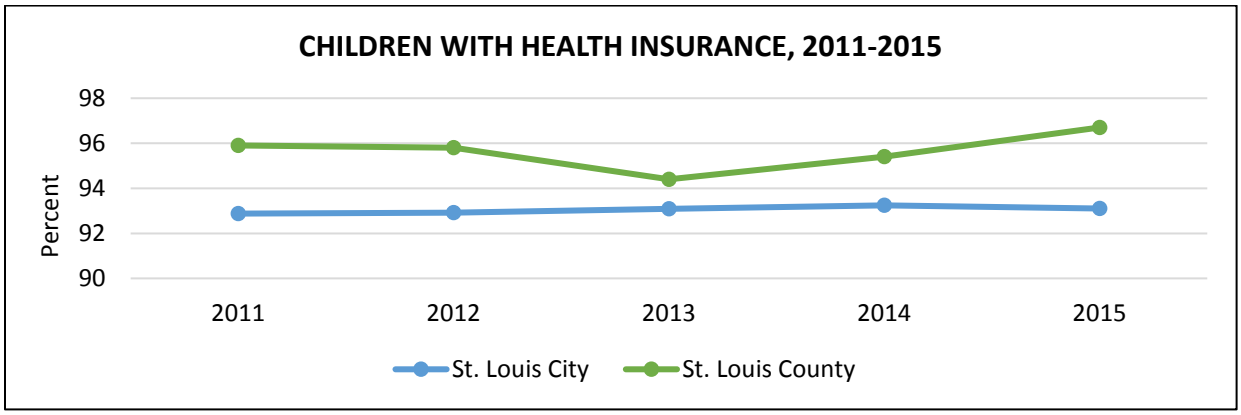
- St. Louis County had the lowest unemployment rate (4.0%) when compared to St. Louis City (5.2%), Missouri (4.3%), and the U.S. (4.7%).
- The St. Louis City value was the highest compared across all geographies in 2017.

ACCESS TO AND LINKAGE WITH CLINICAL CARE

Health Insurance – Children

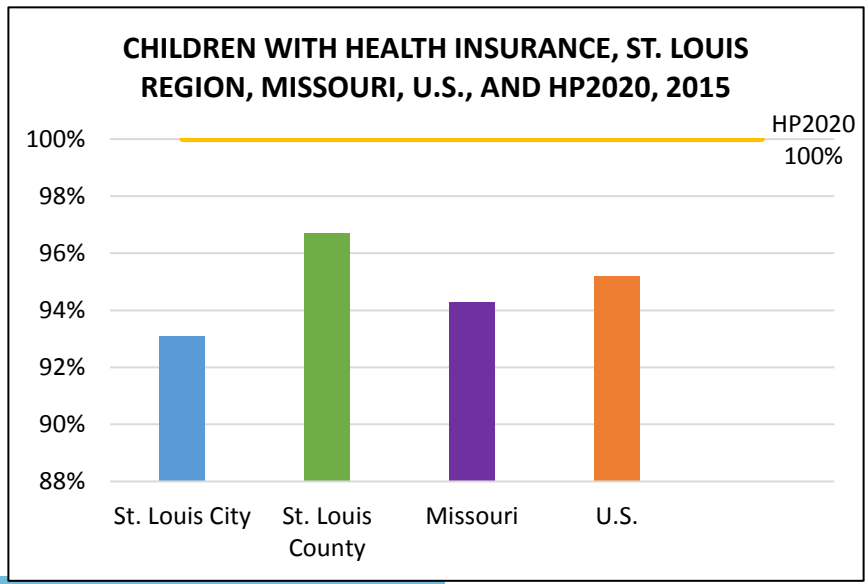
While the number of uninsured children in the U.S. is at an all-time low, nearly 3.9 million children under the age of 18 remain uninsured. Many of those children are eligible for Medicaid or the Children's Health Insurance Program (CHIP) but are not enrolled. Many of these children are affected by homelessness and other adverse childhood experiences.

Schools are critically positioned to help close the enrollment gap. Research continues to show that children learn best when they are physically and emotionally healthy. CHIP is administered by states within broad federal guidelines and jointly funded by the federal government and states. Since the implementation of the Affordable Care Act (ACA) in 2013, the number of children with health insurance has been increasing nationally.



ACS 5-YR & 3-YR Est., TableB27001

- The percent of children in St. Louis City with any type of health insurance from 2011 to 2015 has remained steady over time.



- The percent of children in St. Louis County with any type of health insurance from 2011 to 2015 increased by nearly one percent (0.8%).

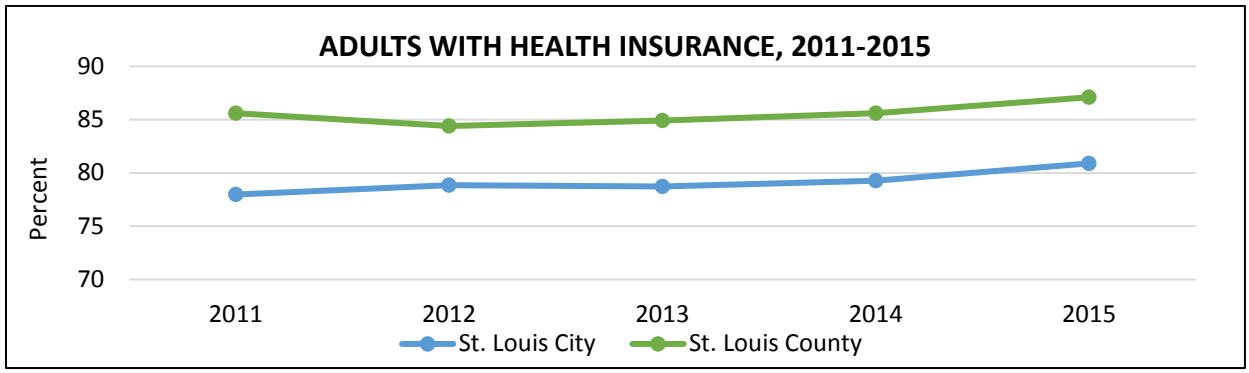
- None of the measured populations (St. Louis City, St. Louis County, Missouri, U.S.) had reached the Healthy People 2020 goal for 100% child healthcare coverage in 2015.

ACS5-YR & 3-YR Est., TableB27001

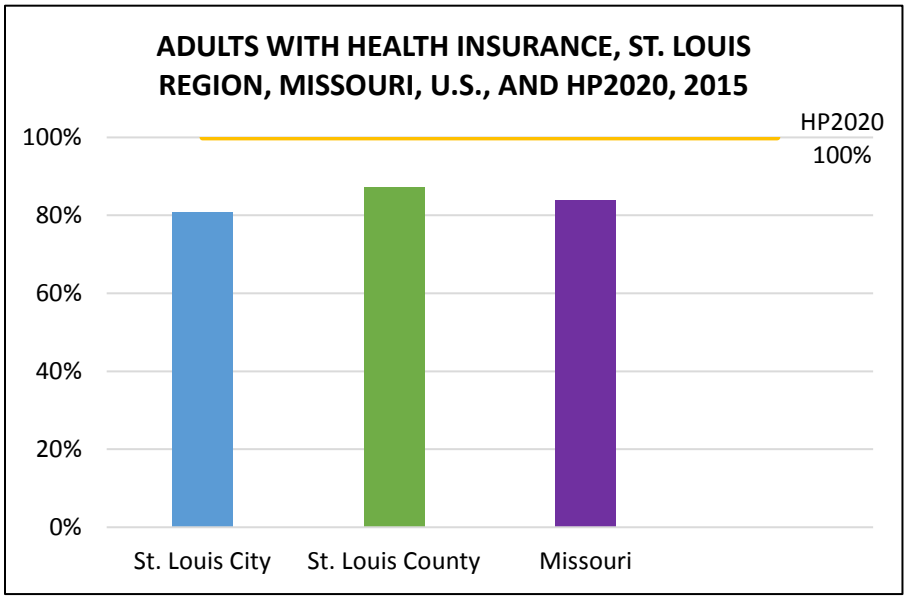
Health Insurance – Adults

To obtain high-quality care, patients must first gain entry into the health care system. Health insurance coverage helps patients gain entrance but is not the only measure for access to care. Other measures include having a usual source of care or primary medical home, difficulties encountered when seeking care such as adequate transportation, and receiving care as soon as needed. Historically, the U.S. population has experienced inconsistent access to care based on race, ethnicity, socioeconomic status, age, sex, disability status, sexual orientation, gender identity, and residential location.

The Affordable Care Act was the most far-reaching effort to improve access to care since the enactment of Medicare and Medicaid in 1965. Provisions to increase health insurance options for young adults, early retirees, and Americans with pre-existing conditions were implemented in 2010. Open enrollment in health insurance marketplaces began in October of 2013 with coverage beginning in January of 2014. Expanded access to Medicaid in many states began in January of 2014, with a few states opting to expand Medicaid earlier and others not expanding Medicaid at all.



ACS 5-YR & 3-YR Est., TableB27001

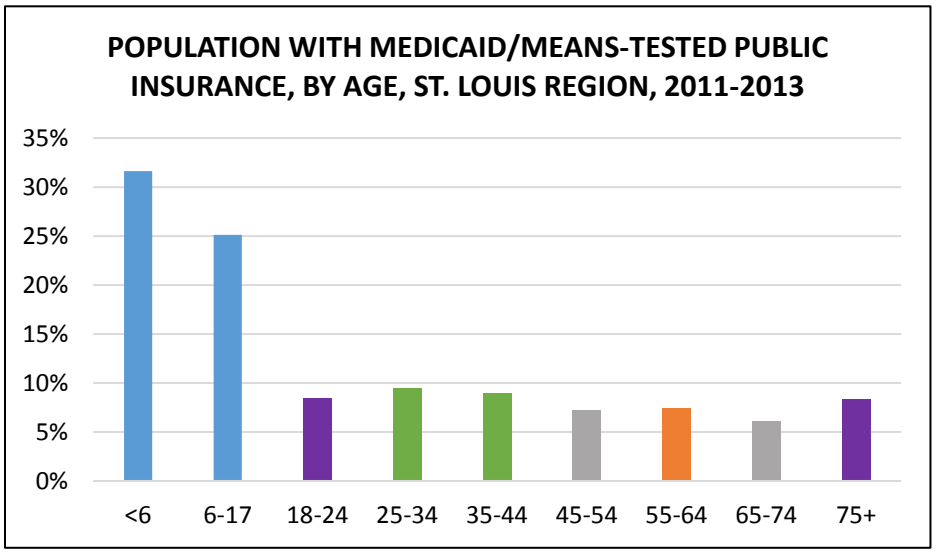


- Since the enactment of the ACA in 2011, the number of adults with health insurance has been increasing.
- None of the measured populations (St. Louis City at 80%, St. Louis County at 87.1% and Missouri at 83.8%) in 2015 had reached the Healthy People 2020 goal for 100% adult healthcare coverage.

ACS 5-YR & 3-YR Est., TableB27001

Health Insurance – Medicaid

Medicaid provides health coverage to millions of U.S. citizens, including eligible low-income adults, children, pregnant women, elderly adults, and people with disabilities. Medicaid is administered by the states, following federal requirements. The program is funded jointly by states and the federal government. States establish and administer their own Medicaid programs and determine the type, amount, duration, and scope of services within broad federal guidelines. Federal law requires states to provide certain mandatory benefits and allows states the choice of covering other optional benefits. Mandatory benefits include services like inpatient and outpatient hospital services, physician services, laboratory and x-ray services, and home health services, among others. Optional benefits include services like prescription drugs, case management, physical therapy, and occupational therapy.

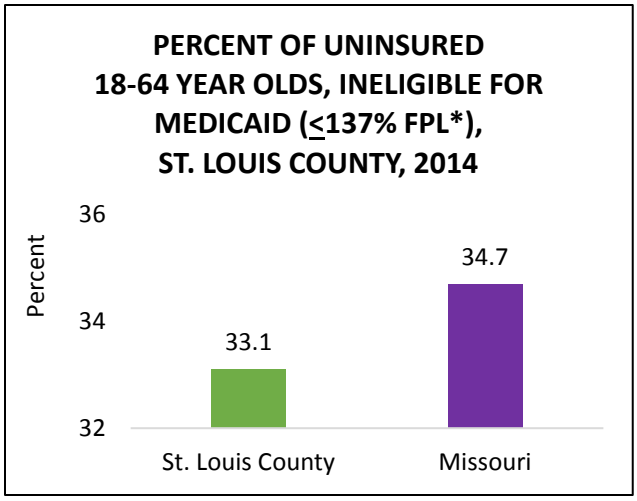


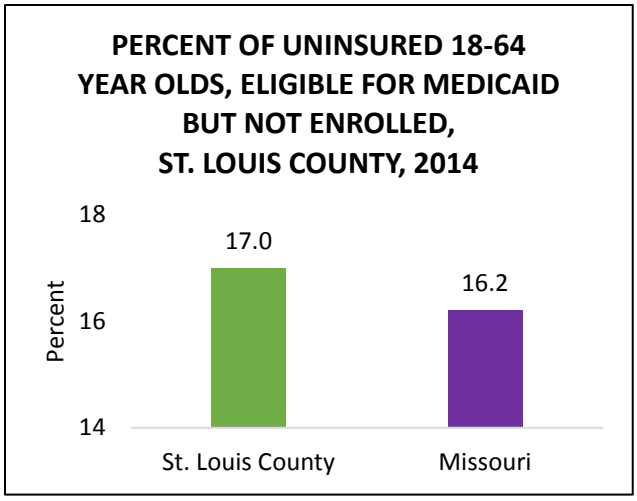
ACS 3-YR Est., 2011-2013

- This chart shows the percentage of residents, by age, with insurance through Medicaid in the St. Louis Region from 2011 through 2013.
- Children age 17 or younger were the largest population age group insured by Medicaid.
- Children under age 6 comprised nearly 80% of the population with insurance through Medicaid, followed by 6-17 year olds (60%).

Uninsured Persons

Uninsured people are less likely to receive medical care, more likely to die early, and more likely to have poor health status. Lack of adequate coverage makes it difficult for people to get the health care they need and, when they do get care, burdens them with large medical bills. Individuals without medical insurance and without a regular and easily-accessible source of care are found more likely to postpone medical care and experience more difficulty obtaining care in comparison to those with insurance and regular access to care.





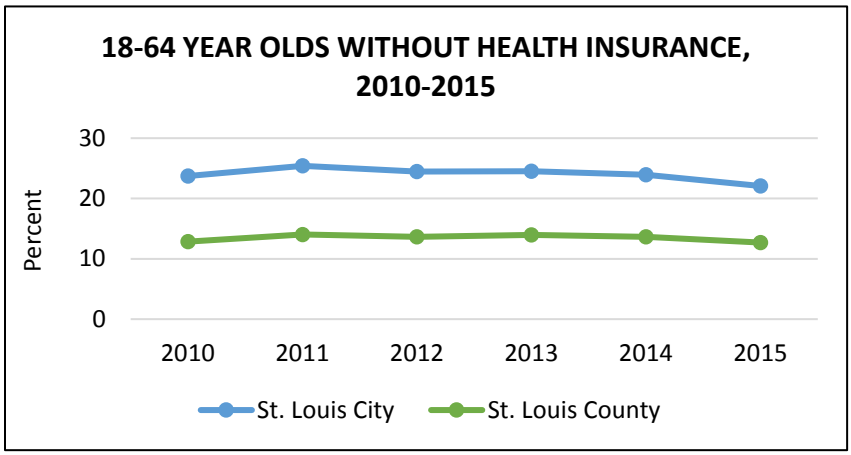
ACS 5-YR Est.

- This indicator shows the percentage of uninsured adults at or below 137% of the Federal Poverty Level (FPL)* between ages 18 and 64 who are ineligible for Medicaid.
- Over 33% of adults under 65 who have incomes at or below 137% of the FPL are not eligible for Medicaid, meaning they don't have a feasible source of coverage..
- St. Louis' healthcare safety net – a system of community-based providers who offer health services to low-income people, including the uninsured – plays an essential role in maintaining and expanding access to care for vulnerable populations.

- This indicator shows the percentage of uninsured adults between 138-400% of the FPL under age 64 who are eligible for Medicaid but not enrolled.
- Even though eligible for Medicaid coverage according to income guidelines, 17% of adults under age 65 are not enrolled in the insurance program.
- Providing Medicaid-eligible individuals with in-person help; information about covered benefits (e.g., doctors visits, hospitals stays, preventative care, prescriptions) and guaranteed coverage despite pre-existing conditions are a few strategies to increase enrollment.

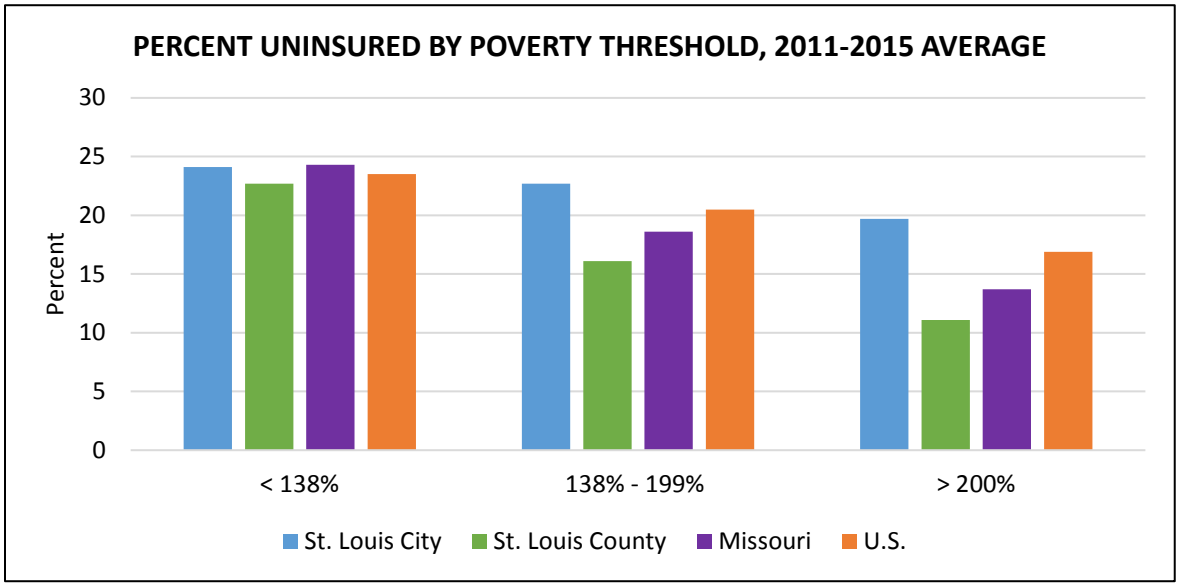
Uninsured Persons

Oftentimes, people in Missouri age 18-64 without children are ineligible for Medicaid. To bridge the gap in care for individuals without medical insurance coverage in the St. Louis Region, Gateway to Better Health program was implemented in 2012. It covers primary, specialty, and urgent care services for individuals up to 100% of the Federal Poverty Level. To learn more, visit www.stlgbh.com.



- From 2010 to 2015, the number of adults aged 18 to 64 without health insurance decreased by 6.9% in St. Louis City and by 1.1% in St. Louis County.
- St. Louis City had a higher average percent of adults over time who were uninsured (24%) compared to St. Louis County (13%).

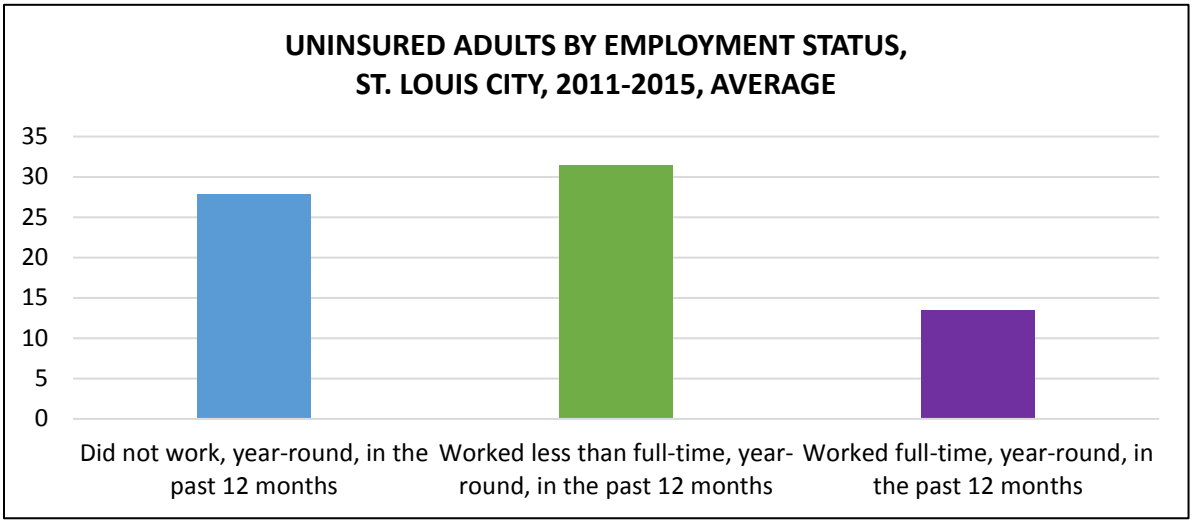
ACS 5-YR Est. (top and bottom)



- When looking at poverty thresholds for 2011-2015, on average, the lowest percent of uninsured individuals were those at greater than 200% of the poverty threshold while the highest percent were those at less than 138% for St. Louis City (24.1%) and County (22.7%), Missouri (24.3%, and the U.S. (23.5%).
- St. Louis City had the highest percent of uninsured individuals regardless of poverty threshold, while the lowest percent were in St. Louis County.

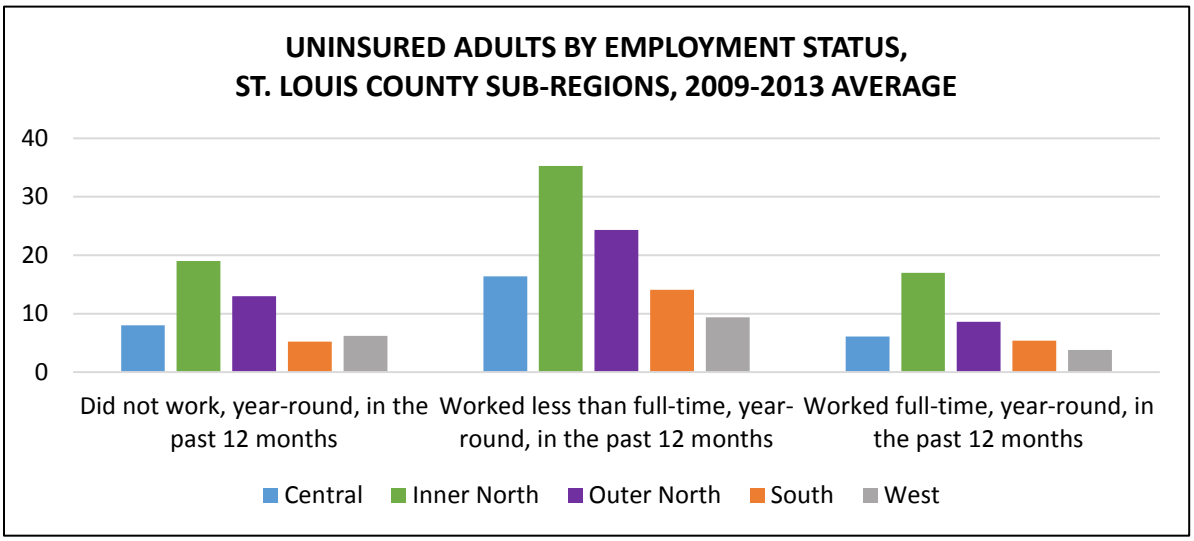
Uninsured Persons

Most of the U.S. population relies on employer-provided health insurance. Thus, unemployment affects access to health care, due to both loss of employer-sponsored health insurance and reduced income.



MODHSS, Missouri Information for Community Assessment (MICA) ACS 5-YR Est.

- Across all three employment categories, those adults that worked less than full-time, year round in the past 12 months had the highest uninsured percentage (31.4%).
- The lowest percentage of uninsured were those adults who worked full-time, year round in the past 12 months (13.4%).

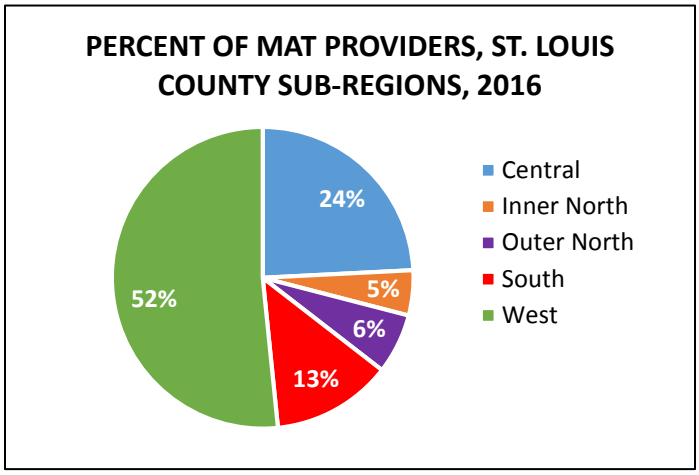


ACS, 5-YR Est.

- The inner north sub-region had the highest percentage of uninsured adults of all five sub-regions.
- The west sub-region had the lowest percentage of uninsured adults in the full-time (3.8%) and less than full-time (9.35%) categories.

Healthcare Facilities and Providers

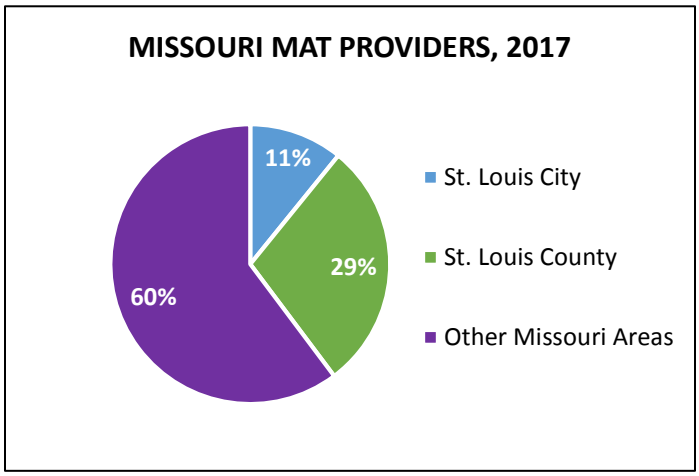
The expansion of access to medically-assisted treatment (MAT) is a safe and effective strategy to decrease the frequency and amount of opioid use as well as reduce the risk of overdose when combined with behavioral therapies. MAT is delivered by prescribing medications (i.e. buprenorphine, methadone, extended-release injectable naltrexone) along with comprehensive, social, psychological, and rehabilitation services that address all the needs of the individual. This indicator shows the distribution of MAT providers in each sub-region of St. Louis County, in St. Louis City, and in Missouri.



- The St. Louis County west sub-region had the highest percent of MAT providers, but had a lower rate of drug poisoning deaths due to heroin in 2010 – 2014.
- The inner north and outer north sub-regions had the lowest percent of MAT providers, but had a higher rate of drug poisoning deaths due to heroin from 2010 – 2014 than St. Louis County as a whole.*

*See the Chronic Disease and Injury Prevention section for more information

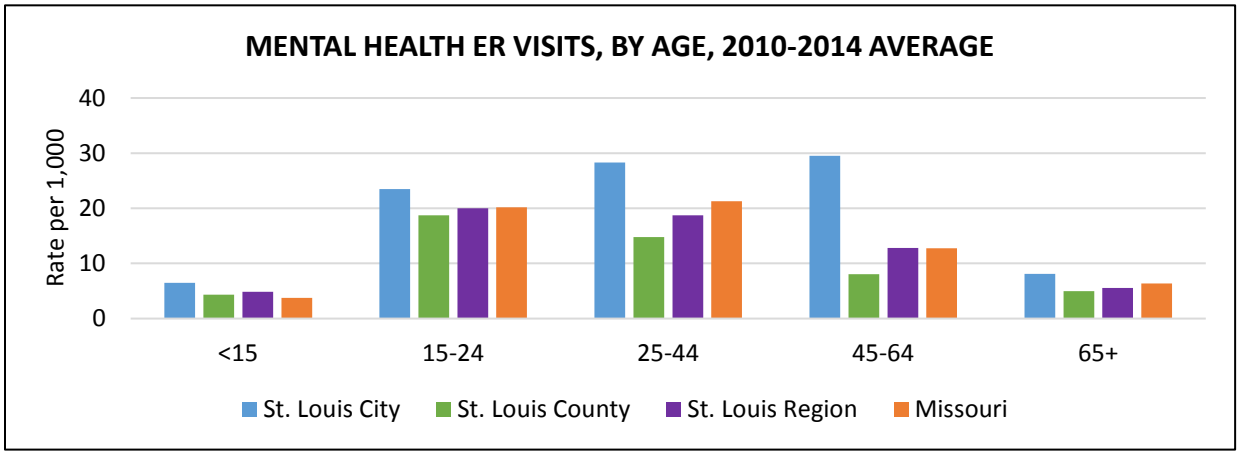
SAMHSA Buprenorphine Treatment Physician Locator, Missouri, October 17, 2016 and August 3, 2017 (top and bottom)



- The number of MAT providers in St. Louis City in 2017 was 27. St. Louis County had 72 and Missouri had 249 in 2017. Together, St. Louis City and St. Louis County make up 40% of Missouri's MAT providers.
- While the rate of MAT providers per population is not presented, the number of opioid deaths* in the St. Louis Region has increases since 2010. That could suggest a need for qualified physicians to serve as MAT providers.

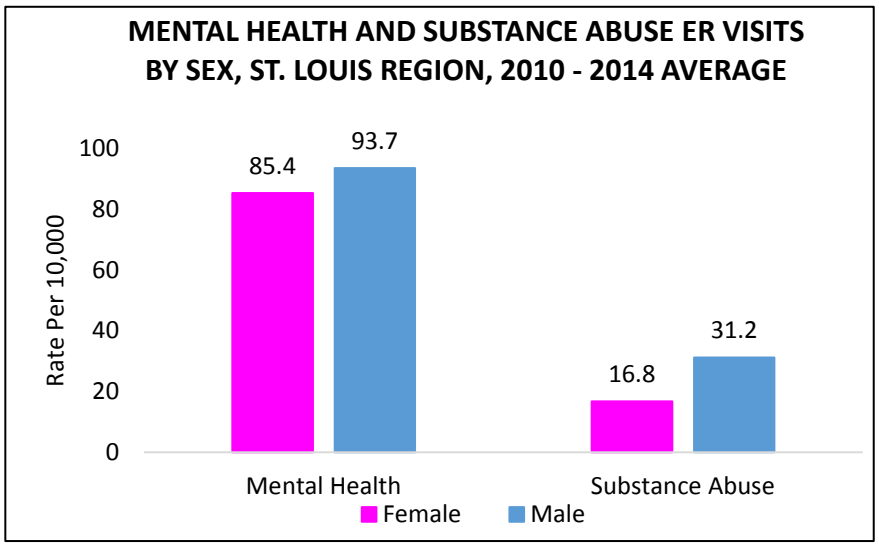
Emergency Room (ER) Visits – Mental Health

Mental health ER visit cases include: adjustment disorders; anxiety disorders; attention deficit conduct and disruptive behavior disorders; delirium, dementia, amnestic and other cognitive disorders; disorders usually diagnosed in infancy, childhood, or adolescence; mood disorders; personality disorders; schizophrenia and other psychotic disorders; and impulse control disorders not elsewhere classified. Mental disorders are one of the leading causes of disability in the U.S. Unstable mental health can lead to suicide, which accounts for the death of approximately 30,000 U.S. Residents every year. Proper management of mental and emotional health problems can prevent psychological crises warranting hospitalization. According to the National Center for Health Statistics, treatment for mental disorders is a major cause of hospitalization for children and adolescents between the ages of 10 and 21 years.



MODHSS, MICA

- The rate of mental health ER visits was the highest in St. Louis City across all age groups.
- Among the 45 to 64 age group, the rate of mental health ER visits in St. Louis City was more than three and a half times that of St. Louis County.

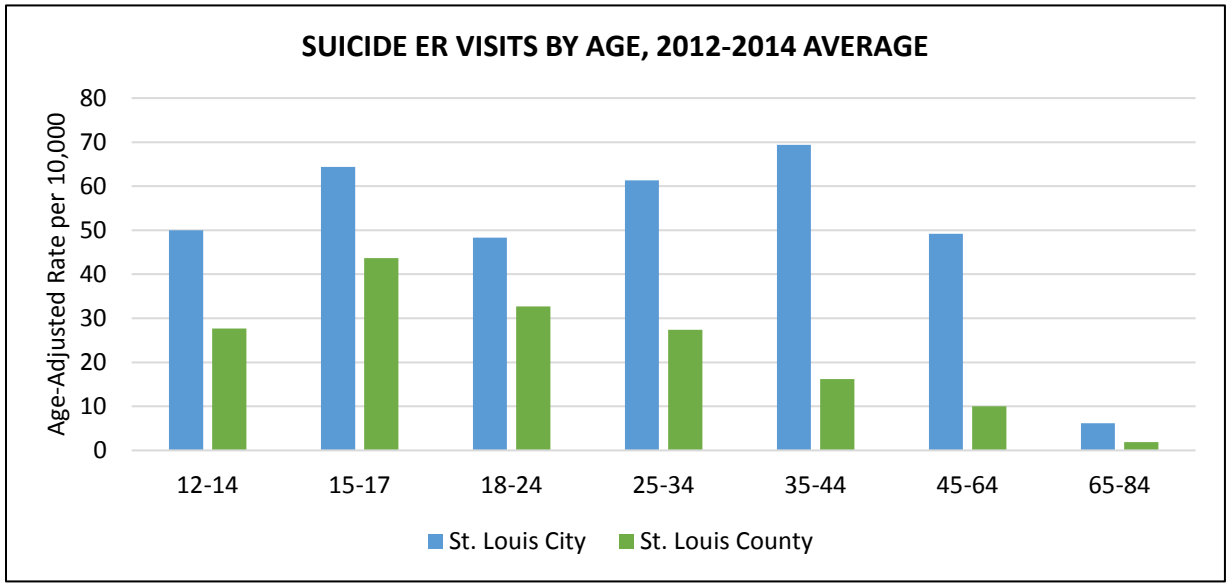


- More males than females visited the ER for both mental health and substance abuse regionally.

MODHSS, MICA

Emergency Room Visits – Suicide

This indicator shows the average annual age-adjusted emergency room visit rate due to suicide or intentional self-inflicted injury per 10,000 population aged 18 years and older. Visits are included if a primary or additional diagnosis code indicates suicide or intentional self-inflicted injury. Suicide among adolescents is a serious public health issue in the United States and is a leading cause of death for youth. Approximately 157,000 youth (ages 12 to 17 years) receive medical care at Emergency Rooms (ERs) for intentional self-inflicted injuries each year. Nearly 500,000 U.S. adults (ages 18 and older) receive medical care at ERs for intentional self-inflicted injuries each year.

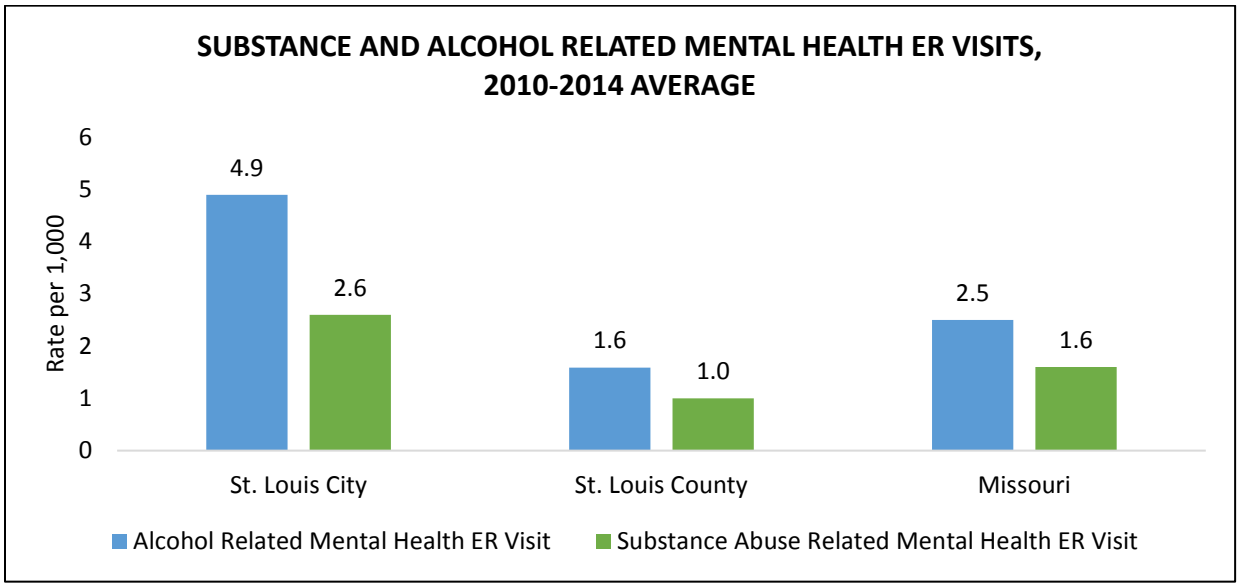


MODHSS, MICA

- The highest rate of suicide ER visits in St. Louis City were among the 35 to 44 (69.4 per 10,000) and 15 to 17 (64.4 per 10,000) age groups from 2012 to 2014.
- The highest rate of suicide ER visits in St. Louis County were among the 15 to 17 (43.7 per 10,000) and 18 to 24 (32.7 per 10,000) age groups from 2012 to 2014.

Emergency Room Visits – Substance Use Disorders

Substance use disorders are major public health issues that have a strong impact on individuals, families, and communities. The use of illicit drugs, alcohol misuse, and addiction to pharmaceuticals is linked to serious health conditions such as heart disease, cancer, and liver diseases, exacting over $600 billion annually in costs related to lost work productivity, healthcare, and crime. Substance use disorders also contribute to a wide range of social, physical, mental, and public health problems such as teenage pregnancy, HIV/AIDs, STIs, domestic violence, child abuse, motor vehicle crashes, crime, homicide, and suicide. This indicator shows the average annual age-adjusted emergency room visit rate due to substance use disorder per 10,000 population aged 18 years and older. Cases of alcohol-related disorders are excluded.

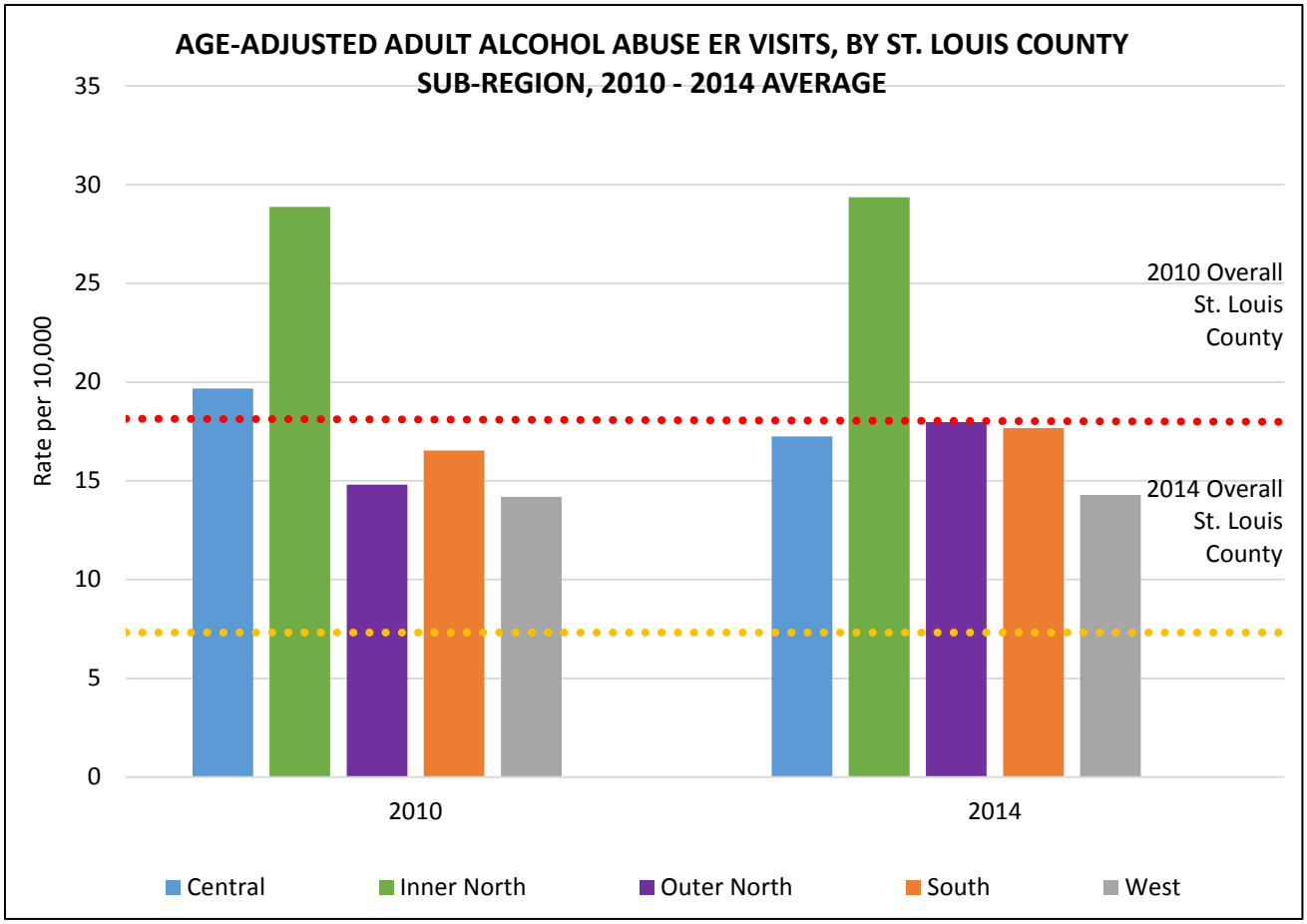


MODHSS, MICA

- For both substance use disorder and alcohol related mental health ER visits, the rates in St. Louis City were higher than that of St. Louis County and Missouri, on average, for 2010 to 2014.
- The rates of substance use disorder and alcohol related mental health ER visits in St. Louis County were lower than that in Missouri.

Emergency Room Visits – Alcohol Use Disorder

Alcohol use disorder includes alcohol dependence syndrome, nondependent alcohol abuse, alcoholic psychoses, toxic effects of alcohol, and excessive blood level of alcohol. Also included are diseases of the nervous system, digestive system, and circulatory system caused by alcohol. Excessive alcohol use – heavy or binge drinking – is the 3rd leading lifestyle-related cause of death for the nation. In the single year 2003, there were over 2 million hospitalizations and over 4 million emergency room visits for alcohol-related conditions. This indicator shows the average annual age-adjusted emergency room visit rate due to acute or chronic alcohol abuse per 10,000 population age 18 years and older.



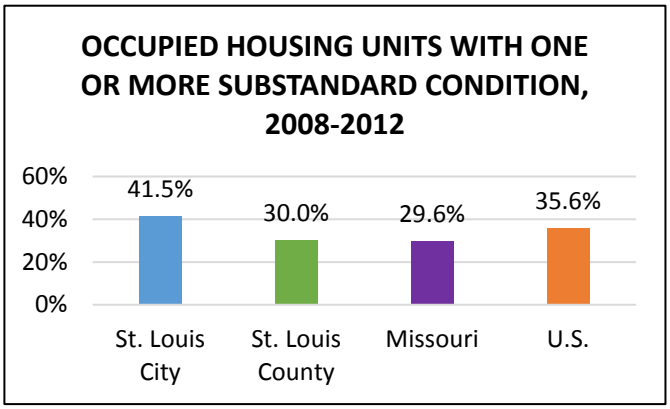
MODHSS, MICA

- The inner north sub-region experienced significantly higher rates of acute or chronic alcohol abuse among adults age 18 years and older (28.9 and 29.4 per 10,000) than the St. Louis County rate between 2010 (18.2 per 10,000) and 2014 (7.3 per 10,000).
- The west sub-region had statistically significant lower rates of acute or chronic alcohol abuse (14.2 and 14.3 per 10,000) than the St. Louis County rate between 2010 and 2014.

ENVIRONMENTAL HEALTH

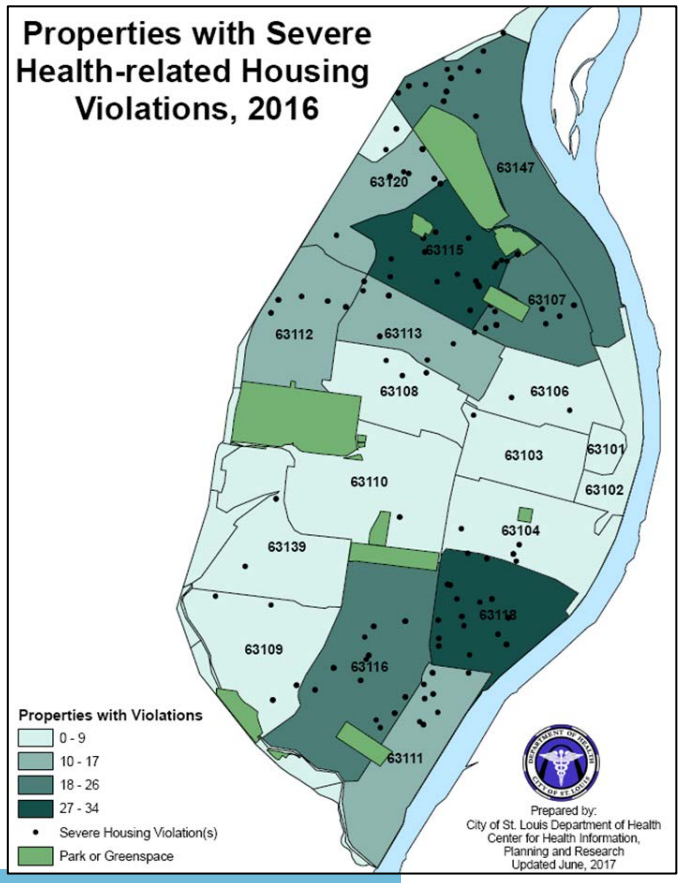
Housing

Having a safe and affordable place to live is important to a person's health. Adequate housing protects residents from environmental problems like mold, lead, allergens, exposure to infectious or contagious disease, and the inability to store and prepare healthy food. The four problems that define severe housing are: plumbing that does not have hot and cold water, a flushing toilet, and a bathtub or shower; kitchen facilities that do not have a sink with a faucet, a stove or range oven, and a refrigerator; more than 1.5 persons per room (For example, 4 people living in an apartment with only two total rooms); and housing costs (including utilities) that are higher than 50% of the household's monthly income.



- St. Louis City had the highest percent of homes with one or more substandard housing conditions (41.5%) compared to St. Louis County (30.0%), Missouri (29.6%), and the US (35.6%) for 2008-2012.

U.S. Census Bureau, U.S. Department of Housing & Urban Development



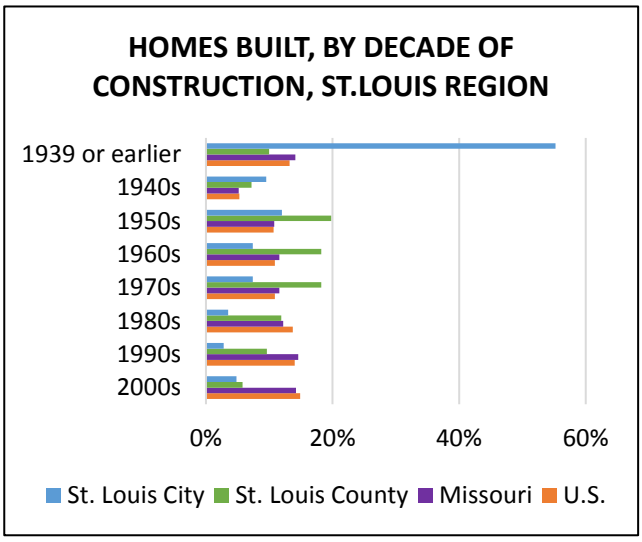
- Among properties with severe health-related housing violations in St. Louis City, zip codes in the lowest quartile (range of 0 to 9) were 63101, 63102, 63103, 63104, 63106, 63108, 63109, 63110, 63139.

- Properties in two zip codes (63118, 63115) ranked in the highest quartile of violations with a range of 27 to 34 for 2016. Both zip codes had high percentages of families living in poverty.

Community Sanitation Program, City of St. Louis Department of Health, 2016

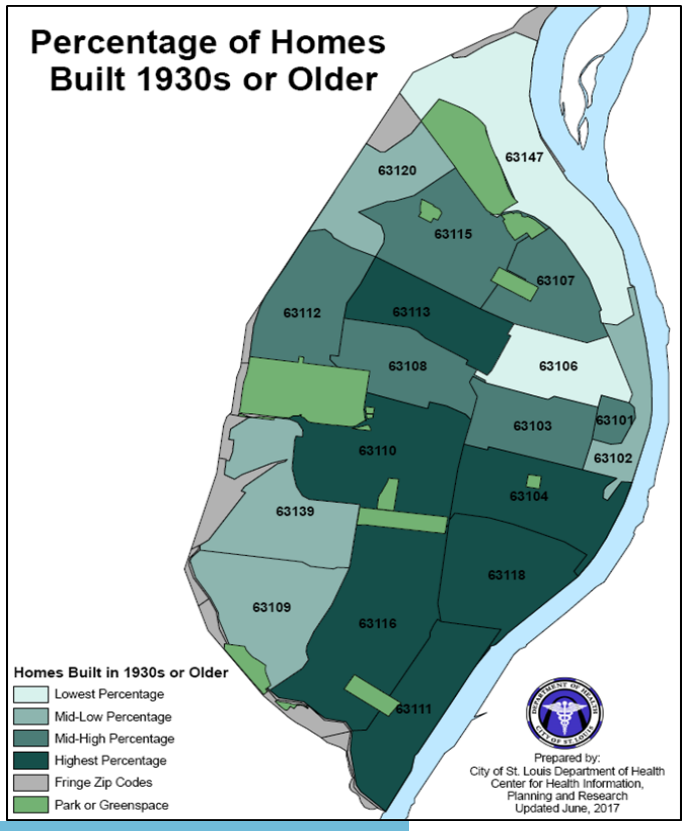
Housing

For cities with an aging housing stock, preventing homes from falling into disrepair is a top priority. Older homes can be more likely to contain severe problems and replacing infrastructure surrounding older homes can be costly. Lead paint was banned for use in housing in 1978. All homes built before 1978 likely contain lead paint. Graphics represent the year which individual structures were originally constructed. The percentage of home built by decade measures occupied and vacant units and does not refer to any remodeling, additions or conversions.



- Of all homes built in each jurisdiction, 55.2% of St. Louis City homes were built in 1939 or earlier, followed by Missouri (14.1%), the US (13.2%), and St. Louis County (10.0%).
- The highest percent of homes built in St. Louis County occurred in the1950s (19.8%), followed by the 1960s (18.2%), and 1970s (16.9%).
- The percent of homes built in the 2000s in the US (14.9%) and Missouri (14.2%) is double the percent built in St. Louis City (4.8%) and County (5.8%) for the same time period.

ACS 5-YR Est., 2011-2015

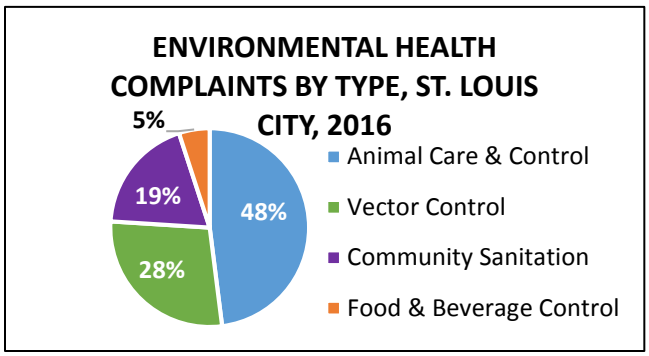


- The location of homes built in the 1930s were in south St. Louis zip codes (63111, 63116, 63118, 63104, 63110).

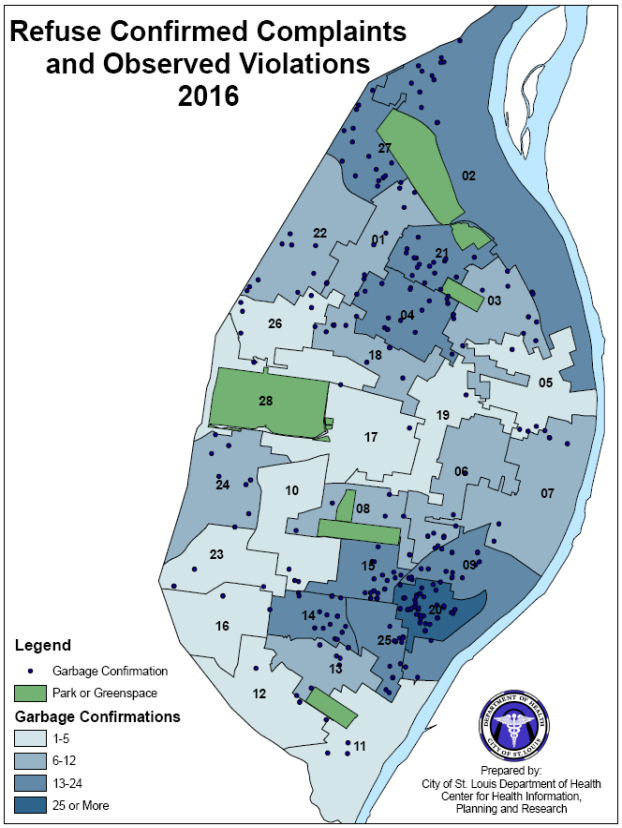
ACS 5-YR Est., 2011-2015

Environmental Factors

The physical condition of the community affects how comfortable citizens are to utilize services and become active. Refuse accumulation, vacant properties and other exterior neighborhood conditions affect walkability, community safety, and crime. Vacant parcels can also be an attractant for crime, pests, and even stray animals.

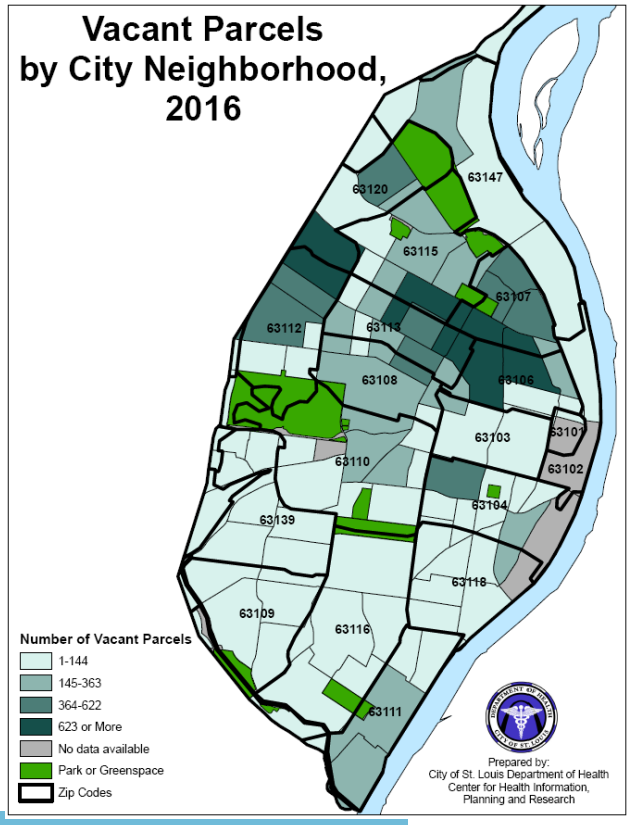


- Almost 50% of environmental health complaints received in 2016 were for Animal Care and Control (ACC) in St. Louis City [with a third due to stray animals]. The top three complaints came from words in the north.



Community Sanitation Program, City of St. Louis Department of Health (left and above)

- St. Louis City Ward 20 had the most confirmed refuse complaints in 2016 with 25 or more.

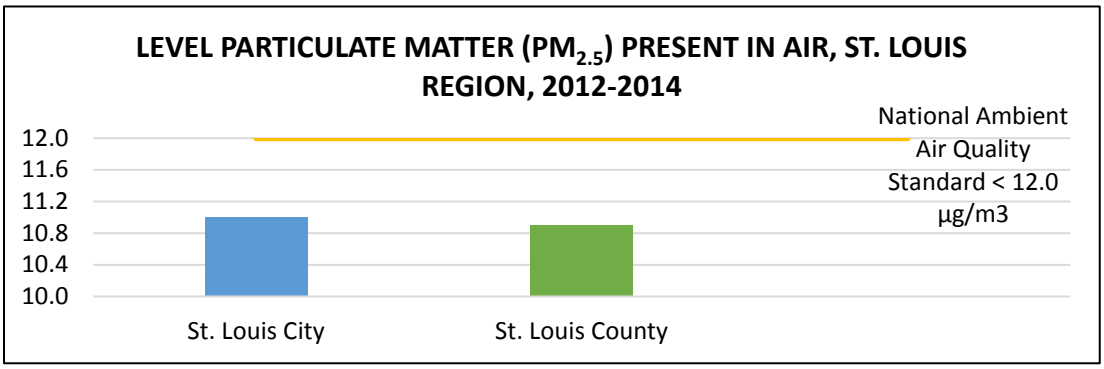


- More vacant parcels were observed in north St. Louis City, spanning zip codes 63120, 63112, 63113, 63115, 63107, and 63106. A smaller number of vacant parcels were observed in southern and eastern St. Louis City during 2016.

Assessor's Office, City of St. Louis

Air Quality

Primary and secondary pollutants are harmful to people and the environment. Particulate matter, also known as soot, is a mix of tiny liquid and solid particles in the air. $PM_{2.5}$ can be dirt, dust, metals, acids, or organic chemicals in the air. High levels of $PM_{2.5}$ can cause short-term and long-term respiratory problems. Sensitive groups like children, older adults, and those with existing breathing problems are more likely to have short-and long-term breathing problems. Nationwide, there has been a 37% decrease in the national $PM_{2.5}$ average from 2000 to 2015.



Environmental Protection Agency, air monitoring stations operated by the Missouri Department of Natural Resources.

- The calculated concentration of $PM_{2.5}$ for St. Louis County from 2012 to 2014 was 10.9 μ g/m^3 and the St. Louis City level was (11.0 μ g/m^3).
- Both the City and County values were less than the National Ambient Air Quality Standard, Annual Average $\leq$12.0 μ g/m^3.

OUTDOOR AIR QUALITY INDEX BY NUMBER OF DAYS, ST. LOUIS REGION, 2016

Jurisdiction	Total AQI Days	Good Days	Moderate Days	Unhealthy Days (Sensitive Groups)	Unhealthy Days	Very Unhealthy Days
St. Louis City	366	236	127	2	1	0
St. Louis County	366	270	89	7	0	0
St. Louis MO-IL	366	180	167	17	2	0
Standards value range	-	0 – 50	51 – 100	101 – 150	151 – 200	$\geq$ 201

State of the Air Report, American Lung Association, 2012-2014

- Compared to other communities that collect and report $PM_{2.5}$ levels, St. Louis County had a similar score to 25 to 50% of the communities, while 25% of the communities reported a lower score or lower levels of $PM_{2.5}$ from 2012-2014.
- The calculated concentration of $PM_{2.5}$ for St. Louis County from 2012 to 2014 was 10.9 μ g/m^3 and the St. Louis City level was (11.0 μ g/m^3).
- Both the City and County values were less than the National Ambient Air Quality Standard, Annual Average $\leq$12.0 μ g/m^3.

Air Quality

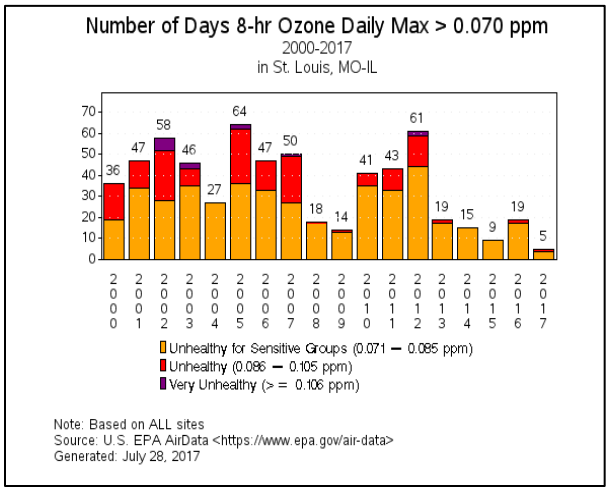
Ozone is a gas found in the Earth's upper atmosphere and the ground level. Depending on where it is found, it can be protective or harmful. Breathing ozone can trigger respiratory problems, especially for sensitive groups. Ozone also affects sensitive vegetation and ecosystems. Unhealthy ozone levels are generally observed between April and September. Between 1980 and 2015, there has been a 32% decrease in the national ozone (O_3) average.

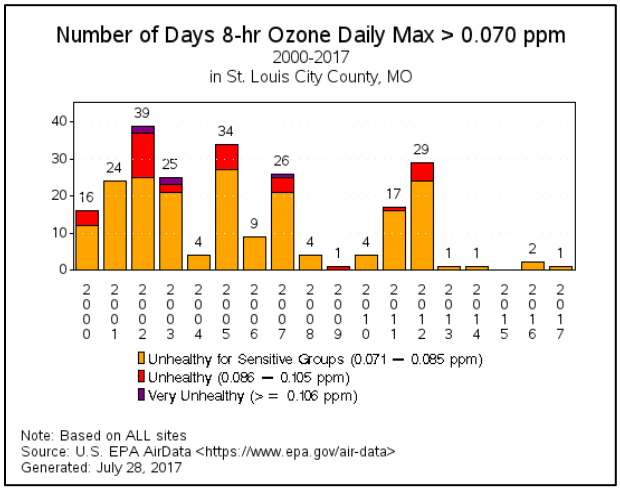
OUTDOOR AIR QUALITY BY POLLUTANTS, 2016

Jurisdiction	O_3 1-hr (2^{nd} max) ppm	O_3 8-hr (4^{th} max) ppm	$PM_{2.5}$ (98^{th} %tile/24-hour) µg/m^3	$PM_{2.5}$ (Wtd. Mean/annual) µg/m^3
St. Louis City	0.09	0.068	21	9.6
St. Louis County	0.09	0.073	19	8.7
St. Louis MO-IL	0.1	0.076	25	10
Standard values	0.12	0.07	35	12

Environmental Protection Agency through air monitoring stations operated by the Missouri Department of Natural Resources (above and below)

- St. Louis County and the metro area experienced an annual exceedance of ozone levels for 2016.
- Particulate matter for all three geographic areas did not exceed the standard values for 2016.

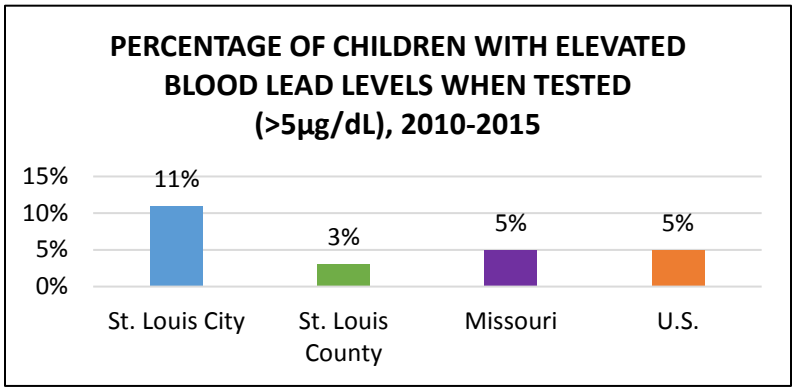




- The number of ozone exceedance days has decreased for St. Louis City and County between 2000 and 2017.
- There have been no very unhealthy or unhealthy days since 2013.

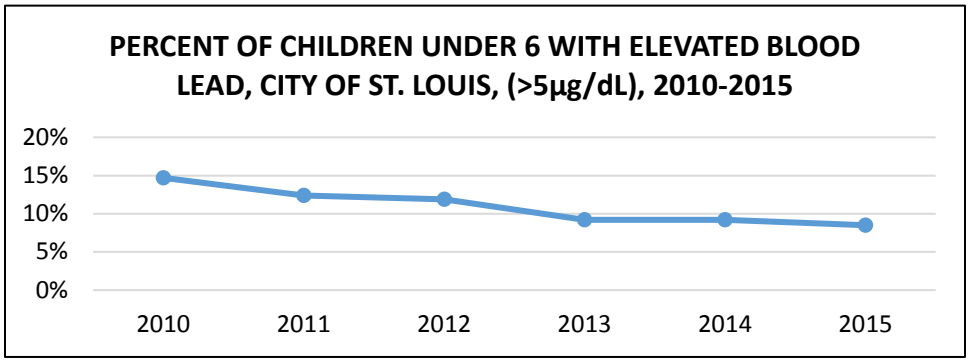
Childhood Lead Poisoning

Although there are several exposure sources, lead-based paint is the most widespread and dangerous high-dose source of lead exposure for young children. Lead is not only found in paint but gasoline, toys and water. Exposure can affect nearly every body system and often occurs with no obvious symptoms. Lead poisoning can cause long-term development and behavior problems. Any exposure to lead is dangerous for young children, especially those under 6 years old. Data includes only children who were tested.

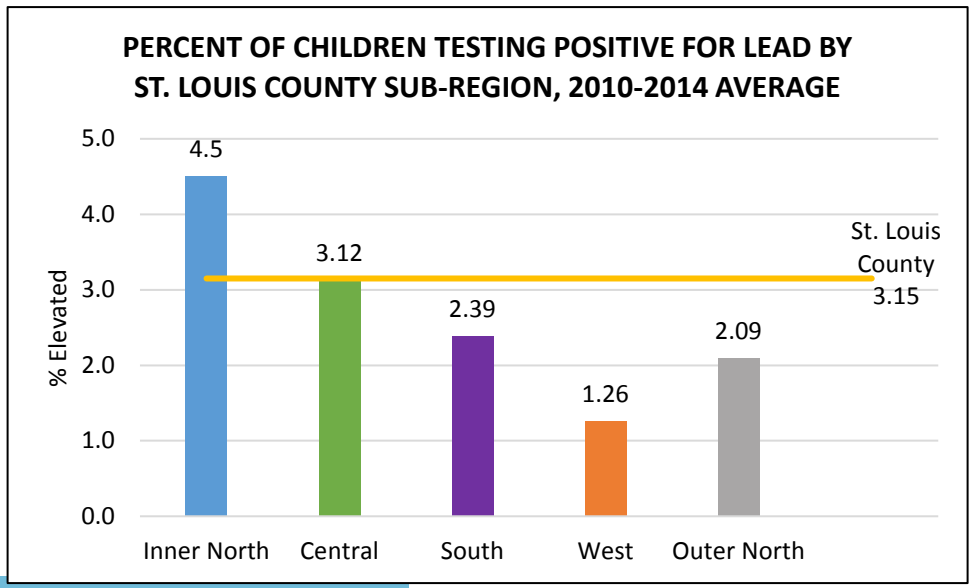


- When tested, the percentage of children with elevated blood lead levels was 11% in St. Louis City, 3% in St. Louis County and 5% in Missouri and the United States. Both City of St. Louis and St. Louis County show a higher number or percentage of elevated lead results in correlation with areas with higher poverty levels.*

MODHSS, MICA (all charts)



- The percent of children testing positive for elevated blood lead in St. Louis City decreased by 6.2% between 2010 and 2015 (14.7%, 8.5% respectively).

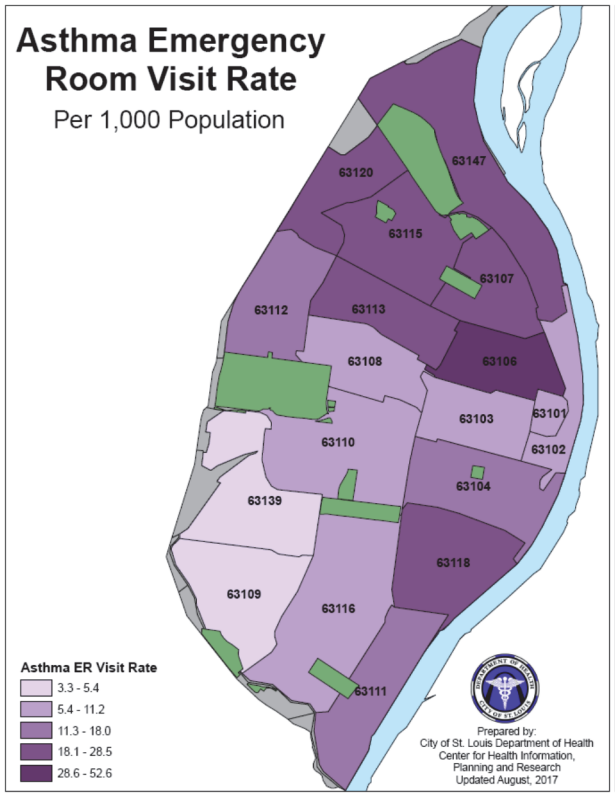


- The inner north sub-region had the highest percent of children testing positive for lead (4.5%) in St. Louis County, on average, between 2010 and 2014. The proportion was three and a half times higher than the lowest sub-region, west (1.26%).

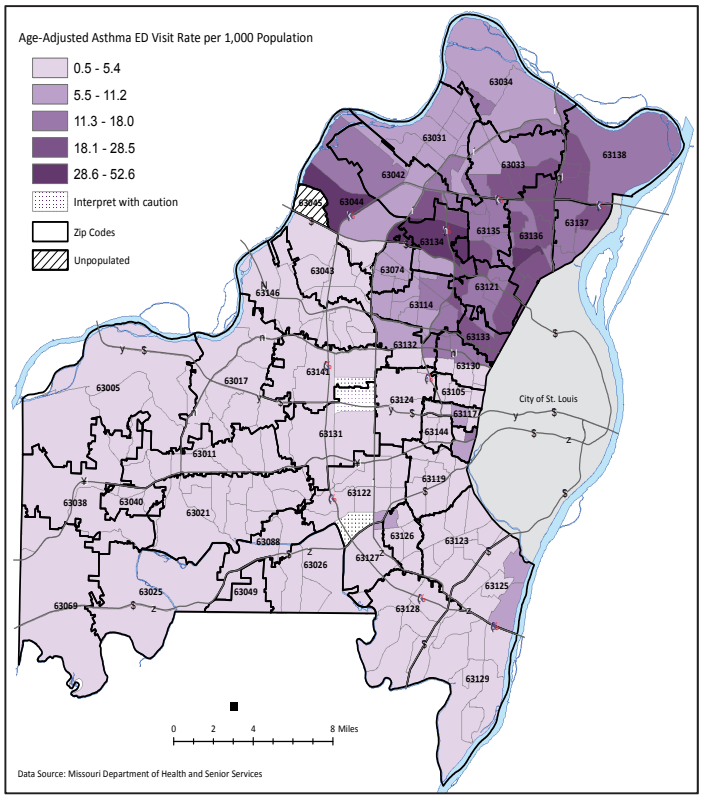
Asthma

Asthma is a breathing or lung disease where a person has trouble breathing and symptoms like wheezing, chest tightness, breathlessness, and coughing. The cause of asthma is not known. Many triggers are from the environment, including secondhand smoke, dust mites, pets, mold, and household pests. While asthma cannot be cured, it can be treated or controlled with medicine and by removing environmental hazards. Subpopulations within our communities are negatively affected and experience higher asthma emergency room (ER) visits compared to other subpopulations. Specific examples include race and poverty.

ST. LOUIS CITY, 2010-2014



ST. LOUIS COUNTY, 2010-2014

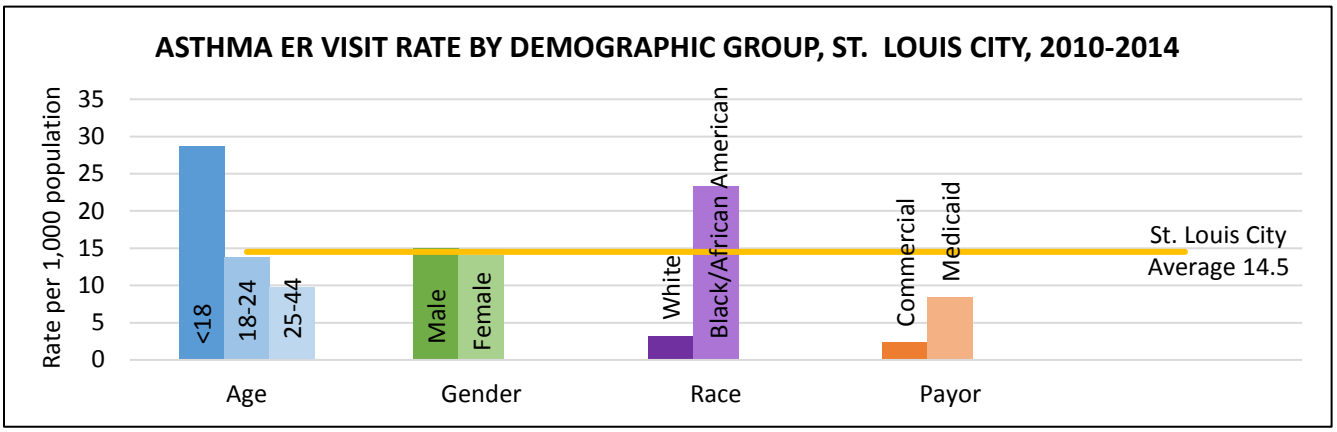


MODHSS, MICA

- St. Louis City zip codes 63106, 63107, and 63120 had the highest ER visit rates, ranging from 23.7 per 1,000 to 30.5 (*see left*).
- The highest rates of ER visits were observed in the northern portions of both St. Louis City and County between 2010 and 2014, on average.
- Census tracts within the St. Louis County zip codes of 63044 and 63134 had the highest ER visit rates, ranging from 28.6 per 1,000 to 52.6 (*see right*).

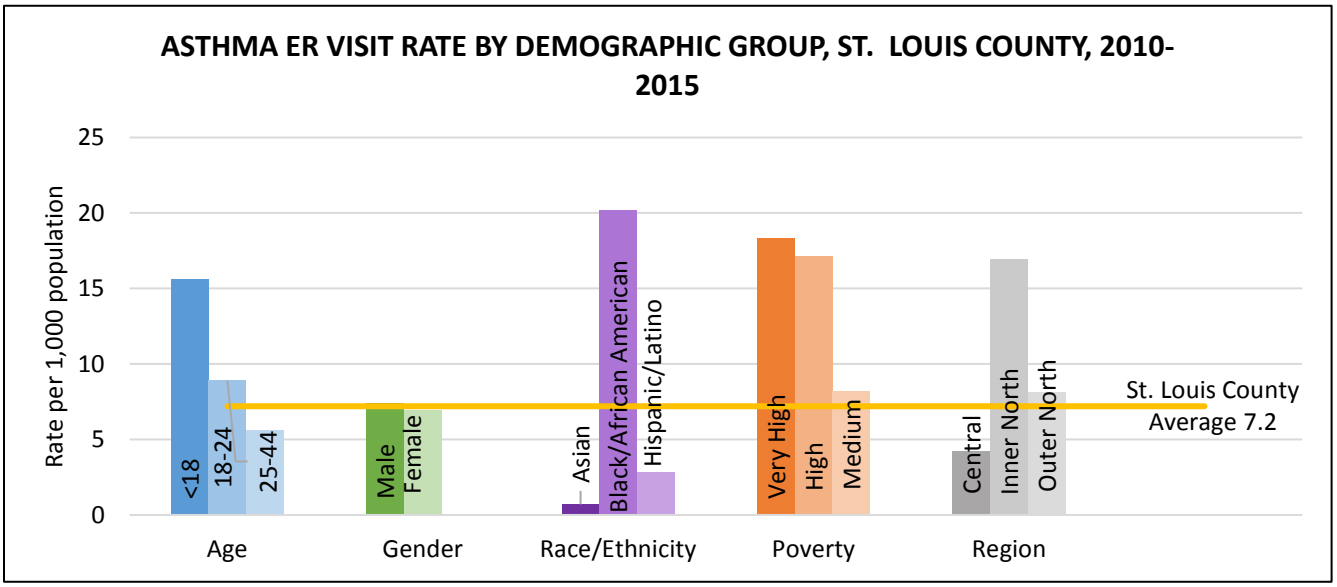
Emergency Room Visits – Asthma

Asthma is a common lifelong chronic illness and often result in visits to the emergency department (ED). Some visits to the ED cannot be avoided, for example, if trouble breathing does not improve after medication. But other ED visits can be avoided with better access to medication, better access to primary care, and access and quality of health insurance. The rate of asthma-related ED visits is a measure of every single visit for asthma-related symptoms. Key groups with higher asthma ER visit rates in St. Louis County and City included those under age 18, black/African Americans. Individuals with very high, high, and medium poverty were highest in St. Louis County, as well as in the inner north sub-region. Individuals on Medicaid had higher rates than commercial payors in St. Louis City.



MODHSS, MICA (both charts)

- St. Louis City demographic subpopulations showed higher asthma ER visit rates than similar subpopulations in St. Louis County.



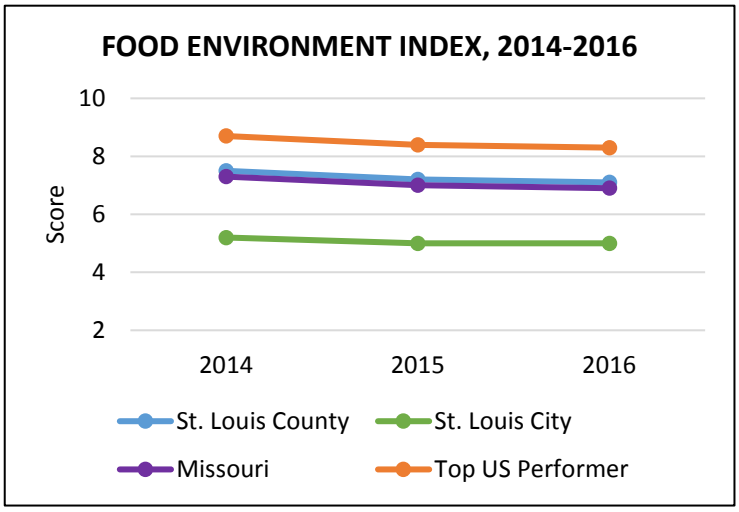
- For St. Louis County children under age 5, asthma ER visits decreased significantly between 2010 (257.3 per 1,000) and 2014 (219.9). The average asthma ER visit rate was 236 visits per 10,000 population which was nearly two and a half times higher than the HP 2020 target rate (95.7).

CHRONIC DISEASE AND INJURY PREVENTION

Healthy Eating

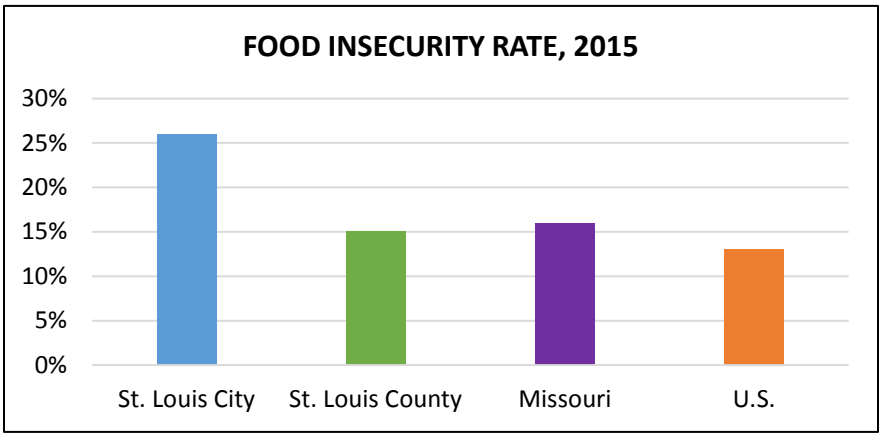
Measuring a community's built environment can determine where gaps exist and where improvements can be made to increasing healthy food access. Residents living in low-income, rural, and minority neighborhoods often live far away from healthy food vendors like supermarkets and grocery stores. The lack of a constant, healthy food supply creates food insecurity which limits our community's ability to maintain nutritious diets that support normal weight and optimal health.

The Food Environment Index (FEI) is a ranking of two indicators (low-income and low grocery access; food insecurity) and ranges from 0 (worst) to 10 (best) and the top US performers are in the 90th percentile which means that only 10% are better.



CHRR, 2016

- The FEI for St. Louis County has decreased every year from 2014 (7.5) to 2016 (7.1). The ranking was slightly higher than the Missouri state value for all years but lower when compared to the top US performers.
- The FEI for St. Louis City was 5.0 for 2015 and 2016, which was a slight decrease from 2014 (5.2). The ranking was lower than St. Louis County, Missouri, and Top US Performer scores for all years.

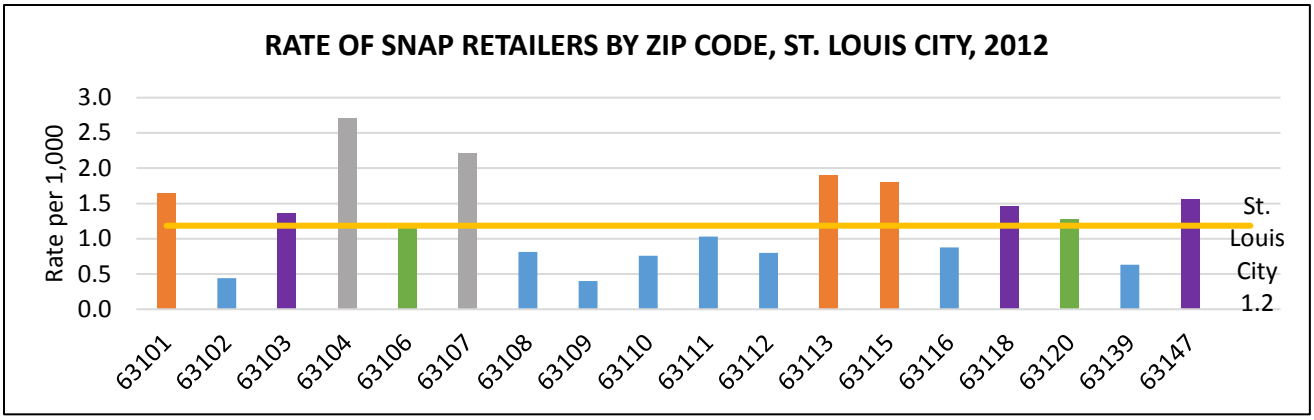


USDA Food Environment Atlas, Feeding America, Map the Meal Gap, 2010 & 2014

- Food insecurity refers to a lack of access – at times – to enough nutritional food for an active, healthy life for all members of a household. Food insecurity may reflect a household's need to choose between paying for basic needs – housing costs or bills – and purchasing healthy foods.
- St. Louis City had a food insecurity rate (26%) that was double the United States (13%).
- St. Louis County's rate of food insecurity (15%) was similar to Missouri's (16%) and less than that of St. Louis City.

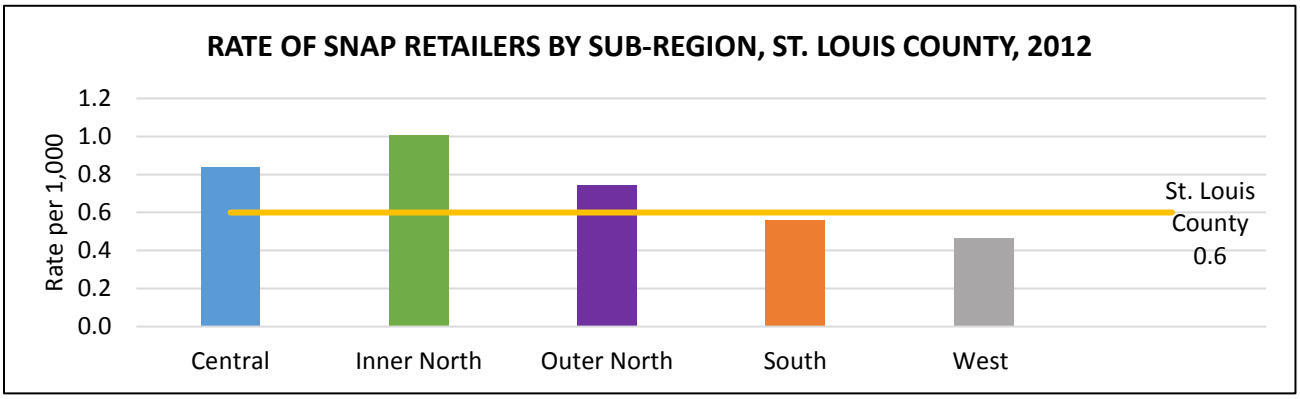
Healthy Eating

SNAP (Supplemental Nutrition Assistance Program) is a federal nutrition assistance program that provides millions of eligible low-income individuals and families with electronic benefit transfers (EBTs) that can be used to purchase food. SNAP is the largest program in the domestic hunger safety net. Children, seniors, and those with disabilities comprise almost two-thirds of all SNAP participants. Retailers who accept SNAP serve an important role in combatting hunger and food insecurity among low-income individuals and families.



USDA FNS SNAP Retailer Locator, 2015 ACS 5-YR Est. (both charts)

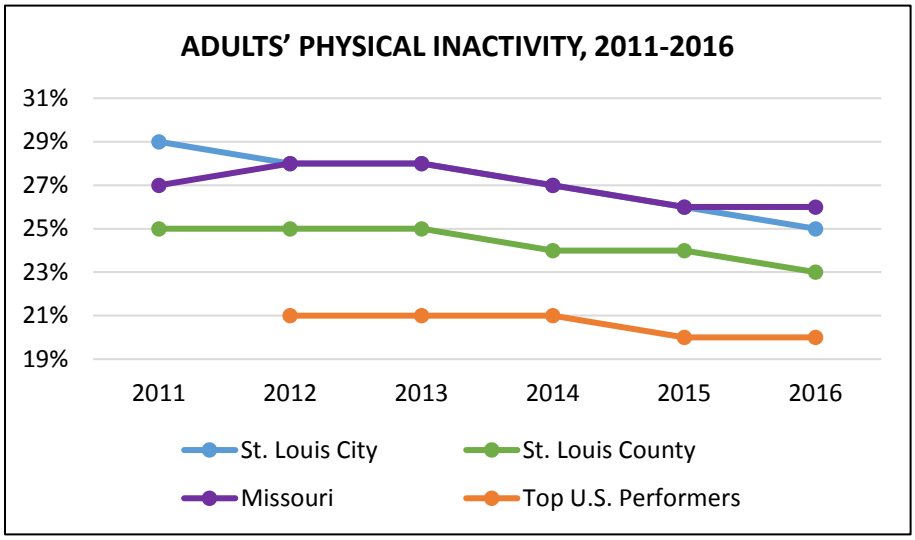
- The average rate of SNAP retailers in St. Louis City was 1.2 stores per zip code.
- In the very high poverty zip codes (63106, 63107, 63118, 63113), the rate of SNAP retailers was at or exceeded the St. Louis City rate.
- Zip codes with low poverty rates (63139, 63109) had half the rate of SNAP retailers or less than the St. Louis City rate in 2012.



- The average rate of SNAP retailers in St. Louis County – 0.6 stores per zip code – is half the rate of St. Louis City.
- The inner north sub-region has the highest rate of poverty in St. Louis County and the highest rate of SNAP retailers (1.0) by zip code.
- The south and west sub-regions have the lowest rates of poverty and the rate of SNAP retailers is at or less than the St. Louis County rate.

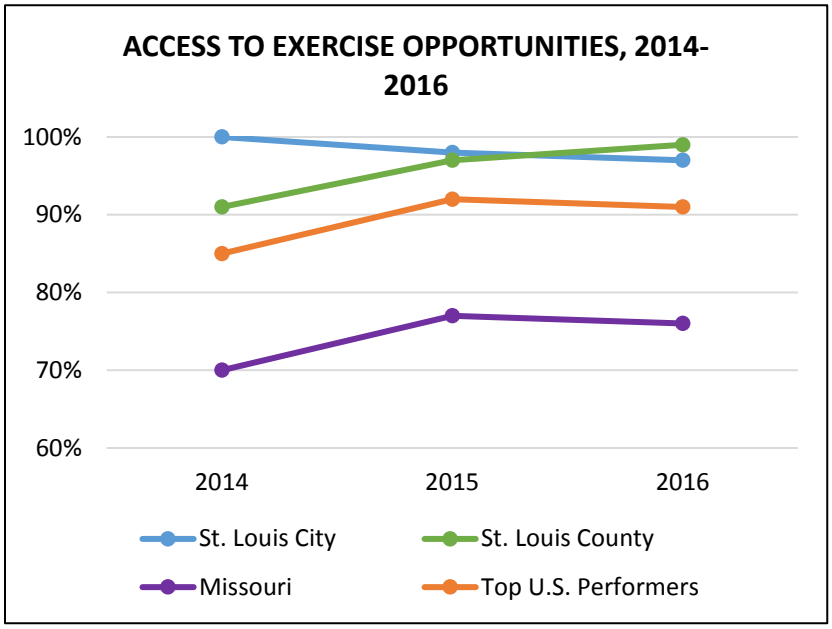
Active Living

People engaging in an active lifestyle have a reduced risk of many serious health conditions including obesity, heart disease, diabetes, and high blood pressure. In addition, physical activity improves mood and promotes healthy sleep patterns. The American College of Sports Medicine (ACSM) recommends that active adults perform physical activity three to five times each week for 20 to 60 minutes at a time to improve cardiovascular fitness and body composition. People are more likely to engage in physical activity if their community has facilities which support recreational activities, sports, and fitness.



- Physical inactivity is the percentage of adults age 20 and over reporting no leisure-time physical activity. The data are from self-reported measures.
- St. Louis City had a percentage of physically inactive adults similar to Missouri for all time periods, ranging between 29% (2011) and 25% (2016).

CHRR, 2017 (both charts)

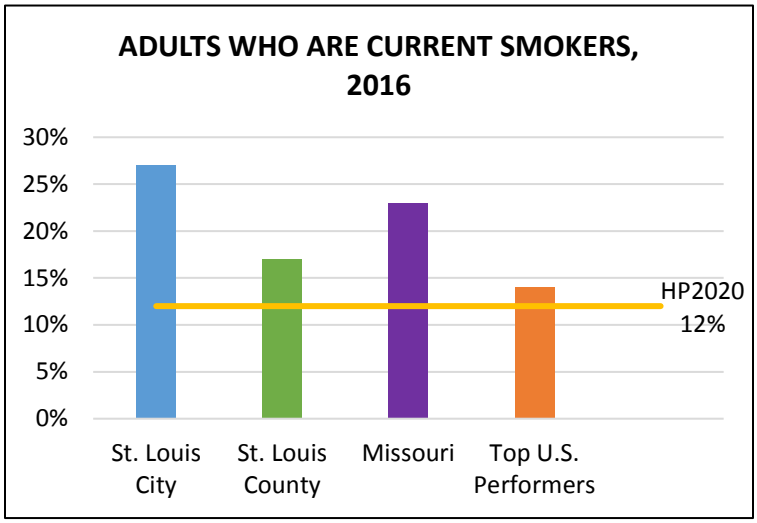


- The percentage of physically inactive adults in St. Louis County was somewhat greater than Missouri and St. Louis City, but less than top US performers, ranging between 25% (2011) and 23% (2016).
- Access to exercise opportunities measures the percentage of individuals in a county who live reasonably close to a location for physical activity. "Reasonable" is defined differently for urban and rural areas. Locations for physical activity are defined as parks or recreational facilities.

- St. Louis City and County residents have greater access to exercise opportunities than both Missouri and Top US Performers, with between 90% and 100% for all time periods.

Tobacco

Tobacco use contributes to many avoidable illnesses and premature death. Areas with a high smoking prevalence have greater exposure to secondhand smoke for nonsmokers, which can cause or worsen a wide range of negative health effects such as cancer, respiratory infections, and asthma. Missouri has the lowest cigarette tax of any state ($0.17), far below the national average of ($1.46). Studies show that increased tobacco taxes can ultimately reduce smoking and improve health. Low income areas and areas with minority residents often have a higher concentration of tobacco stores.

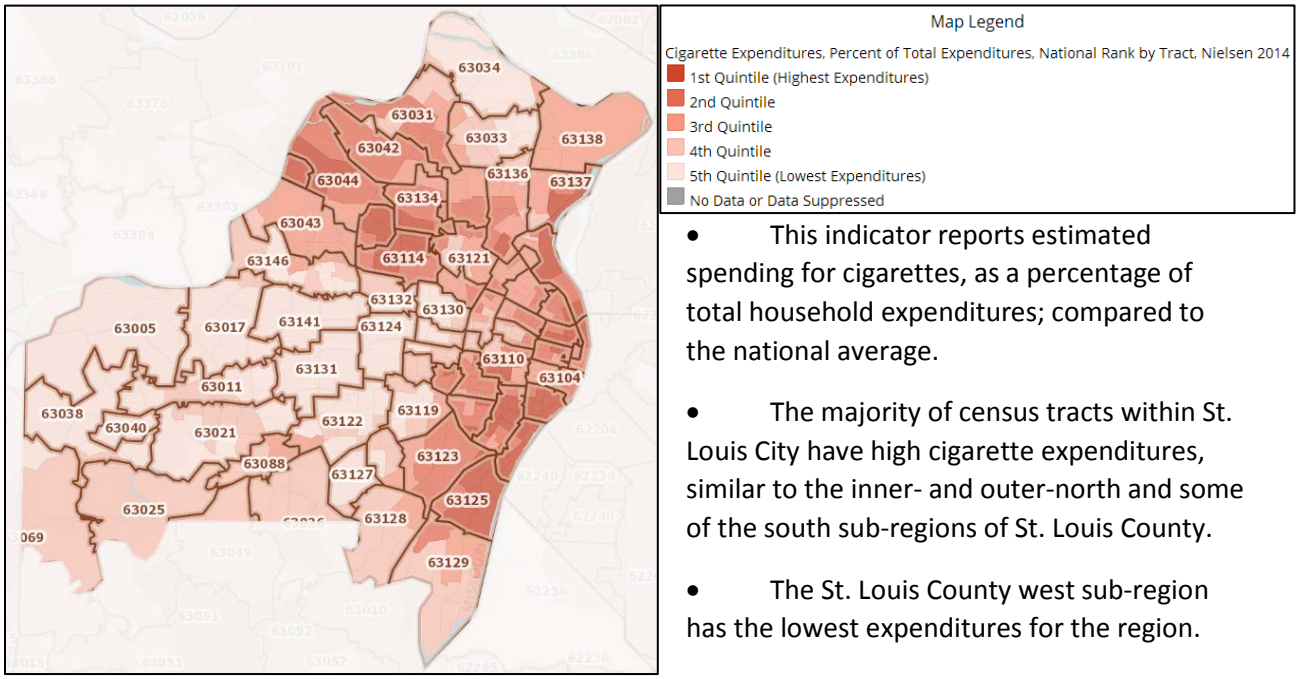


This indicator shows the percentage of adults who currently smoke cigarettes.

- In 2016, the percent of adults who reported current smoking in St. Louis County was 17.0%, which is lower than the Missouri state (23.0%) but lower than the US value (14.0%). All three locations had a higher percent of adults who currently reported smoking than the Healthy People 2020 target of 12%. At a rate of 27%, St. Louis City had the highest rate of adults who report current smoking in the region.

CHRR, 2017

CIGARETTE EXPENDITURES BY CENSUS TRACT, ST. LOUIS REGION, COMPARED TO NATIONAL AVERAGE



- This indicator reports estimated spending for cigarettes, as a percentage of total household expenditures; compared to the national average.

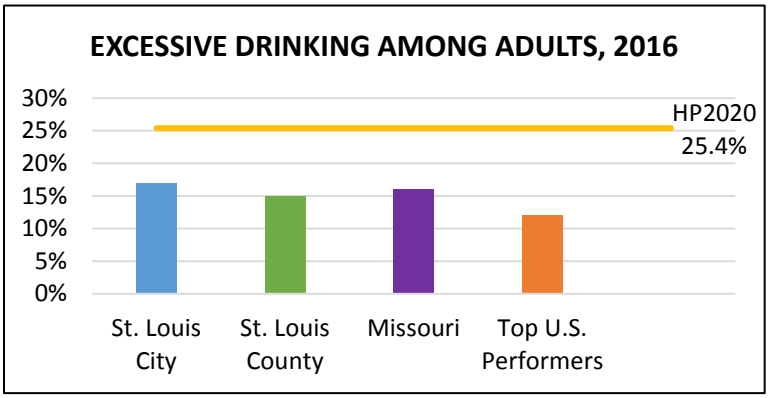
- The majority of census tracts within St. Louis City have high cigarette expenditures, similar to the inner- and outer-north and some of the south sub-regions of St. Louis County.

- The St. Louis County west sub-region has the lowest expenditures for the region.

Community Commons, Nielsen SiteReports, 2014

Alcohol

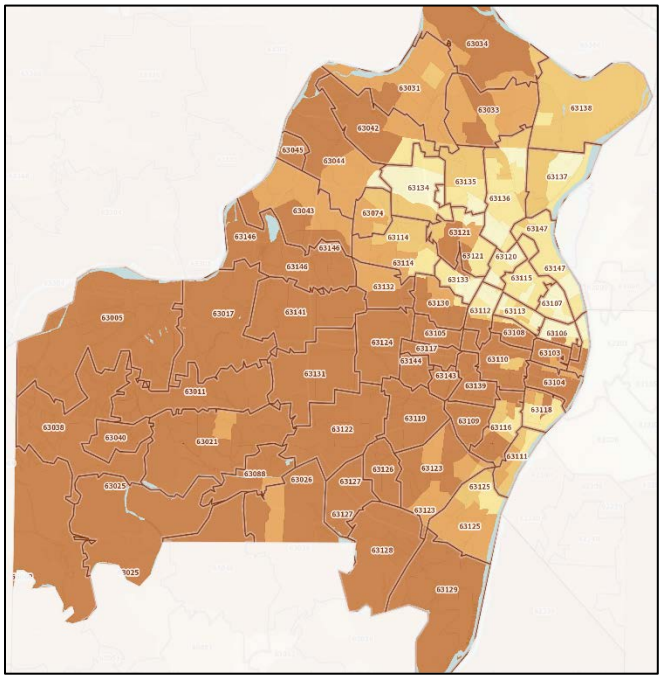
Excessive drinking is a risk factor for negative health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. It is the 3rd leading cause of lifestyle-related death in the United States. Alcohol expenditures are proxy causes of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs.

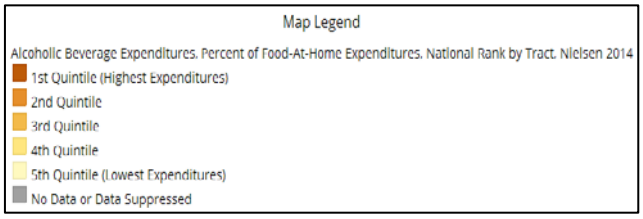


- This indicator shows the percentage of adults that report binge drinking in the past 30 days.
- St. Louis City and County have both reached the Healthy People 2020 goal for less than 25.4% of adults that report excessive drinking.

CHRR, 2017

ALCOHOLIC BEVERAGE EXPENDITURES BY CENSUS TRACT, ST. LOUIS REGION, COMPARED TO NATIONAL AVERAGE, 2014





- This indicator reports estimated expenditures for alcohol, as a percentage of food-at-home expenditures; compared to the national average.
- The highest alcoholic beverage expenditures are in the west and south sub-regions of St. Louis County.
- The lowest expenditures are in north St. Louis City and the St. Louis County inner north sub-region.

Community Commons, Nielsen SiteReports, 2014

Leading Causes of Death

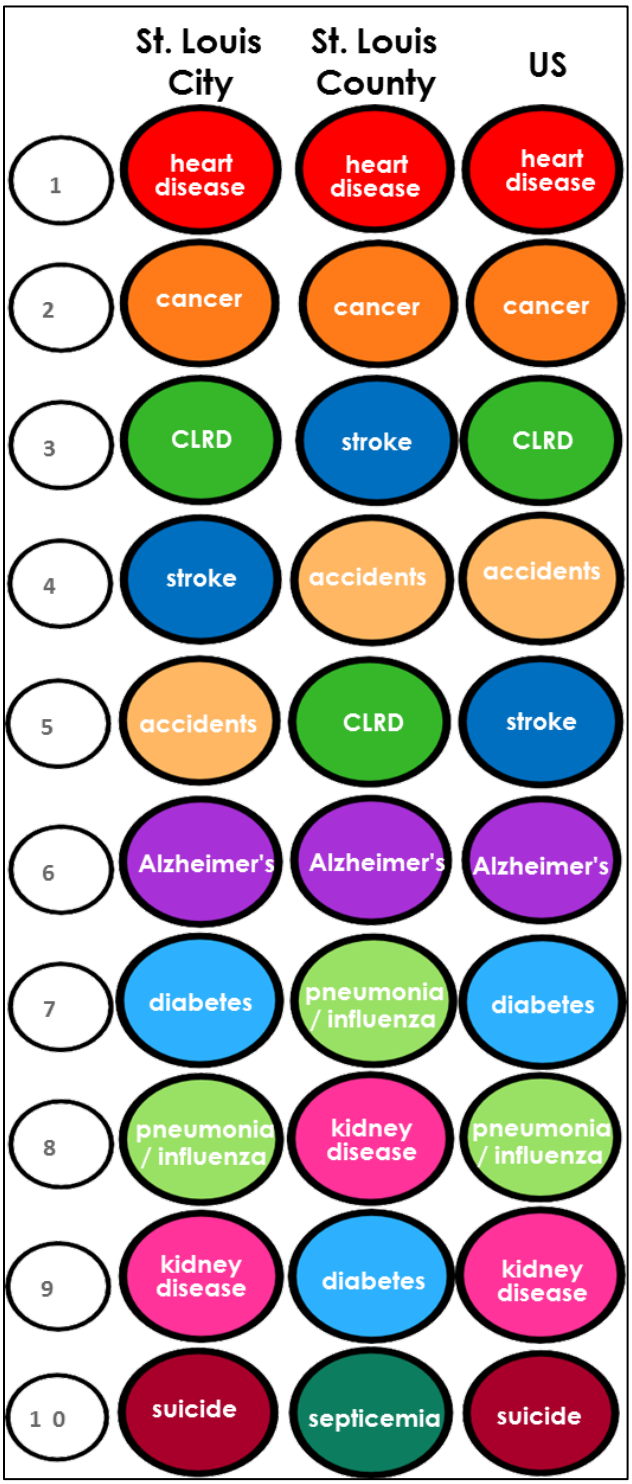
Measuring how many people die each year and why they died is one of the most important means – along with figuring out how diseases and injuries are affecting people – for assessing the effectiveness of a country's health system. Globally and nationally, 70% of deaths are caused by non-communicable diseases across low- and high income countries. Cause of death is based on medical information – including injury diagnoses and external causes of injury – that is entered on death certificates filed in the United States. Leading causes of death (LCOD) are ranked 1 to 10 based on number of deaths.

- The top two LCOD for St. Louis City, County, and the United States (2010 to 2014 average) were heart disease and cancer.
- The third LCOD in St. Louis City was similar to the U.S. - CLRD (chronic lower respiratory disease), which includes asthma and COPD (chronic obstructed pulmonary disease) - but stroke was the third LCOD for St. Louis County.
- Unintentional injury (UI) was the fourth LCOD for St. Louis County and the U.S., and the fifth LCOD for St. Louis City.
- Alzheimer's Disease was the sixth LCOD across all geographies.
- Septicemia was a top 10 LCOD for St. Louis County only*.

MODHSS, Bureau of Vital Statistics

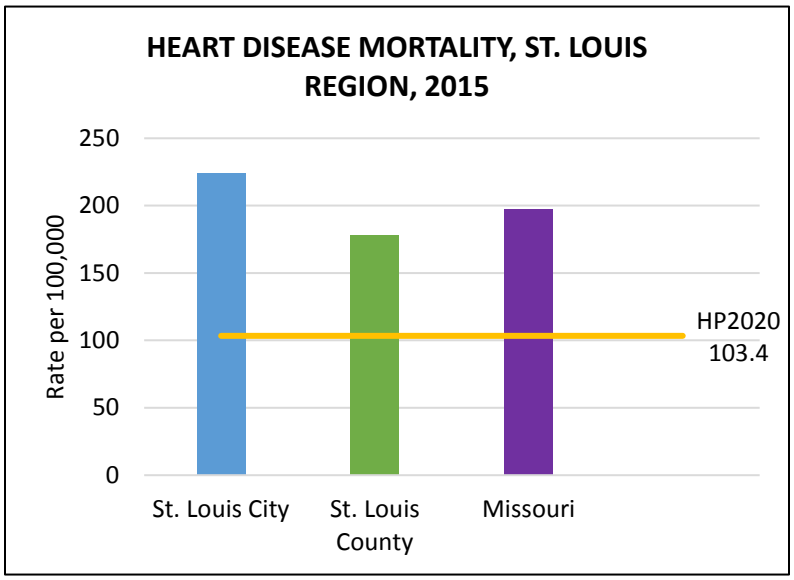
*See the Saint Louis County Department of Public Health Leading Causes of Death Profile for more information.

LEADING CAUSES OF DEATH, ST. LOUIS CITY AND COUNTY COMPARED TO U.S., 2010-2014 AVERAGE



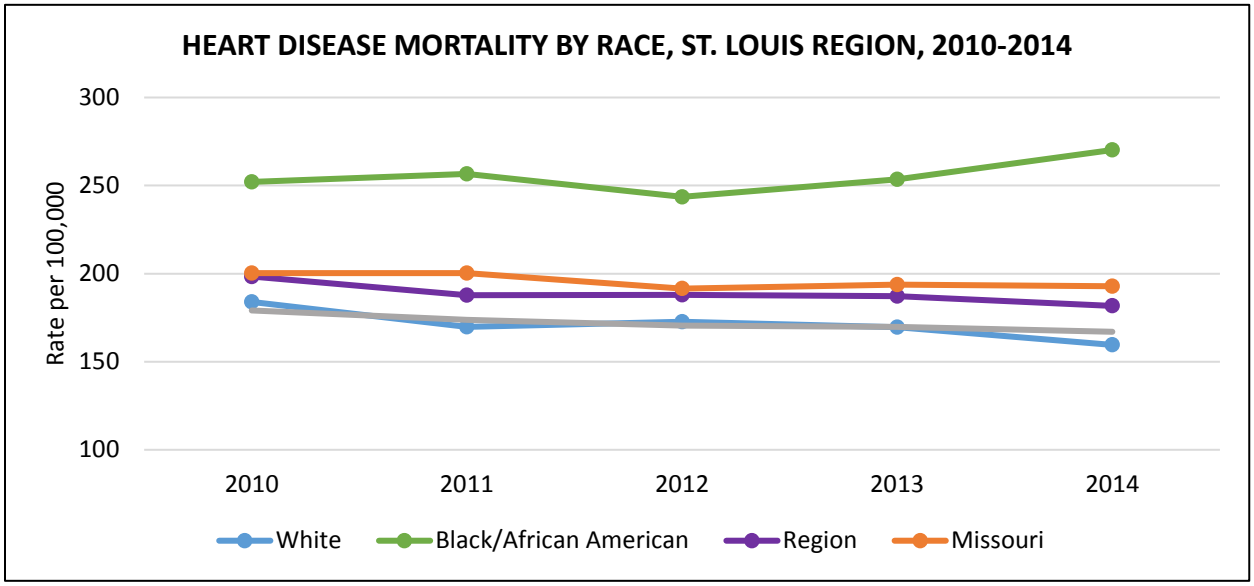
Heart Disease Mortality

Heart disease is the leading cause of death in the United States, accounting for 25.4% of total deaths. The most common type in the United States is coronary artery disease, which can cause heart attack, angina, heart failure, and arrhythmias. Some modifiable risk factors for heart disease include tobacco use, obesity, sedentary lifestyle, and high levels of low-density lipoprotein in blood serum. Heart disease is the number one killer of women in the United States.



- The rate of heart disease mortality in St. Louis City (224.3 per 100,000) was highest when compared to St. Louis County* (178.0) and Missouri (197.5) for 2015.
- All three geographic comparisons are higher than the Healthy People 2020 goal of 103.4 deaths.

*See the full Saint Louis County Department of Public Health Heart Disease Profile for more information.

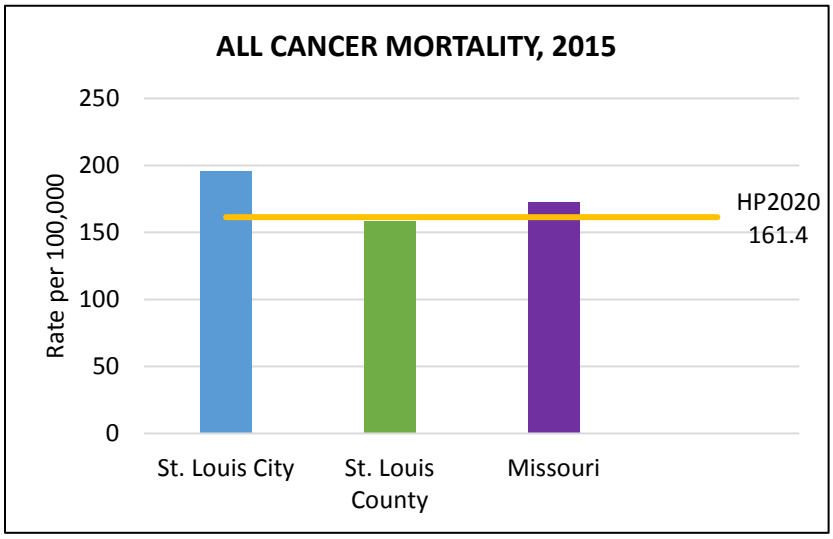


MODHSS, Bureau of Vital Statistics (both charts)

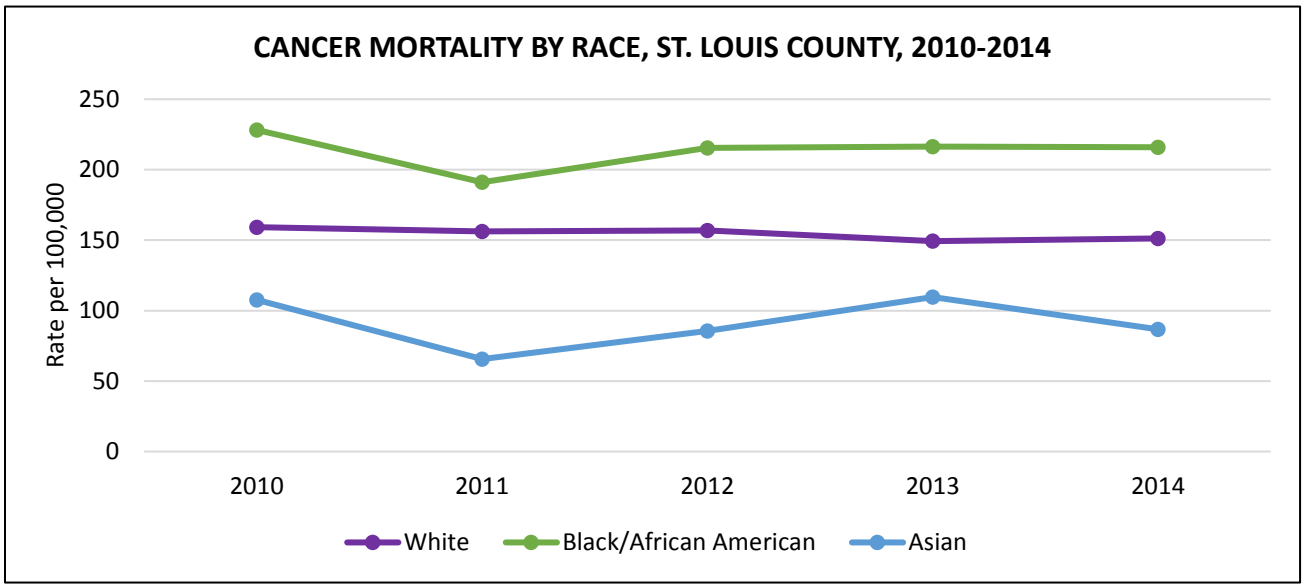
- Over the 2010 to 2014 period, whites in the St. Louis Region had a 13% decrease in heart disease mortality, compared to a 7.1% increase in black/African Americans in the St. Louis Region.
- Over the 2010 to 2014 time period, Missouri experienced a 3.7% decrease in heart disease mortality.

Cancer Mortality

The National Cancer Institute (NCI) defines cancer as a term used to describe diseases in which abnormal cells divide without control and are able to invade other tissues. According to the NCI there are over 100 different types of cancer, but breast, colon, lung, pancreatic, prostate, and rectal cancer lead to the greatest number of annual deaths. Risk factors of cancer include but are not limited to: age, alcohol use, tobacco use, a poor diet, certain hormones, and sun exposure.



- The rate of all cancer mortality in St. Louis City (196.0) was highest when compared to St. Louis County (158.6) and Missouri (173.0) for 2015.
- St. Louis County was the only county in Missouri to reach the Healthy People 2020 goal of 161.4 deaths or less.

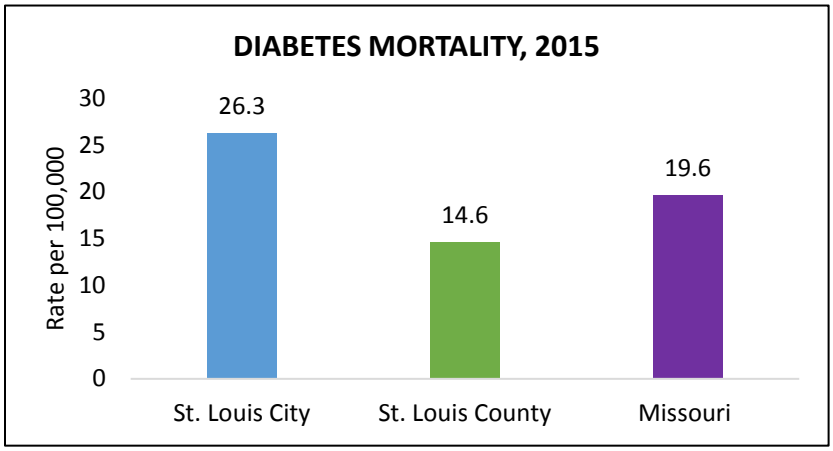


MODHSS, Bureau of Vital Statistics (both charts)

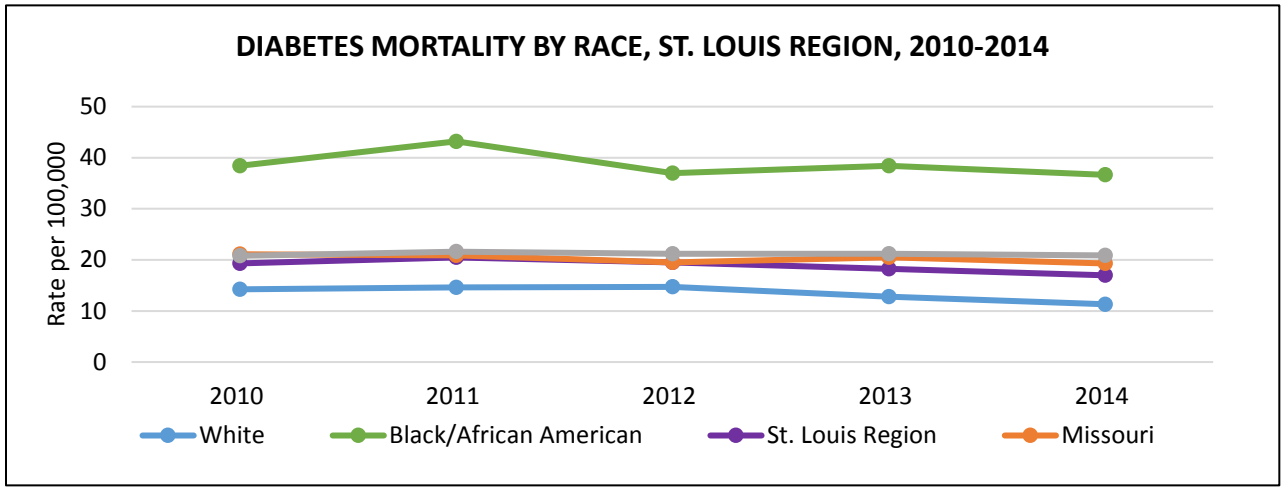
- Over the 2010 to 2014 period, black/African Americans had the highest rates of cancer mortality compared to white and Asian sub-groups in St. Louis County. The Asian subgroup had the lowest rates.
- All racial sub-groups had a percent decrease in cancer mortality over the time period. The decrease for black/African Americans was 19.5%; Whites was 5.1% and Asians was 5.3%.

Diabetes Mortality

Diabetes affected an estimated 29.1 million people in the United States in 2014 and was the 7th LCOD for the US and St. Louis City. Onset of type 2 diabetes has been steadily occurring at an earlier age, with people from minority populations more likely to be affected. Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals. Diabetes is linked to additional diseases occurring at the same time, including: cognitive impairment, incontinence, fracture risk, and cancer risk and prognosis.



- The rate of diabetes mortality in St. Louis City (26.3) was highest when compared to St. Louis County (14.6) and Missouri (19.6) for 2015.
- St. Louis County had the lowest rate of diabetes mortality (14.6) across all three geographies.

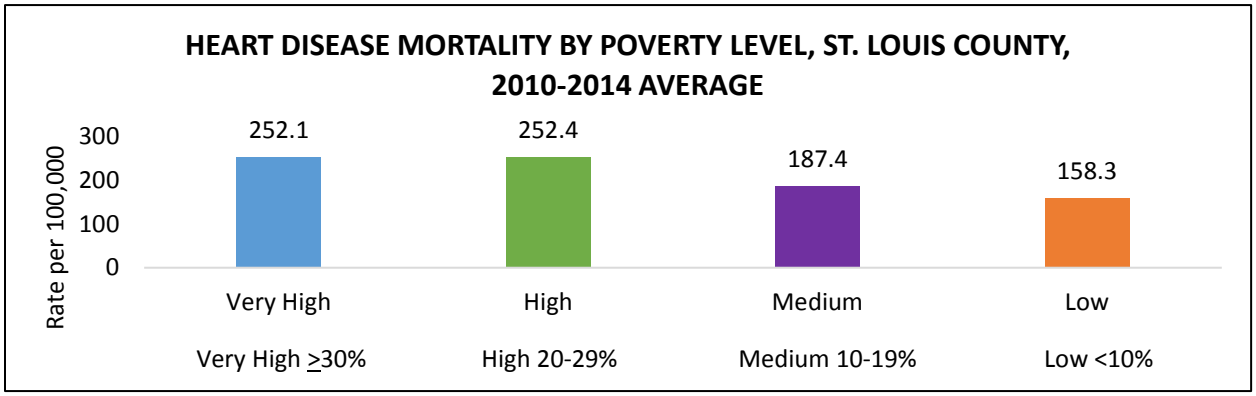


MODHSS, Bureau of Vital Statistics (both charts)

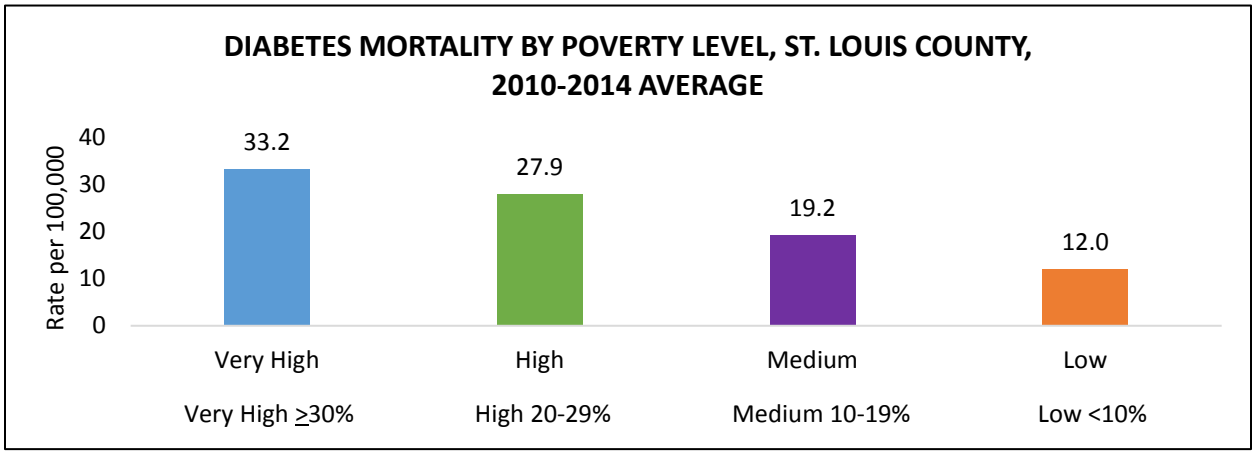
- Over the 2010 to 2014 period, Whites had a 20% decrease in diabetes mortality, compared to only a 4.6% decrease in diabetes mortality in blacks/African Americans in the St. Louis Region.
- Over the 2010 to 2014 time period, Missouri experienced an 8.5% decrease in diabetes mortality.

Mortality by Poverty Level

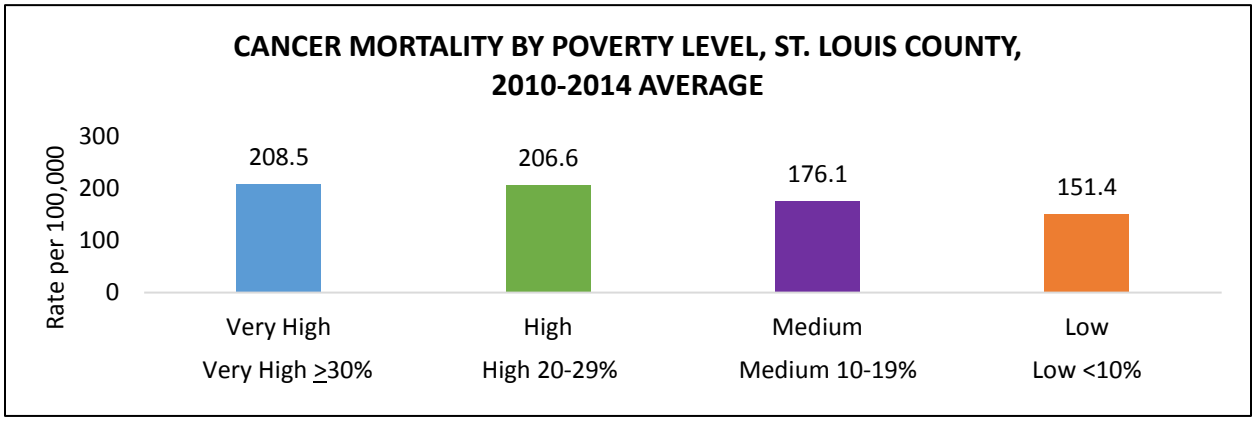
The population with very high and high poverty levels had the highest rates of heart disease, diabetes, and cancer mortality in St. Louis County on average (years 2010 and 2014) when compared across all poverty levels. All data sourced from MODHSS, Bureau of Vital Statistics.



- The rate of heart disease mortality was similar across the very high and high poverty levels.



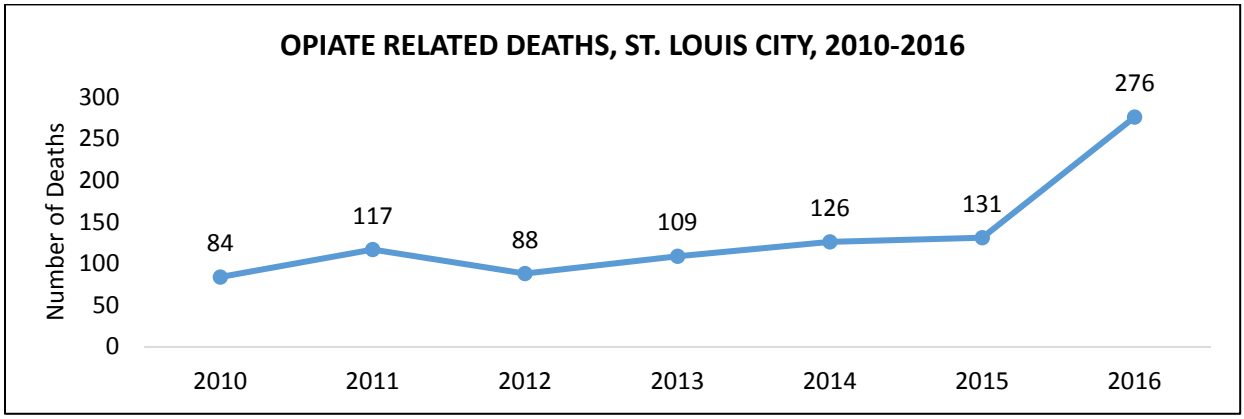
- The rate of diabetes mortality in low poverty level neighborhood (12.0) was almost one third of the rate among very high poverty level population (33.2).



- Cancer mortality was similar across the very high and high poverty levels.

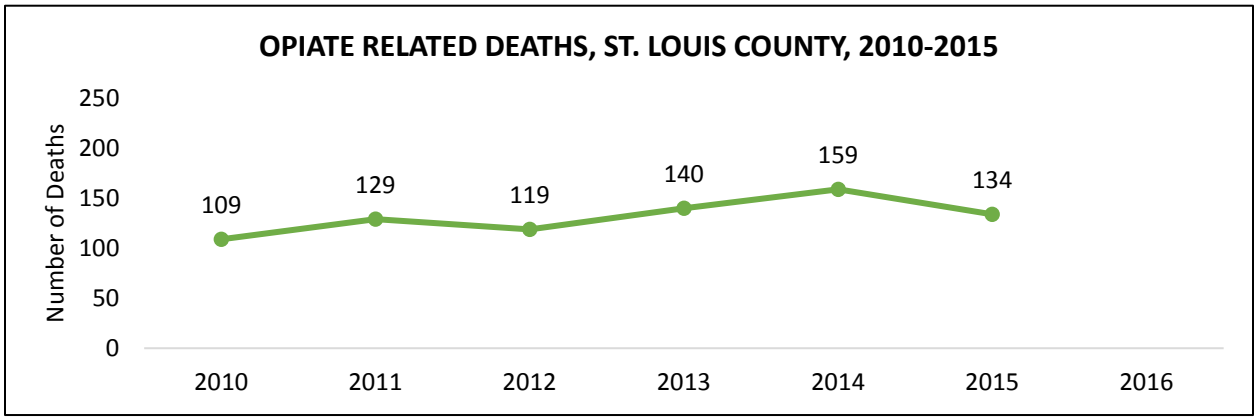
Drug Poisoning Deaths

Poisoning is the leading cause of injury death in the US, with both pharmaceutical and illicit drugs causing the vast majority. Drug overdose is a nationwide epidemic that claims the lives of over 50,000 individuals in the United States every year. Opioids – both prescription painkillers and illegal drugs such as heroin and illicitly manufactured fentanyl – are responsible for most of these deaths.



Office of the Medical Examiner, City of St. Louis

- Opiate-related deaths in St. Louis City include drug poisoning by heroin, fentanyl, a combination of heroin and fentanyl, or positive tests for other and/or multiple opiates.
- The percent change in the number of opiate-related deaths between 2010 and 2016 in St. Louis City was an increase of 228.5%.
- A 110.7% increase occurred between 2015 and 2016 – from 131 deaths to 276.

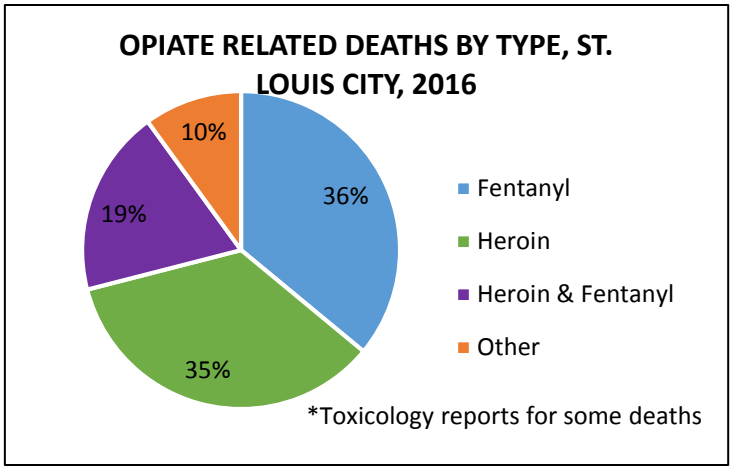


MODHSS, Bureau of Vital Statistics

- The percent change in the number of opiate related deaths between 2010 and 2015 in St. Louis County was an increase of 22.9%.

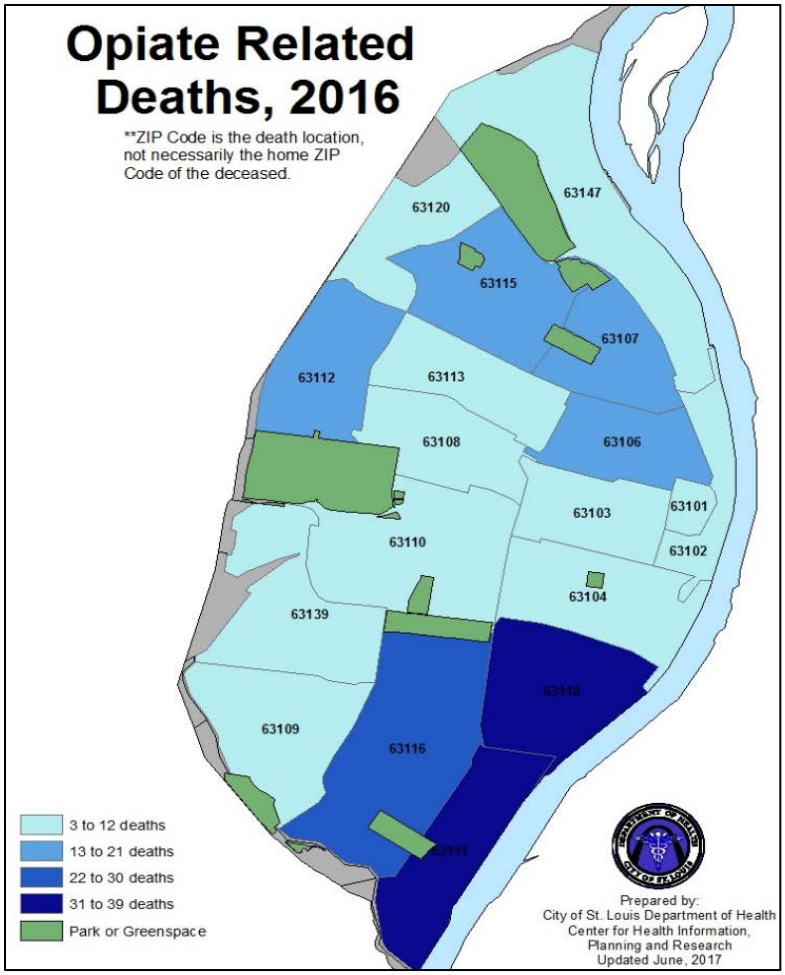
Drug Poisoning Deaths

As mentioned, opioid analgesics are found in a substantial proportion of drug-poisoning deaths. Hydrocodone, morphine, and oxycodone are examples of natural and semisynthetic opioids. Fentanyl and methadone are examples of synthetic opioids.



- Heroin (35%) and Fentanyl (36%) comprised the majority of 2016 opiate-related deaths in St. Louis City.
- A combination of the two were the cause of death for 19% of opiate-related deaths and the remaining 10% of deaths had positive results for multiple other and/or multiple opiates.

Office of the Medical Examiner, City of St. Louis



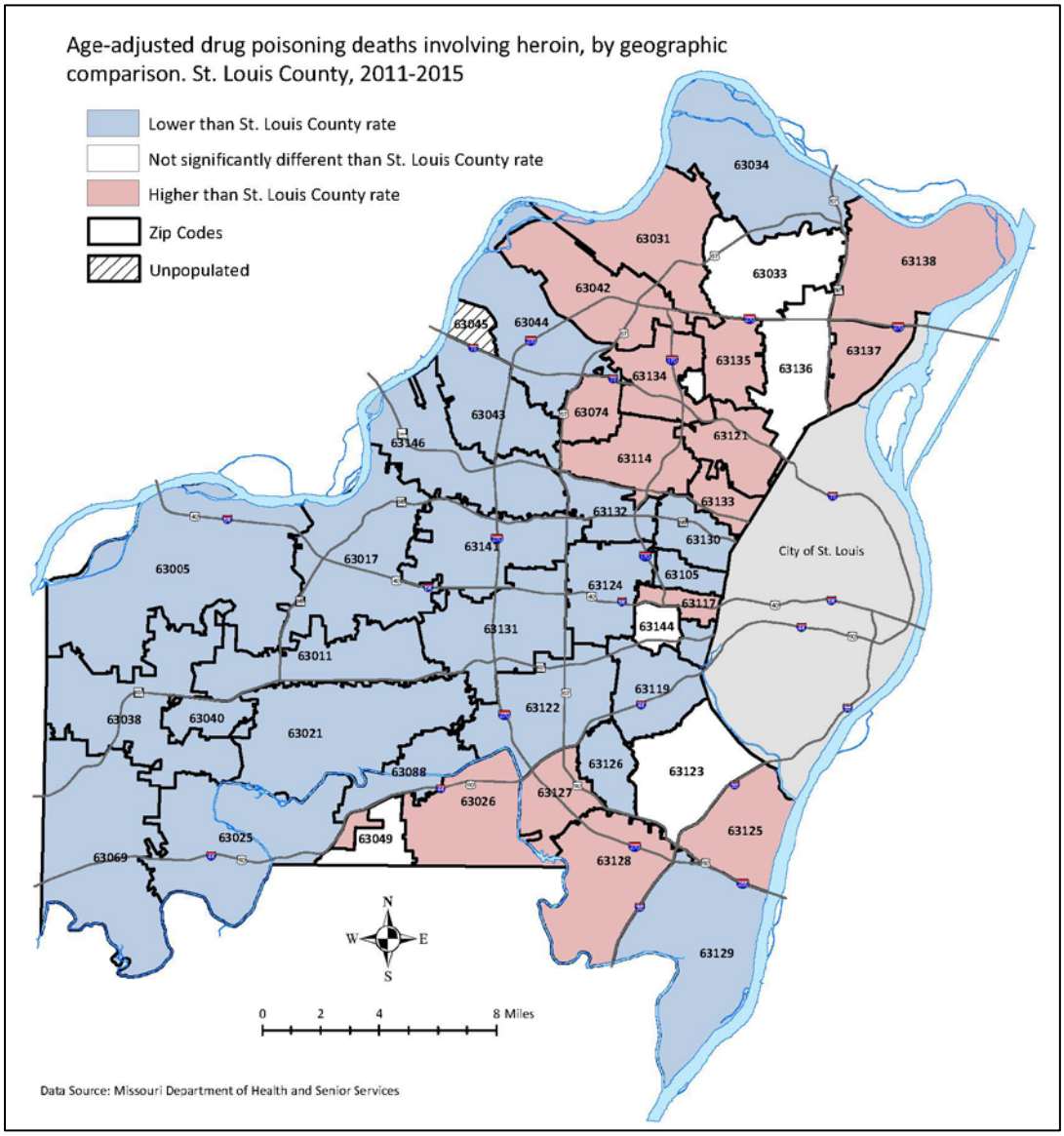
- Opiate-related deaths occurred in every zip code of St. Louis City in 2016.
- The three zip codes with the highest counts were in south St. Louis City (63118, 63111), followed by 63116.

Office of the Medical Examiner, City of St. Louis

Drug Poisoning Deaths

Cases of drug poisoning deaths involving heroin were identified using the International Classification of Diseases, Tenth Revision (ICD‐10) underlying cause code T40.1 or the combination of the underlying poisoning cause codes X40‐X44 (unintentional), X60‐X64 (suicide), X85 (homicide), or Y10‐Y14 (undetermined intent) and multiple cause code T40.1.

-

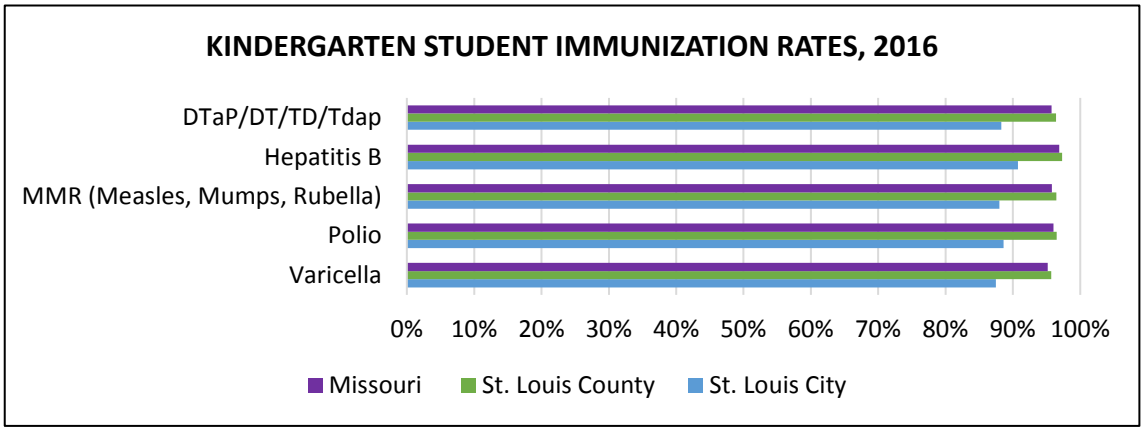


- The data presented captures all heroin deaths of St. Louis County residents (within or outside of St. Louis County).
- This map shows zip codes in the outer and inner north, south, and one in the central sub-region where the rates are higher than the overall St. Louis County rate.
- The majority of the central and west sub-region have lower rates than the overall County. See the full St. Louis County Department of Public Health Heroin Profile for more information.

COMMUNICABLE DISEASE CONTROL

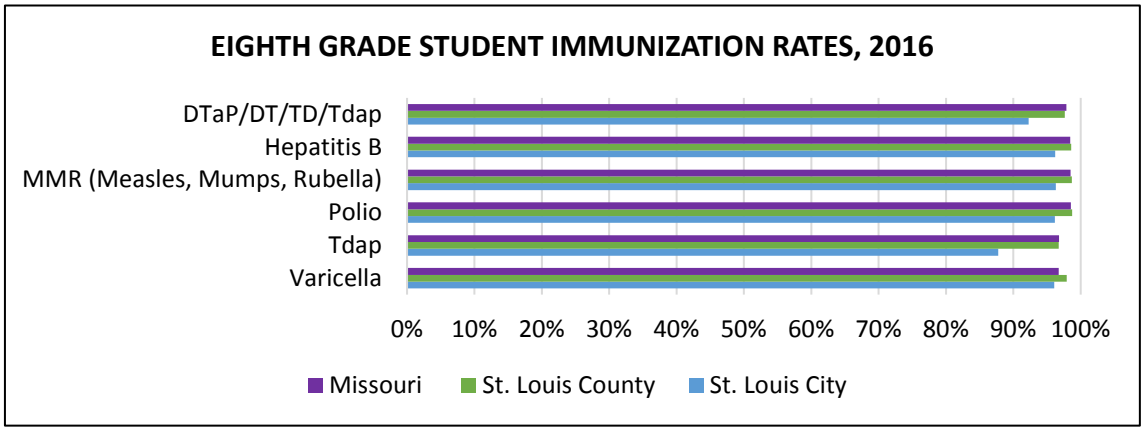
Immunization Rate by Series

There are few examples of personal interventions that can virtually prevent a disease from occurring. The best example of this is access to immunizations for childhood diseases. Despite evidence of prevention, accessibility, and monetary gain, communities with pockets of unvaccinated and under-vaccinated populations remain at increased risk for outbreaks of vaccine-preventable diseases. According to Healthy People, 11 states collected kindergarten vaccination coverage data according to CDC minimum standards in 2009-2010. The HP2020 target is set at 51 states. Because jurisdiction reporting is not required in the state of Missouri, numerous medical providers in the St. Louis Region do not report patient vaccination information to the Missouri Department of Health and Senior Services. However, it is our goal to present immunizations data that is available for 2016 in an effort to establish baseline reporting.



MODHSS (both charts)

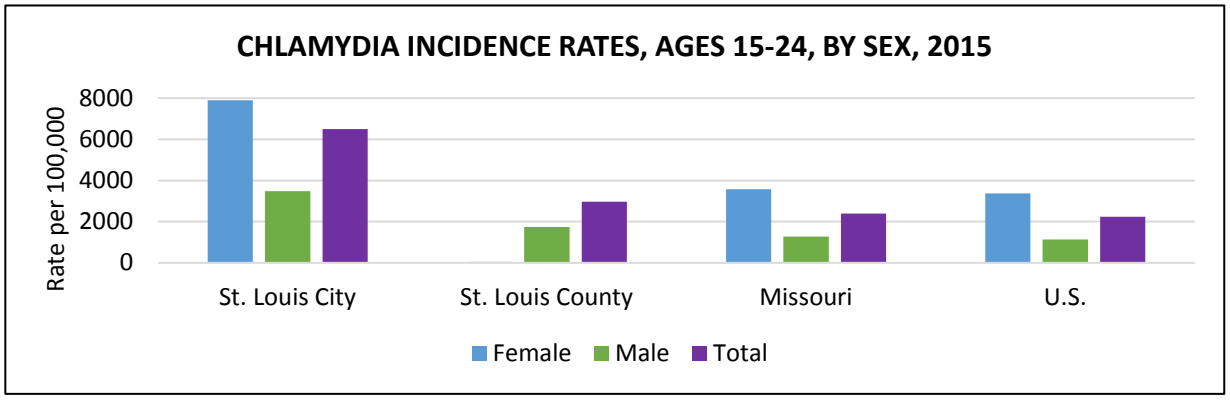
- Of all vaccination series, St. Louis County has exceeded the HP2020 target (95% for all series) as well as the state rate for kindergarten students in 2016.



- St. Louis County eighth grade students have achieved higher rates of vaccination than Missouri for nearly all series. St. Louis County has exceeded the HP2020 targets for adolescents aged 13-15 years vaccination series of Tdap and Varicella (80% for both series).

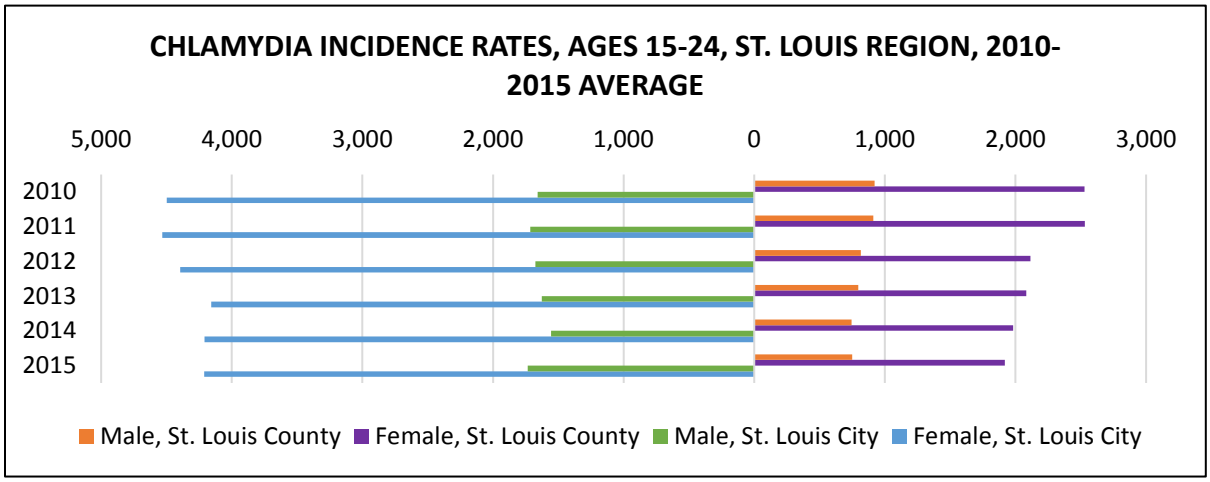
Chlamydia

Chlamydia is a common STD that can infect both men and women. It can cause serious, permanent damage to a woman's reproductive system. A person who has already been treated for chlamydia can still be infected again. Most chlamydial infections are absent of any symptoms, and rates of reported cases are affected by the type of test used and the amount of the population screened. Chlamydia is the most frequently reported communicable disease in the United States and in St. Louis County. Similarly, the highest reported rates were among females aged 15‑19 and aged 20-24. Note that differences in incidence may be due to differences in testing rates.



MODHSS (both charts)

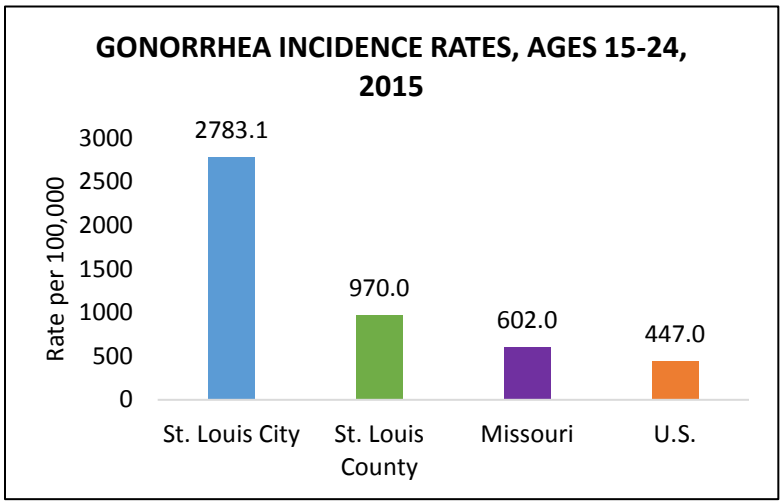
- Rates of new chlamydia infections in 20015 were higher among females, with the exception of St. Louis County. St. Louis City had the highest rates, when compared to other geographies.



- Females aged 15-24 in St. Louis City had the highest rates of chlamydia incidence compared to males in both St. Louis City and County for all periods of measurement.

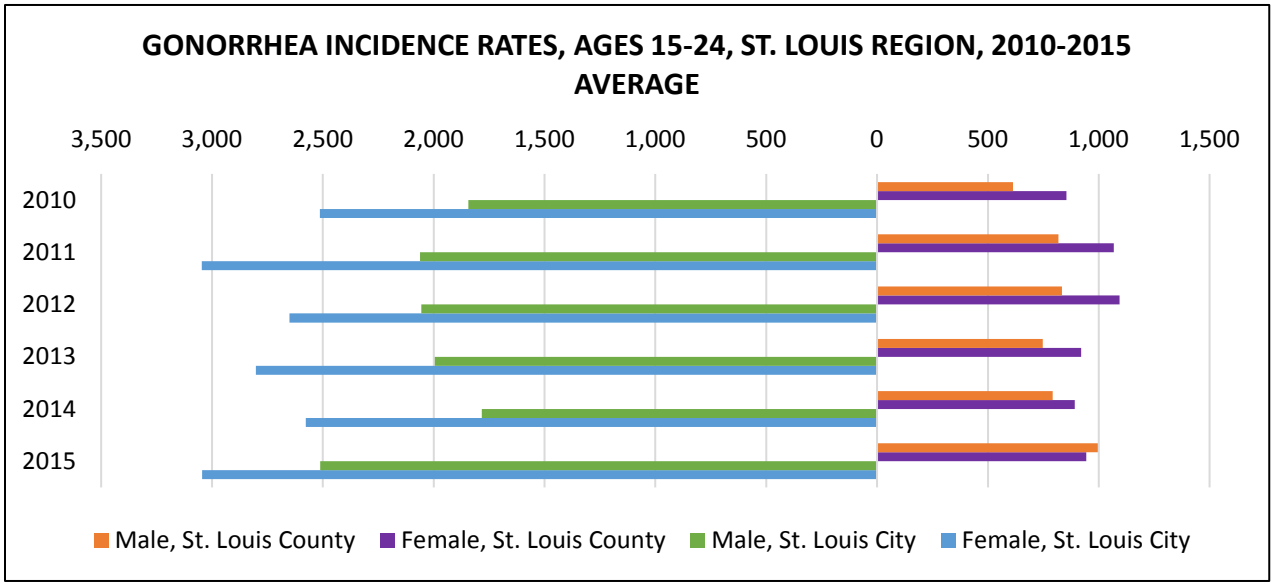
Gonorrhea

Gonorrhea is a sexually transmitted disease (STD) that can infect both men and women. It can cause infections in the genitals, rectum, and throat. Nationally, the rate among men steadily increased during the time period 2009-2014, yet decreased among women. This may suggest increased transmission or case detection, including expanded gonorrhea screening among gay, bisexual, and other men who have sex with men. The St. Louis population is 29% black, but approximately 70% of St. Louis chlamydia cases were reported in black residents. Note that differences in incidence may be due to differences in testing rates.



- In 2016, 55% of St. Louis gonorrhea cases were reported among people aged 15 to 24 year, which is down from 64% in 2012.
- Gonorrhea incidence has increased in all age groups, but has increased more quickly among 25 to 29 year olds and 30 to 39 year olds.

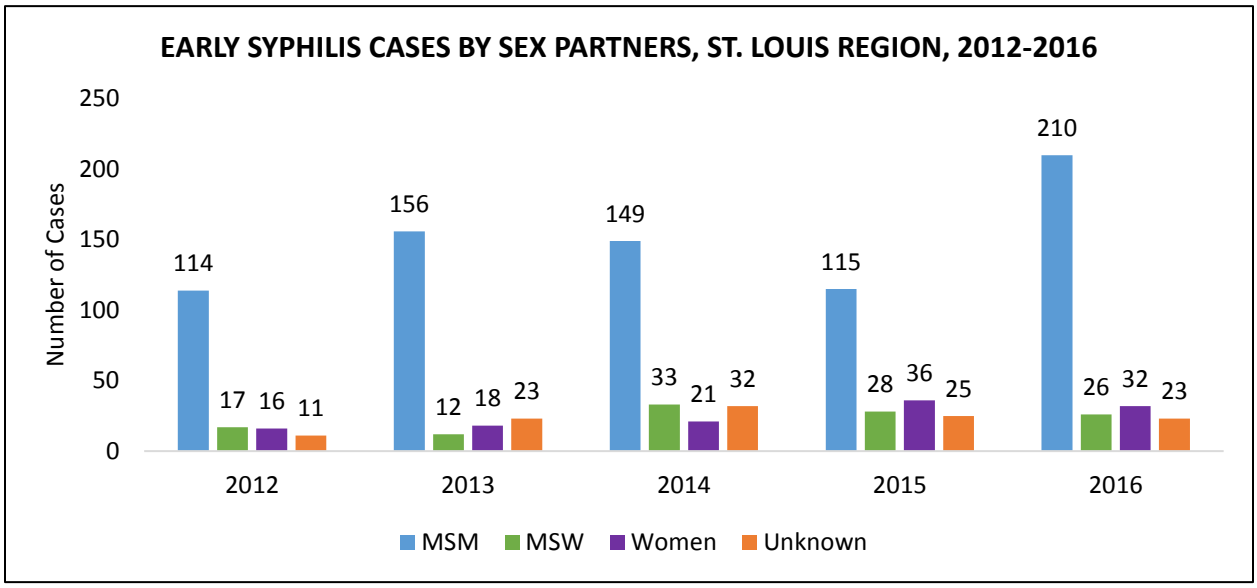
MODHSS (both charts)



- Rates of gonorrhea were higher in St. Louis City for both males and females across all periods of measurement. The gonorrhea incidence rate increased over time between 2010 and 2015 in both St. Louis City and County males and females.

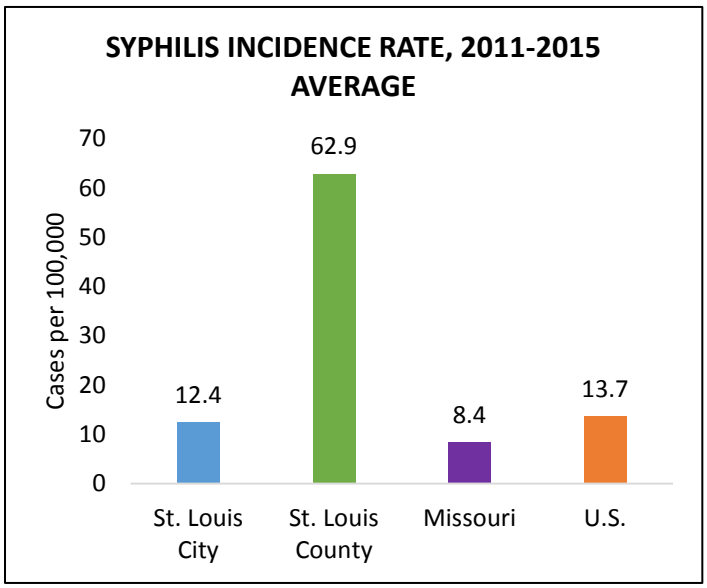
Syphilis

The signs and symptoms of syphilis vary depending on what stage the disease has presented. Nationally, the primary and secondary syphilis rate has increased almost every year since 2000, and is mostly linked to increased cases among men and, specifically, among gay, bisexual, and other men who have sex with men, but female syphilis incidence has doubled since 2012 as well. Syphilis surveillance traditionally focuses on the primary and secondary stages of the disease, when visible signs of recently acquired infections appear. Note that differences in incidence may be due to differences in testing rates.



MODHSS (both charts)

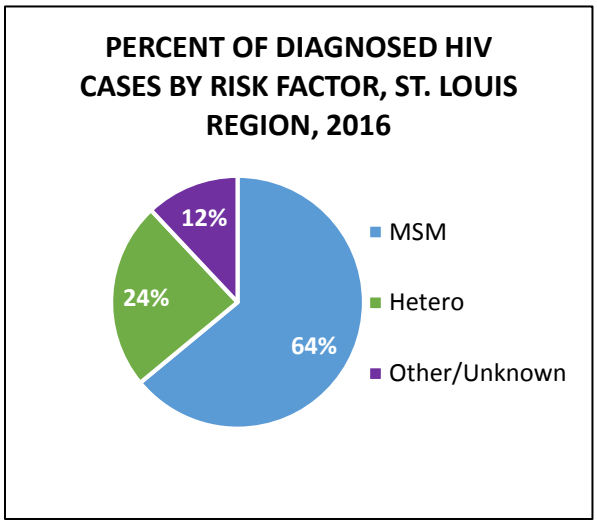
- The greatest proportion of early syphilis cases in the St. Louis Region occurred in men who have sex with men when compared to males who have sex with women, women, and unknown sex partner, with a range of 56% to 72% for all years from 2012 through 2016.

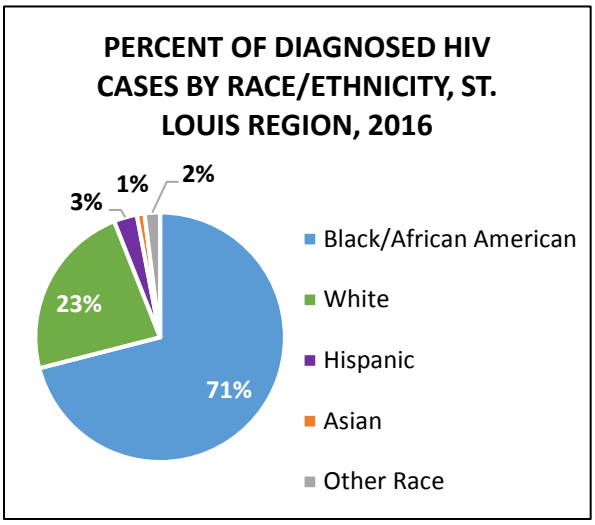


- The rate of syphilis incidence was highest in St. Louis County when compared to St. Louis City, Missouri, and the United States between 2011 and 2015, on average.
- St. Louis County's syphilis incidence rate was between four and a half and seven and a half times higher than Missouri, St. Louis City, and the U.S.

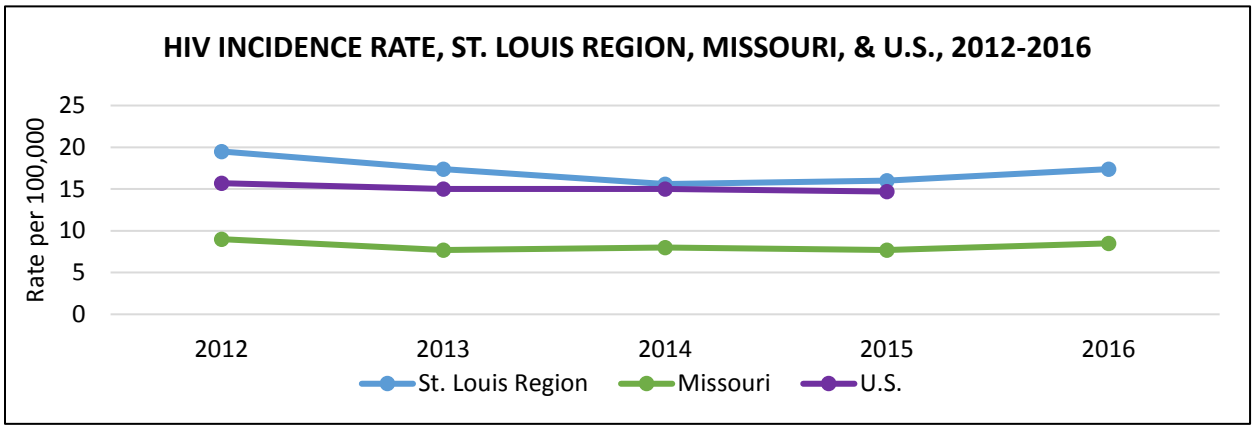
HIV

The risk of getting human immunodeficiency virus (HIV) varies widely depending on the type of contact or behavior (such as sharing needles or having sex without a condom). Some exposures to HIV carry a much higher risk of transmission than other exposures. For example, parenteral exposure through blood transfusion has a risk of 9,250 per 10,000 exposures whereas sexual exposure through anal intercourse has a risk of 138 per 10,000 exposures. In the United States, HIV is mainly spread by having sex or sharing syringes and other injection equipment with someone who is infected with HIV. Substance use can contribute to these risks indirectly because alcohol and other drugs can lower people's inhibitions and make them less likely to use condoms. All data provided by MODHSS.





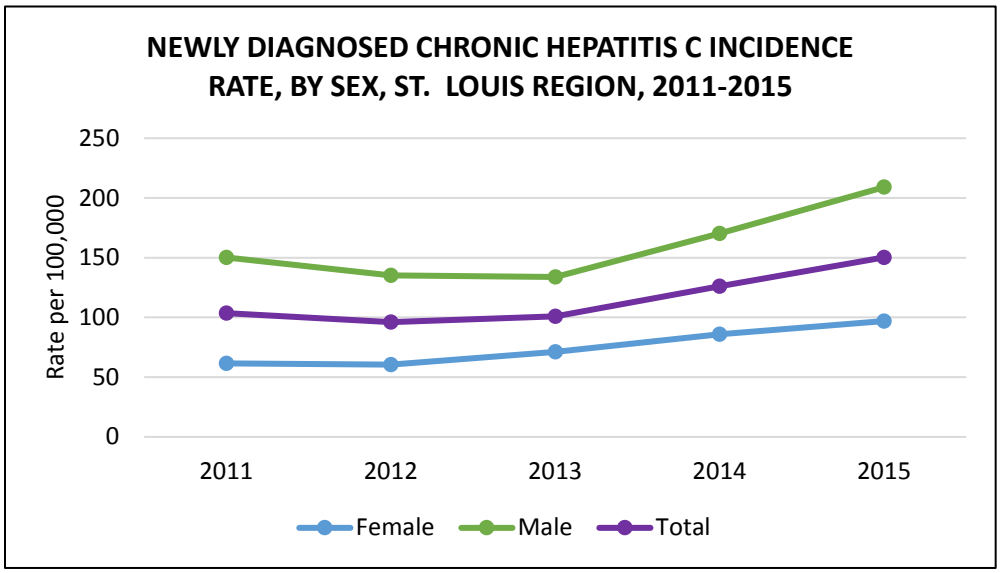
- A majority of diagnosed HIV cases in the St. Louis Region were among men who have sex with men, when compared to heterosexual individuals and other or unknown partner status in 2016.
- When comparing race and ethnicity groups, the percent of diagnosed HIV cases were highest among black/African American individuals in the St. Louis Region in 2016.



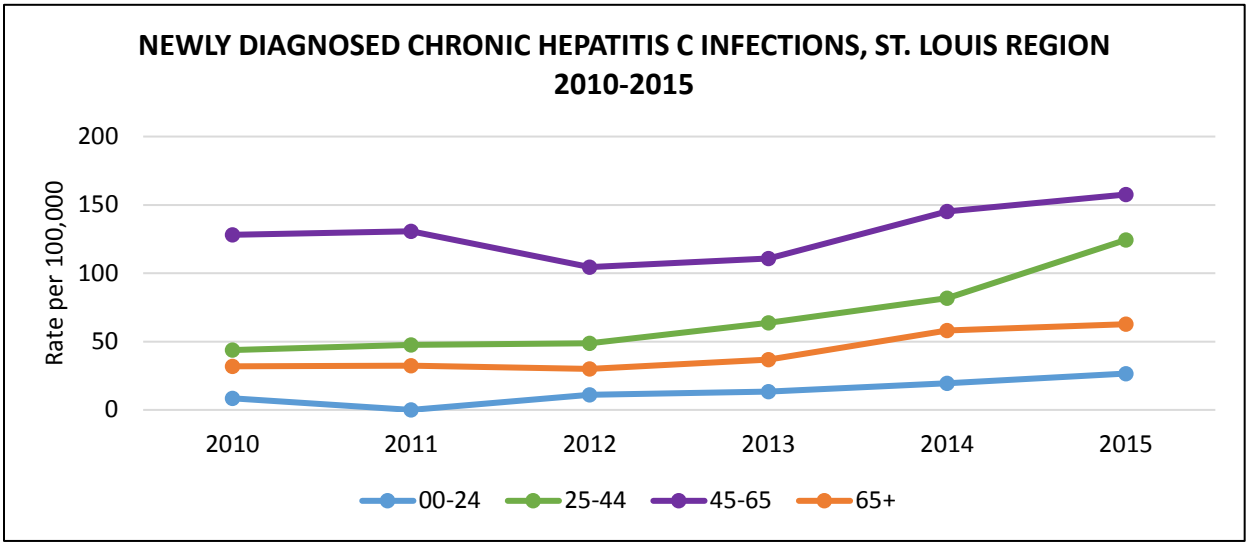
- For all periods of measurement between 2012 and 2016, the HIV incidence rate was highest in the St. Louis Region when compared to Missouri and the U.S. Rates were similar in 2014 and 2015 in both the St. Louis Region (15.6 and 16.0, respectively) and the U.S. (15.0 and 14.7, respectively).

Hepatitis C

Today, most people become infected with the Hepatitis C virus by sharing needles or other equipment to inject drugs. For some people, Hepatitis C is a short-term illness but for most people who become infected with Hepatitis C, it becomes a long-term, chronic infection. Chronic Hepatitis C is a serious disease that can result in long-term health problems, even death. The majority of infected persons might not be aware of their infection because they are not clinically ill. There is no vaccine for Hepatitis C. The best way to prevent Hepatitis C is by avoiding behaviors that can spread the disease, especially injecting and snorting drugs, and having unprotected sex. All data provided by MODHSS.



- Men had a higher incidence of chronic hepatitis C diagnosis compared to women between 2011 and 2015. However, the incidence in both men and women has been increasing over time.

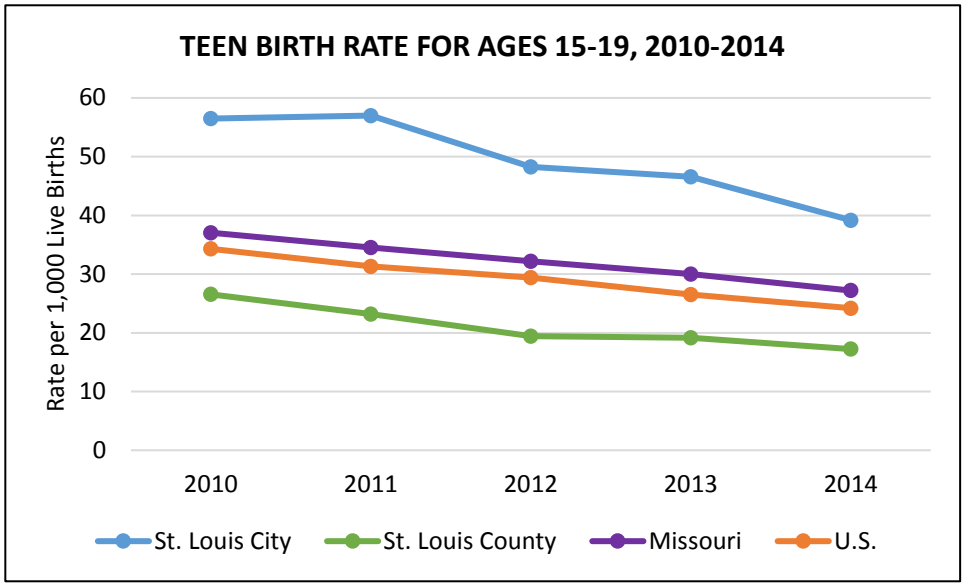


- Incidence of chronic hepatitis C has been increasing among all ages from 2010 through 2015.
- The highest incidence rate was in the 45 to 65 year old age group.

MATERNAL, CHILD, AND FAMILY HEALTH

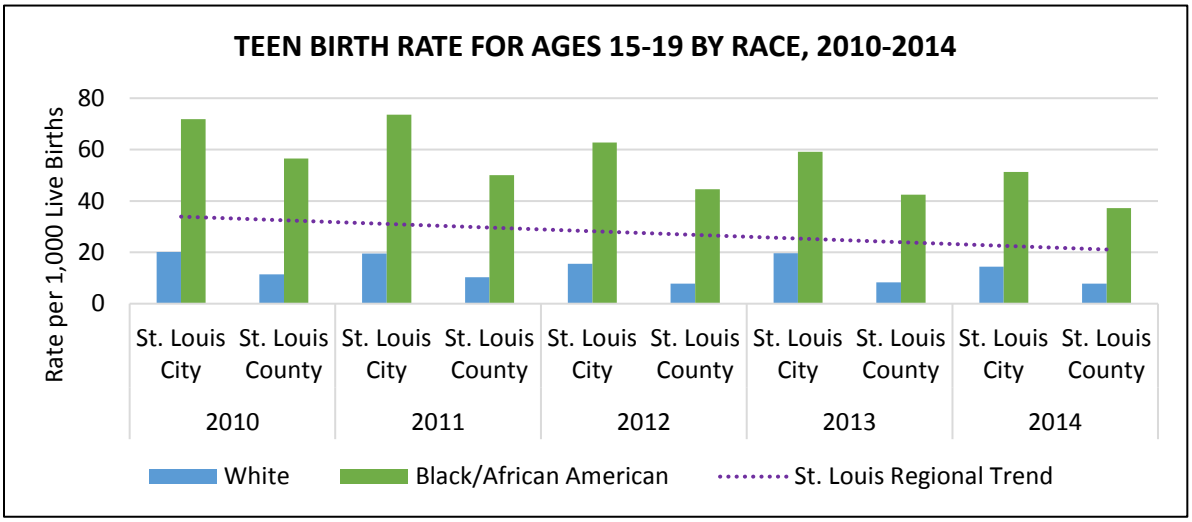
Teen Births

Teen births are those to mothers 15-19 years old. Poverty can be a cause and outcome of teen births. 52% of mothers on public assistance had their first child as a teenager. Teen pregnancy leads to a significant number of girls dropping out of high school. Children of teen mothers are at significantly increased risk for a number of social, economic, and health problems. Health problems can include low birth weight, less likely to complete high school, and more likely to have lower performance on standardized tests.



- The rate of teen births has decreased in all geographic regions from the 2010 to 2014 period.

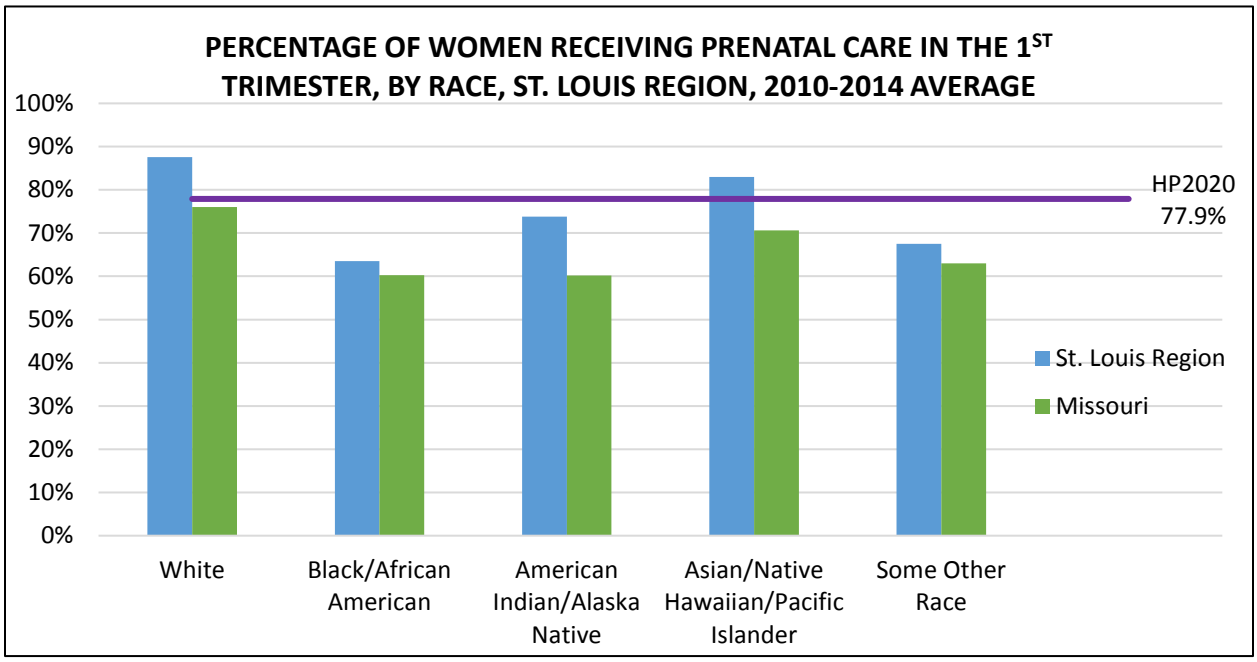
MODHSS, Bureau of Vital Statistics (both charts)



- Teen pregnancy continues to drop in the St. Louis Region with an 11% decrease for St. Louis City, and a 3% decrease in St. Louis County.

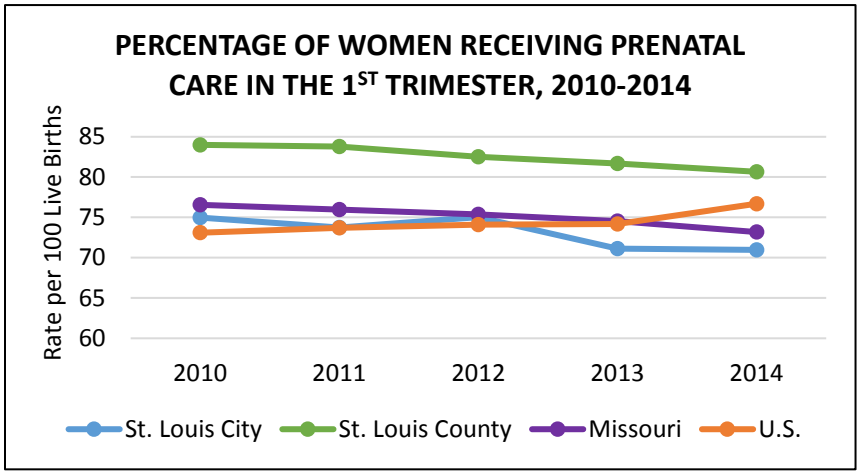
Prenatal Care in the First Trimester

The leading causes of death among infants include birth defects, preterm delivery, low birth weight, Sudden Infant Death Syndrome (SIDS), maternal complications during pregnancy, and unintentional injuries (including suffocation). Excluding birth defects, premature birth/low birth weight causes more infant deaths in St. Louis than all other causes combined. Prenatal care is a woman's health before and during pregnancy and includes knowing which risk factors could affect a woman or her unborn baby. Numerous studies have shown links between the early initiation, amount, and content of prenatal care and birth outcomes. Outcomes that indicate problems in access include infant mortality, low birthweight, and incidence of congenital syphilis.



MODHSS, Bureau of Vital Statistics (both charts)

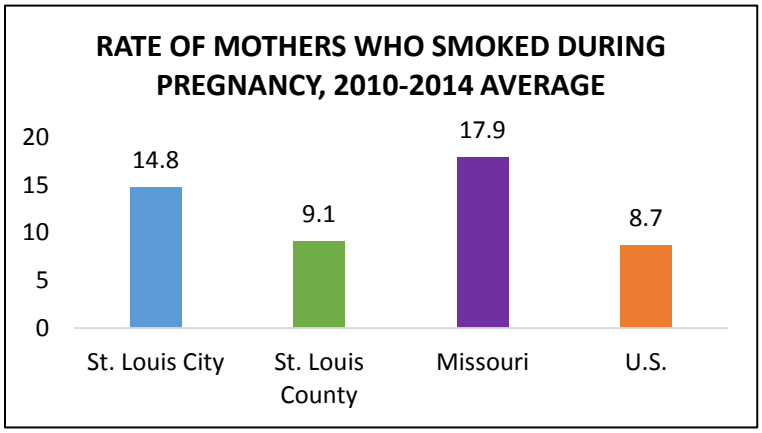
- The St. Louis region has not met the Healthy People 2020 goal of 77.9 per 1,000 women receiving prenatal care in the first trimester by race, except for white (87.6%) and Asian (83%) women between 2010 and 2014, on average. Black/African American rates were lowest (63.5%).



- St. Louis City and County and Missouri have all seen a decrease in the percent of women receiving prenatal care in the first semester between 2010 and 2014, while the U.S. percent has increased.

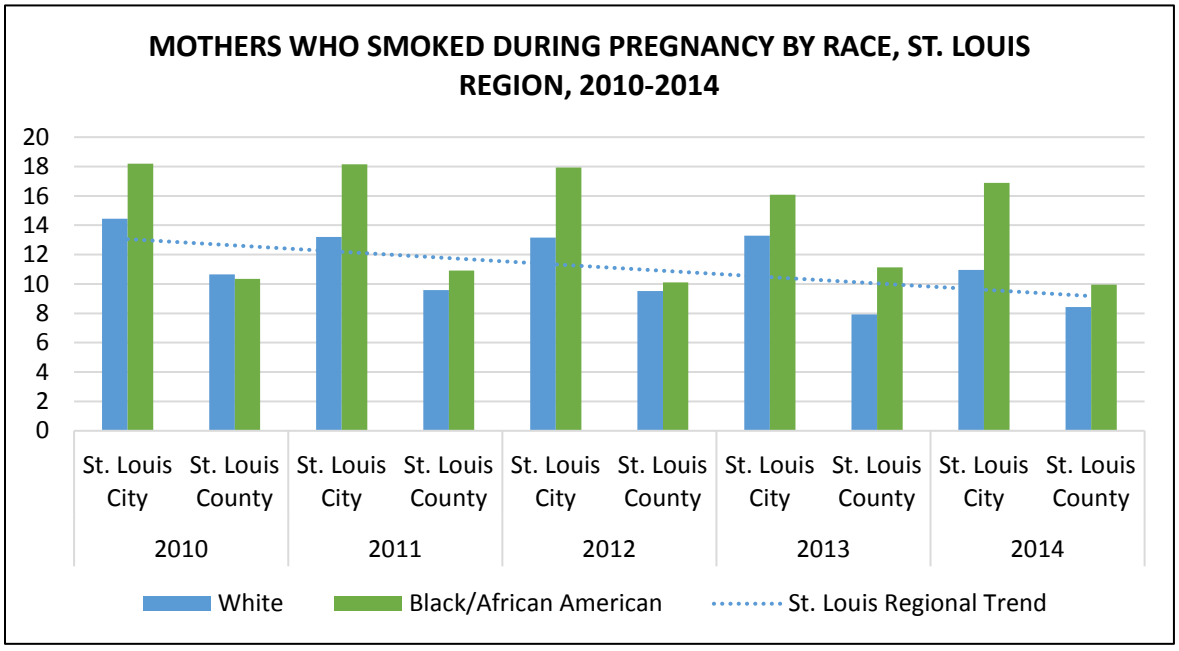
Mothers Who Smoked During Pregnancy

This indicator shows the percentage of births to mothers who smoked and/or used tobacco during pregnancy. Mothers who smoke during pregnancy are more likely to have placental problems, bleeding, preterm labor, and ectopic pregnancy than non-smokers. Smoking during pregnancy also harms the baby which can result in low birth weight, sudden infant death, birth defects, miscarriage or stillbirth. The Healthy People 2020 national health target is to decrease the percentage of women who gave birth and who smoked cigarettes during pregnancy to 1.4%.



- The rate of mothers who smoked during pregnancy in St. Louis City was higher than St. Louis County, but both were lower than the rate in Missouri.

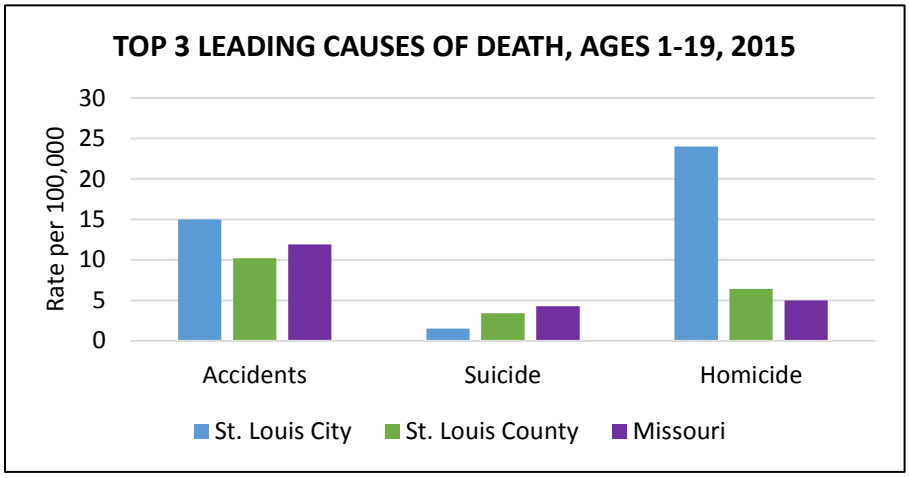
MODHSS, both charts



- Between 2010 and 2014, on average, the rate of mothers who smoked during pregnancy in both St. Louis City and St. Louis County decreased. This is true for both Whites and Blacks/African Americans.

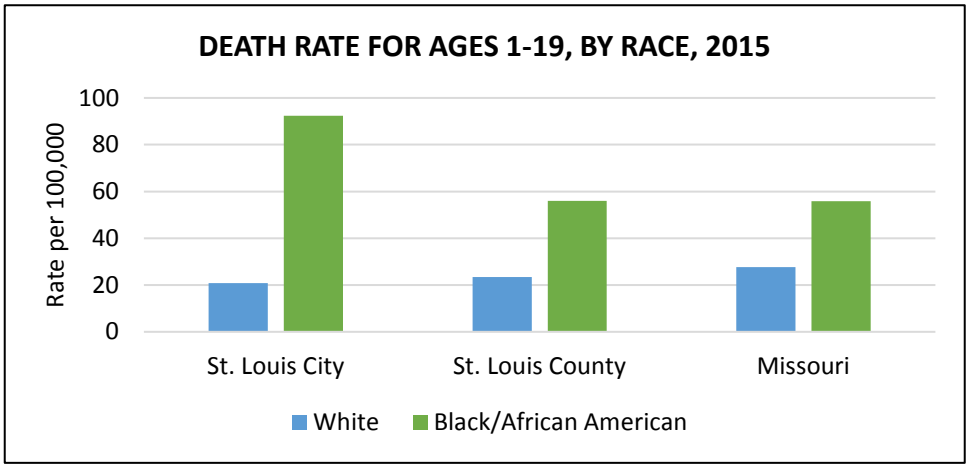
Leading Causes of Death for Ages 1-19

The three leading causes of death among ages 1-19 are: Accidents (unintentional injury), suicides, and homicides. A racial disparity exists in both the city and county, as the rate of death among black children is significantly higher than the rate of white children. Socio-economic factors impact the health of the community, and lead to several health inequities.



- In St. Louis City, homicide is the leading cause of death for children age 1-19. In St. Louis County, accidents are the leading cause of death for this age group. In Missouri, accidents are also the leading cause of death for ages 1-19.

MODHSS, Bureau of Vital Statistics (both charts)

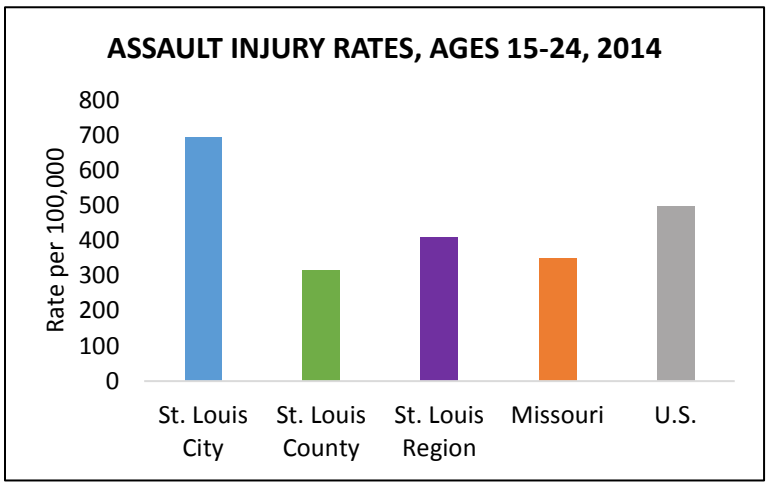


- The rates of death for black children in St. Louis City is 92.4 per 100,000, almost double the state's rate of 55.8 per 100,000. St. Louis County and Missouri have similar differences in deaths rates between races.

- The death rate among whites in St. Louis County is slighter higher than that in St. Louis City, and the death rate among whites in Missouri is slightly higher than both St. Louis City and St. Louis County.

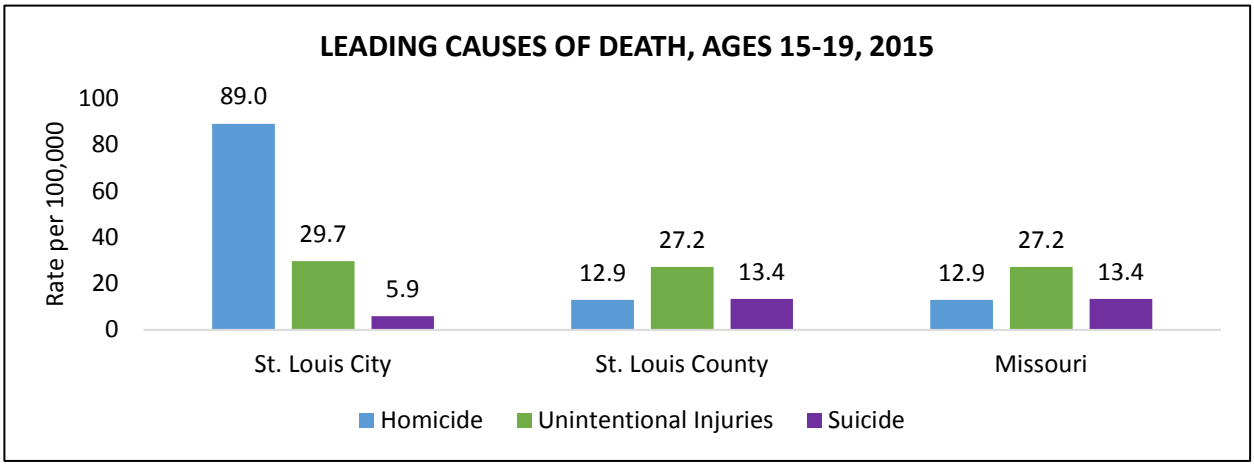
Leading Causes of Death for Ages 15-19

Assault injury refers to deaths, hospitalizations, and ER visits where the underlying cause of death or primary diagnosis was injury due to being assaulted by another person. Assault-injured youth seeking ED care report higher levels of previous violence, weapon exposure, and substance use compared with a group of peers seeking care for non-assault-related care. Teens and young adults are disproportionately affected by these types of injuries. Black males are disproportionately affected by assault injuries and homicides. The death rate for ages 15-19 continues to increase from 2010 to 2015, and is highest among ages 15-17.



- Assault injury rate in 2014 for St. Louis City was 695 per 100,000, and 316 per 100,000 in St. Louis County. The City's rate is one and a half times higher than the US rate of 496 per 100,000.

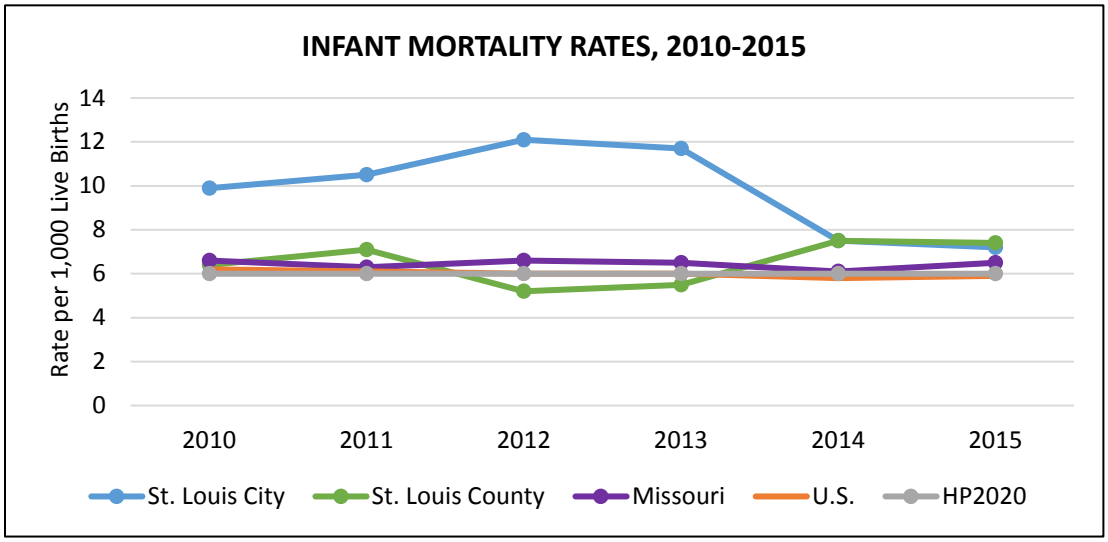
MODHSS, Bureau of Vital Statistics (both charts)



- The leading cause of death among children ages 15-19 in St. Louis City is homicide, and the leading cause of death of this group in St. Louis County and Missouri is unintentional injuries.
- The homicide rate among teens in St. Louis City is 89.0 per 100,000, and is 6.8 times higher than both the state and county average, which are both 12.9 per 100,000.

Infant Mortality

Infant mortality is the death of a baby before their birthday. This rate is often used as an indicator to measure the health and well-being of a community, because of its association with many factors including the health of the mother, quality and access to care for mother and infant, socioeconomic conditions, and public health practices. Infant mortality is often considered preventable and thus can be influenced by education programs and service provision.



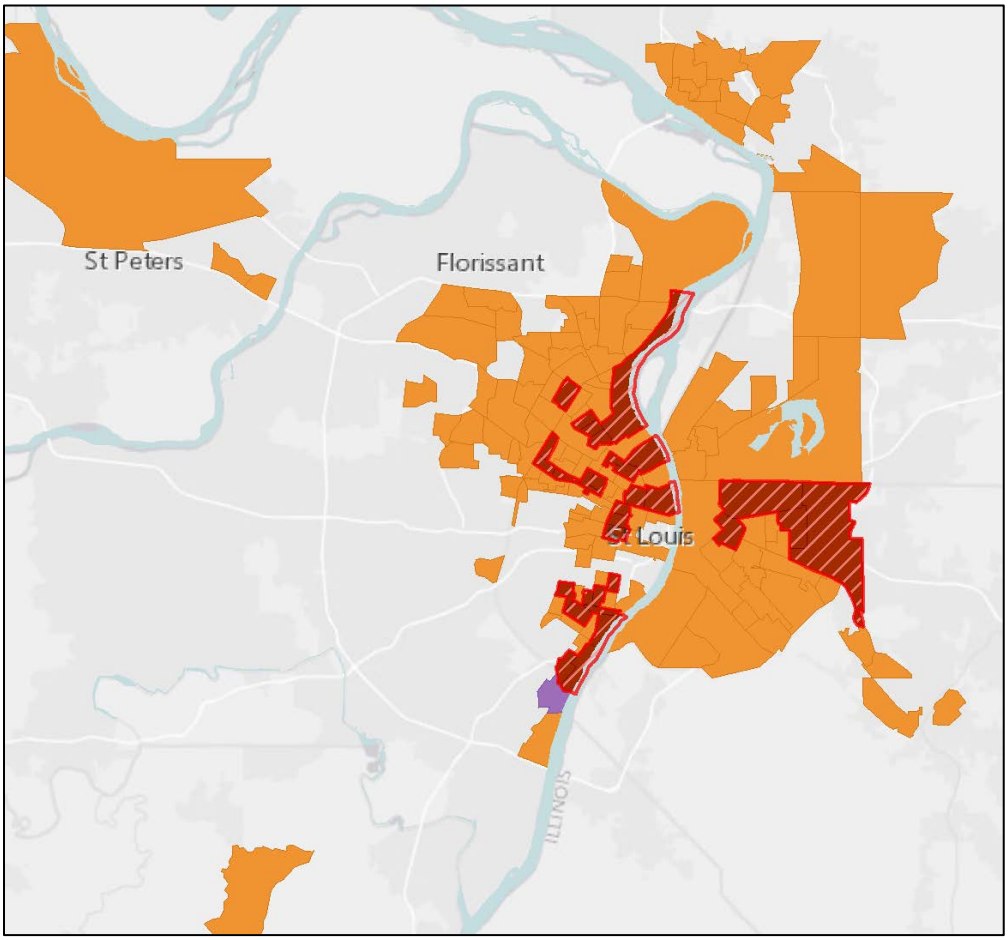
MODHSS, Bureau of Vital Statistics

- While much of the US has steadily decreased infant mortality rates for years, St. Louis City has consistently seen higher rates. However, in 2015, the city's rate of 7.2 per 1,000 live births was a 27% decrease compared to the 2010 rate of 9.9.
- During the same time period, rates in St. Louis County fluctuated between 5.2 and 7.4 per 1,000 live births with an overall 16%increase from in infant mortality rates from 2010 to 2015.
- Infant mortality rates in both St. Louis City and St. Louis County combined continue to remain higher than the state average of 6.5 per 1,000 live births, at a 2015 rate of 7.3 per 1,000 live births. However, all three geographies are still higher than the Healthy People 2020 national target of 6 deaths per 1,000 live births.

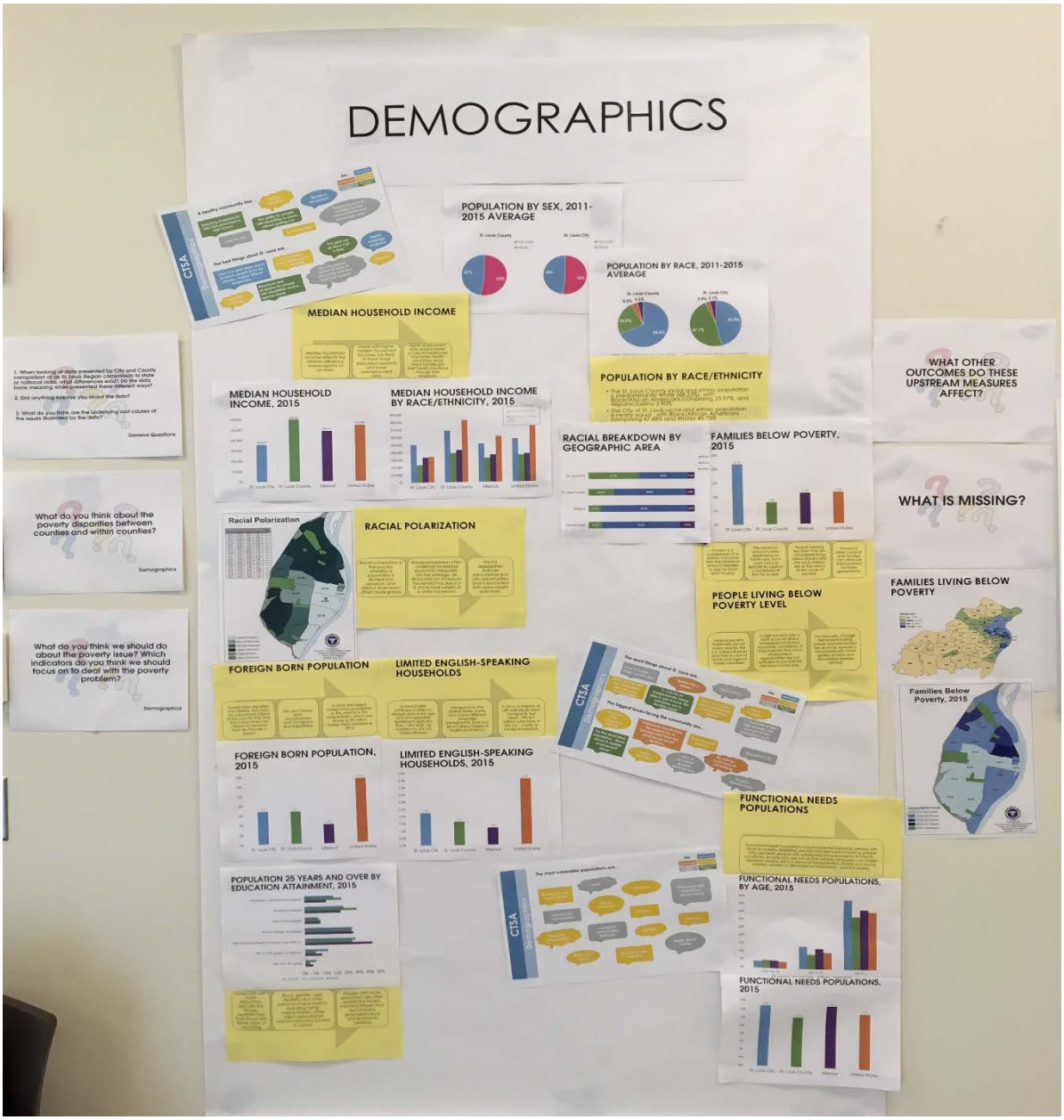
CONCLUSION

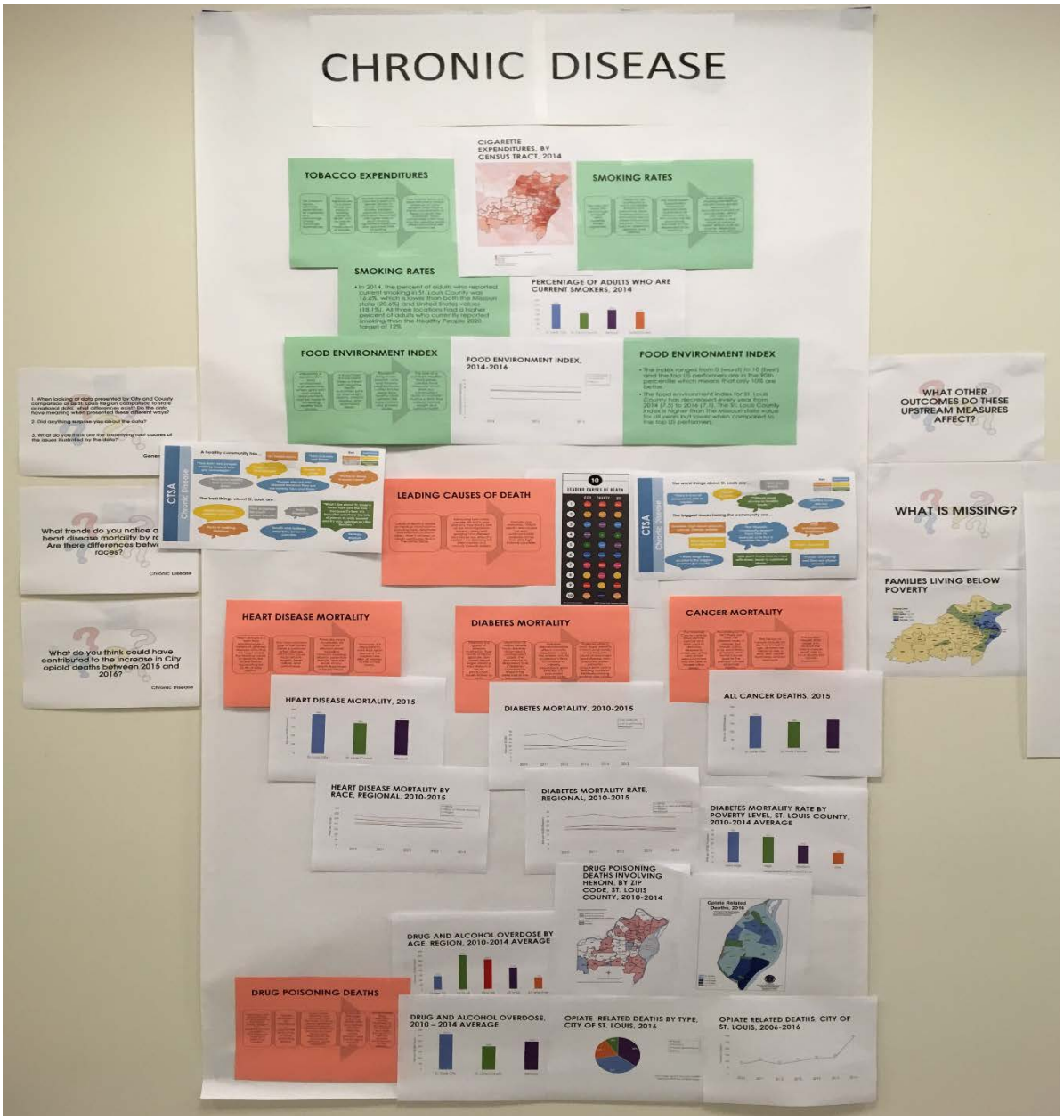
The St. Louis Partnership for a Healthy Community is committed to improving the health of the St. Louis Region. Addressing the most vulnerable populations such as the under-insured, low-income, and at-risk populations is key to improving the health inequities that exist within the region. Looking at the Vulnerable Populations Footprint of our region in the map below, one can see the most needed areas to focus resources. The orange areas show populations with greater than 30% below poverty, and the red areas include those with 30% or more of the population having less than a high school education. Much of the data analyzed for the purpose of this assessment, showed a strong correlation between these same areas of poverty with the higher rates of disease, injury, and death.

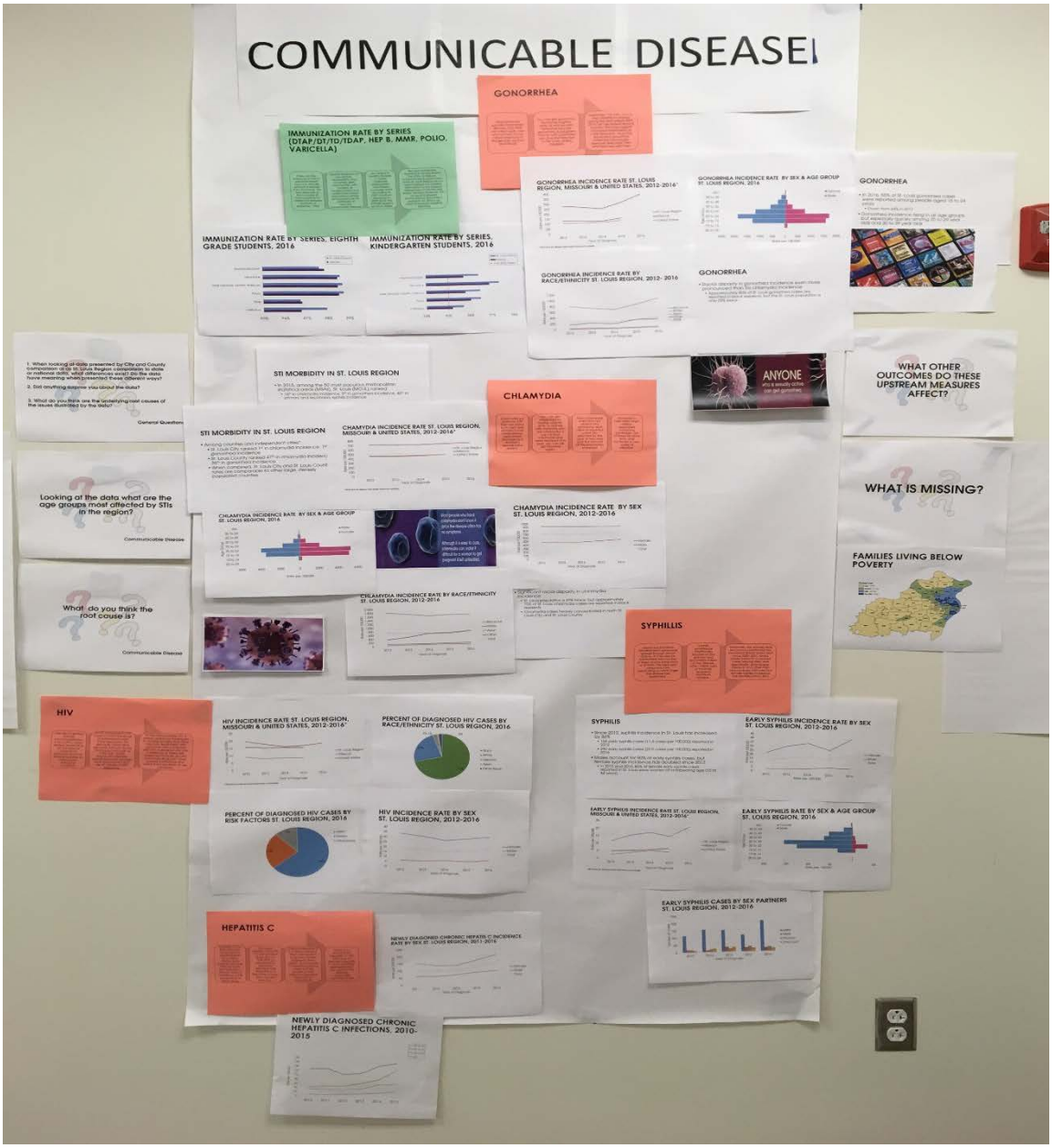
VULNERABLE POPULATIONS FOOTPRINT

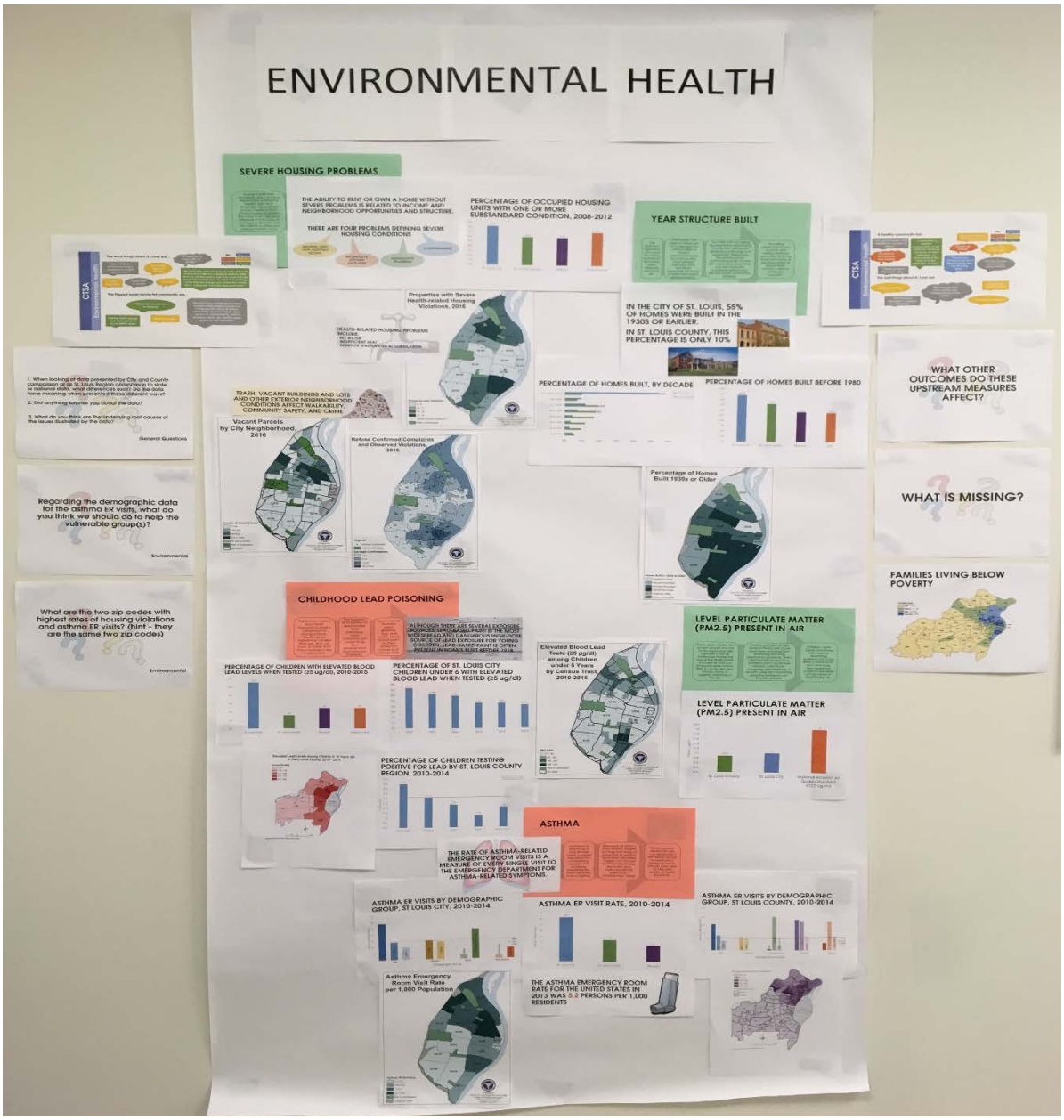


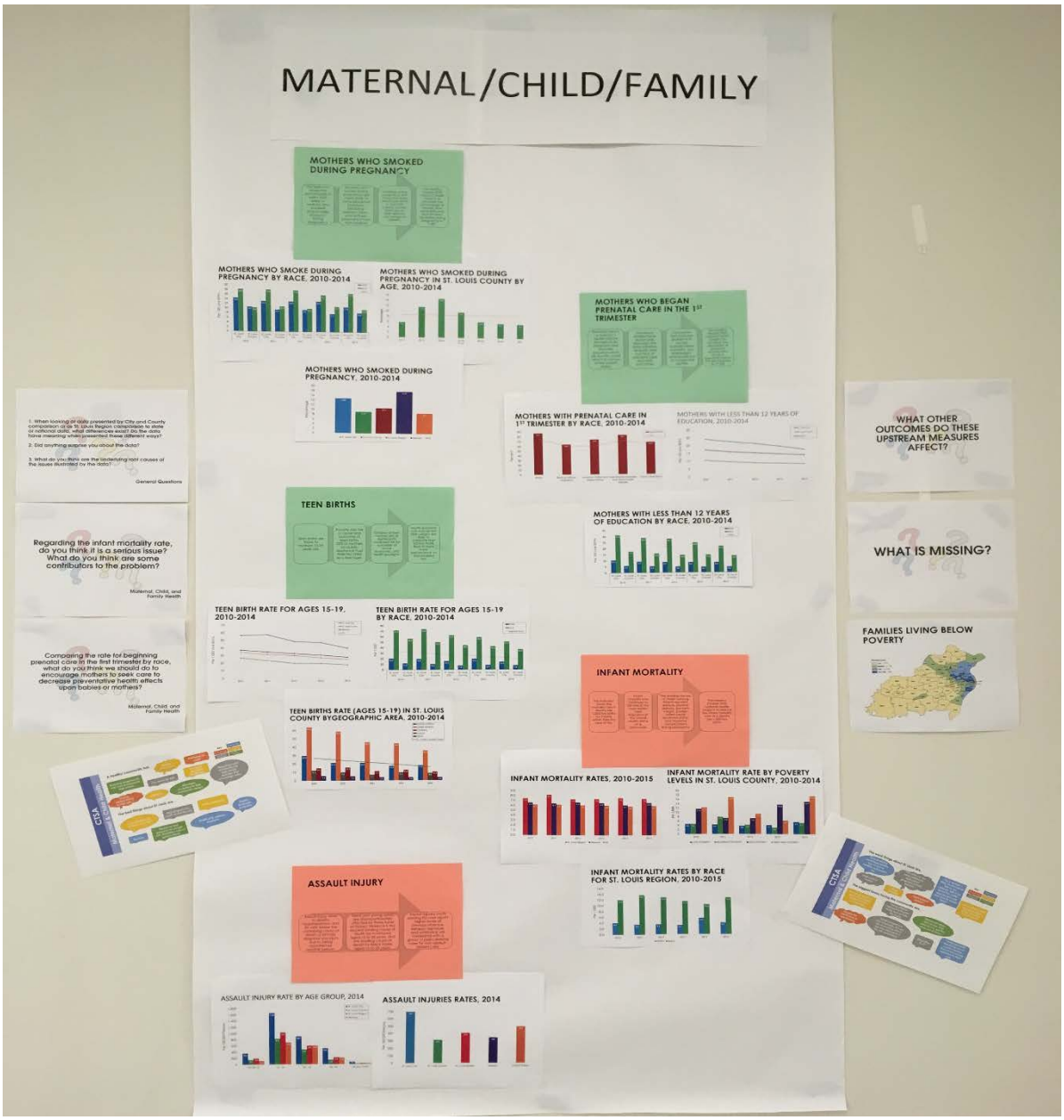
APPENDIX

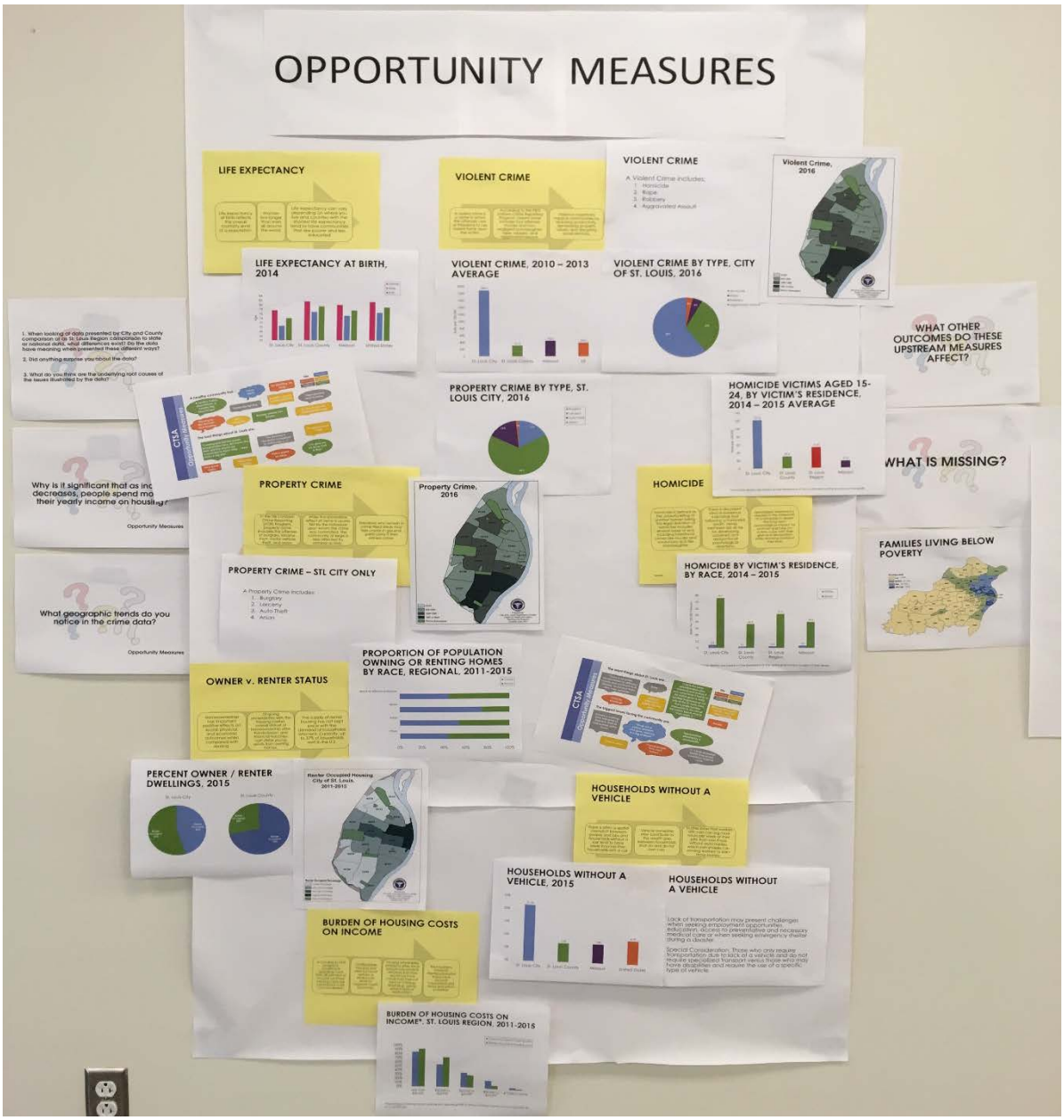






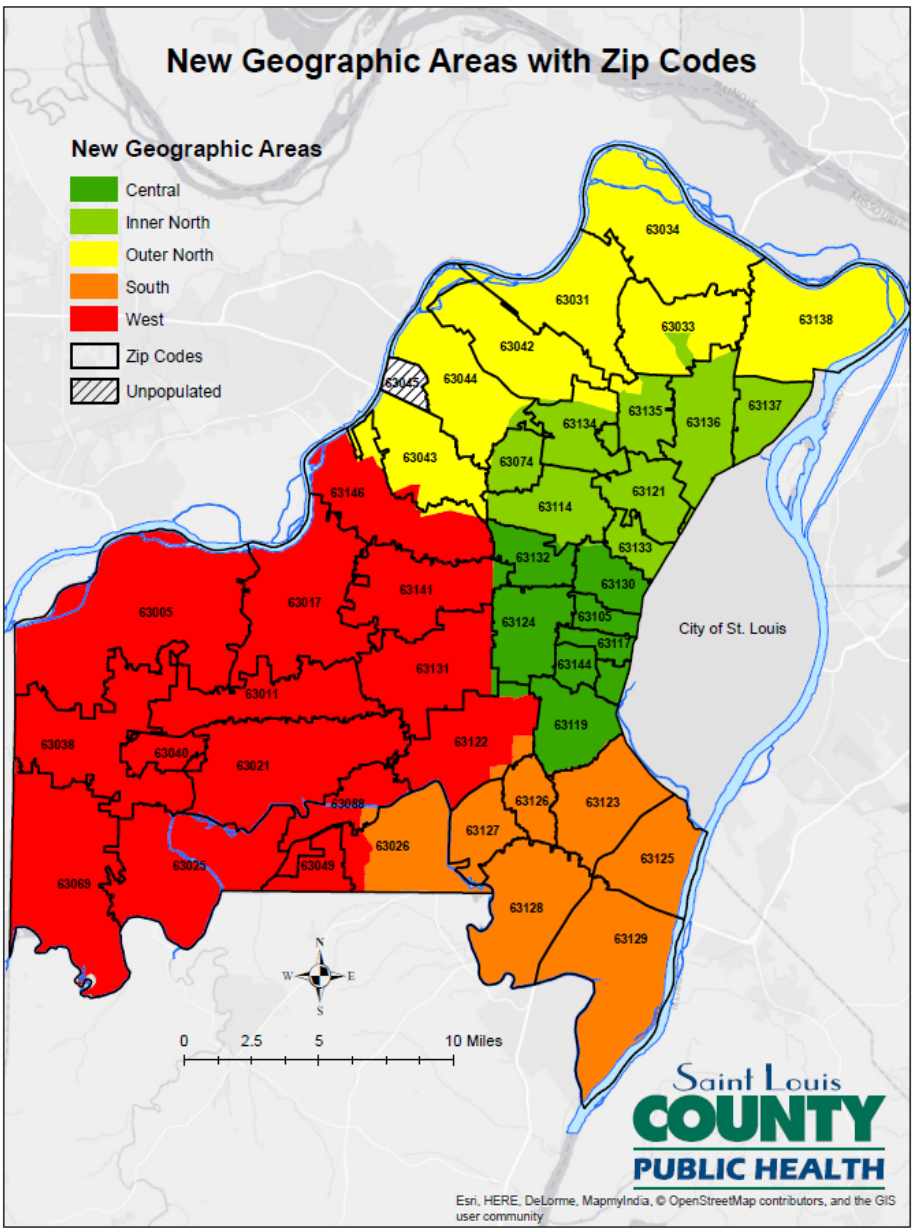






Please refer to the labeled zip code and community map as you review the data included in this report. A common complaint of the 2011 Community Health Needs Assessment was that the four study regions (Mid, North, South, and West) did not accurately reflect how St. Louis County is separated socially and demographically. North County, in particular, has two distinctly different areas within it. In order to address these concerns, the Saint Louis County Department of Public Health aligned new geographic areas with the Department of Planning's five-year Strategic Plan update. These areas were defined based on the 49 ZIP codes within and crossing St. Louis County's borders. ESRI ArcGIS was used to assign each census tract to one of the five survey areas based on having greater than 50 percent of its area falling within a particular survey area. The proportion of the census tracts that crossed into each survey area and was assigned to that area was as follows:

- Central 60.9%
- Inner North 73.6%
- Outer North 71.2%
- South 88.4%
- West 79.2%



Saint Louis Community Themes and Strengths Assessment

November 2017

Prepared by the Illinois Public Health Institute

Table of Contents

Introduction

MAPP Framework

In 2017, the St. Louis Partnership for a Healthy Community conducted a comprehensive regional Community Health Assessment (CHA) using the Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework that assists communities in developing and implementing efforts around the prioritization of public health issues and the identification of resources to address them. The MAPP process, as shown in Figure 1 below, includes four types of assessment to create a more comprehensive picture of the needs and assets in a given community.[1] The community defined for this assessment and planning process is the City of St. Louis and St. Louis County.

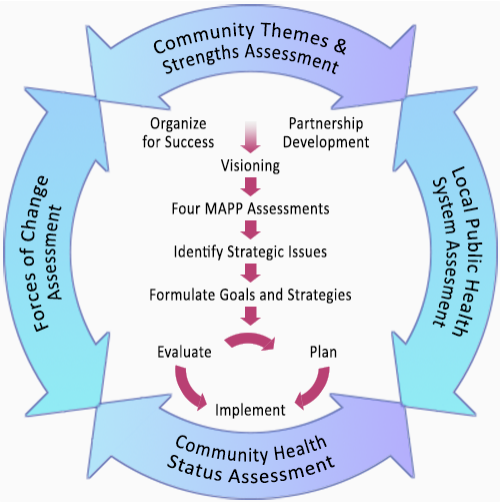


Figure 1: MAPP Process (NACCHO, 2013)

- The **Community Health Status Assessment (CHSA)** provides quantitative information on community health conditions.
- The **Community Themes and Strengths Assessment (CTSA)** identifies assets in the community and issues that are important to community members.
- The **Local Public Health System Assessment (LPHSA)** measures how well different local public health system partners work together to deliver the Essential Public Health Services.
- The **Forces of Change Assessment (FOCA)** identifies forces that may affect a community and the opportunities and threats associated with those forces.

CTSA Overview

Of the four assessments, this report focuses on the findings of the Community Themes and Strengths Assessment (CTSA). The CTSA identifies community thoughts, experiences, opinions, and concerns. It emphasizes the importance of community perspective, with an intentional focus on populations more likely to experience greater health inequities. The impressions and thoughts of community residents help understand issues important to community members and highlight possible solutions and needs from the community member perspective. Finally, the themes and issues raised in the CTSA offer additional insight into the results from the other MAPP assessments.

[1] NACCHO. *Developing a Local Health Department Strategic Plan: A How-To Guide*. 2010.

Executive Summary

The 2017 St. Louis Community Themes and Strengths Assessment (CTSA) identifies community members' thoughts, experiences, opinions, and concerns. The CTSA process was designed with an intentional effort to collect data from populations more likely to experience greater health inequities. The St. Louis Partnership for a Healthy Community (the Partnership) identified existing data collection efforts and the Community Health Advisory Team (CHAT) recommended population groups for listening sessions, resulting in a collaborative process that gathered stakeholder feedback through 14 community listening sessions, 12 focus groups, and 2 surveys (see Figure 2). The themes that emerged from this assessment are summarized below.

Figure 2: CTSA Inputs

Participants were asked questions about their perceptions of health in St. Louis, which fell into 3 general categories:

1. Characteristics of a "healthy community"
2. Community needs, gaps, and barriers to being healthy
3. Community assets and resources that contribute to health

The most frequently cited descriptions of a **healthy community** included factors such as:

- Positive relationships with neighbors and fellow community members
- Welcoming, kind, and supportive community
- Feeling safe inside and outside of the home
- Lack of violent crime, guns, and drugs
- Clean, safe, and well-maintained neighborhoods
- Quality, safe, and affordable housing
- Access to open, green space for recreation and exercise
- Access to healthcare, including behavioral health services
- Residents engage in regular physical activity

Listening session participants discussed several issues impacting health, with the **biggest issues** facing the St. Louis region as:

- Lack of jobs and training opportunities
- Poverty and low income is a barrier to home ownership, services, resources
- Racism and residential segregation
- Inequitable distribution of resources and lack of resources
- High rates of violent crime, gun violence, and drug activity makes the community feel unsafe
- Lack of safe and affordable spaces for young people to learn, socialize, and stay physically active
- Easy access to substances (alcohol, tobacco, prescriptions, illicit drugs) and heavy substance use

When asked about the **strengths and assets** of the St. Louis region that support health, participants identified factors such as:

- Abundance of museums and cultural institutions
- Good schools (though quality varies across the region)
- Recreation and entertainment for children, adults, and families
- Strong neighborhood associations and other community-based organizations (CBOs)
- Region is diverse and multi-cultural
- Plentiful parks and green space (though safety is a concern)
- Relatively low cost of living compared to other urban areas

The findings from the CTSA will be shared with the community groups that participated in data collection, and with the community at large. The CHAT and the Partnership will use the findings from the CTSA, together with the findings from the other MAPP assessments, to identify strategic issues that will be prioritized in the regional Community Health Assessment (CHA). Action Teams will utilize the CTSA findings to inform the development of goals, objectives, and strategies to address priority issues in the Community Health Improvement Plan (CHIP). Other community based organizations or planning partners may utilize the CTSA findings to guide the development of programs, policies, and/or interventions.

Methodology

Data Sources

The St. Louis Partnership for a Healthy Community (herein referred to as "the Partnership") worked with the Community Health Advisory Team (CHAT)[2] to identify population groups for community listening sessions as part of the regional Community Health Assessment (CHA). The Partnership also identified other primary data that had recently been collected or would be collected during the regional CHA process that might align with efforts to understand community perceptions regarding needs, assets, strengths, and potential solutions. The data sources for the 2017 St. Louis CTSA include:

- 10 community listening sessions facilitated by the City of St. Louis Department of Health (DOH), the Saint Louis County Department of Public Health (DPH), and the Illinois Public Health Institute (IPHI)
- 12 focus groups facilitated by DPH
- 4 community listening sessions facilitated by Behavioral Health Network (BHN)
- 2 surveys administered by DOH/DPH

Data collection took place between April 2017 and July 2017. The goal of the listening sessions, focus groups, and surveys was to understand the needs, assets, and potential resources in the St. Louis region and to gather ideas about strategies to improve health. The CTSA findings are an integral component of data in the regional CHA. Leveraging existing data collection was cost effective and efficient in reaching greater community representation and developing stronger partnerships across local public health system partners.

DOH/DPH Community Listening Sessions

DOH, DPH, and IPHI facilitated 10 community listening sessions as part of the regional CHA. Sessions ranged from 45 to 90 minutes and group size ranged from 10 to 23 participants. The questions and topics that were discussed during the listening sessions included the following[3]:

- How do you define a **healthy community**?*
- Now consider children, adolescents and young adults—what defines a **healthy community for young people**? Does this change your definition? How so? What additions or changes would you make?
- What are the **best things** about your community? What things are present in your community that makes it a healthy place to live or improves your quality of life?
- What are some things about your community that are not so great or **need to be improved**? What things are present in your community that makes it hard to be healthy or have the best life you can have?
- Looking over this list of things that need to be improved to be a healthier community, what are the **biggest issues** facing your community?*
- Now consider children, adolescents and young adults—what are the **biggest issues facing these young people** in your community?
- What ideas do you have for **how these issues could be addressed**?
- You have become the leader over this community; what would you do to improve the health and quality of life? What issue would you **prioritize** and **how would you approach it**?

[2] The CHAT is the advisory body for the St. Louis Regional CHA. As of December 2017, the CHAT had representatives from 52 different organizations.
[3] Questions noted with * were asked in all DOH/DPH listening sessions.

- How can the health department best **promote its services** in your community?

The Community Health Advisory Team (CHAT) assisted with participant recruitment, with an intentional approach to include a diverse range of population groups, communities, and service providers. The CHAT identified several groups of individuals as priorities for listening sessions due to their potential understanding and experiences related to health inequities. Organizers specifically sought out participants who identify with or interact with populations such as racial or ethnic minorities, limited English speakers, low-income communities, individuals with disabilities, individuals with mental health or substance use disorders, and seniors.[4] Table 1 lists the listening sessions, including a high level description of the participants.

Table 1: DOH/DPH Community Listening Sessions

Host Organization	*Initials*	*Date*	*Description*
St. Louis Black Pride	BPL	7/18/17	St. Louis Black Pride is a nonprofit that provides programming and advocacy for the St. Louis Metropolitan black and underserved gay, lesbian, bisexual, and transgender community. Listening session members were LGBT individuals participating in a Black Pride Town Hall meeting.
Community Health Advisory Team	CHAT	4/11/17	The CHAT is the advisory body for the regional Community Health Assessment (CHA). In April 2017, this group represented 35 diverse coalitions, organizations, institutions, and governmental agencies that represent some of the many entities who comprise the St. Louis regional public health system.[2] Many of the individuals manage, deliver, or coordinate services to diverse community groups and bring understanding of community context and experiences. At the monthly meeting in April 2017, the CHAT divided into 4 small groups to discuss and respond to the listening session questions.
City Agencies/ Departments	CITY	6/20/17	Staff from a variety of city agencies and departments (Parks and Recreation, Public Safety, Affordable Housing, Water Division, among others) participated in a listening session and presented their perspective as public servants and community members.
Kingdom House	KH	5/23/17	Kingdom House provides a wide variety of social services to low-income individuals and families. Listening session participants were members of a health and wellness program at Kingdom House. Members take exercise classes 4 times per week and stay an additional hour once a week to attend a session related to nutrition, health, or self-care. The group was a mixture of English- and Spanish- speaking women.
Places for People	P4P	6/5/17	Places for People provides programs, services, and

[4] A full list of populations considered for listening session recruitment is in Appendix A.

			resources for people who have serious mental illnesses, typically accompanied by complex and multilayered challenges: chronic homelessness, substance abuse disorder, primary health disorders, and trauma. Listening session members included individuals participating in Places for People programs and/or services.
Paraquad	PQ	7/7/17	Paraquad provides programs and services for people with disabilities, all geared toward the goal of independent living. Listening session members were individuals living with disabilities, advocates for persons living with disabilities, and individuals participating in or providing Paraquad programs and/or services.
Sight and Sound Impaired	SASI	5/20/17	Sight and Sound Impaired (SASI) of St. Louis is a social networking group for deaf and blind individuals, their families, and volunteers. Listening session members were sight and sound impaired individuals who attend SASI meetings.
St. Louis Association of Community Organizations (SLACO)	SLA	7/10/17	SLACO is a coalition of neighborhood associations in the St. Louis metropolitan area. Listening session participants were members of various neighborhood associations in the City of St. Louis that are part of the SLACO network.
Southside Wellness Center	SWC	6/29/17	Southside Wellness Center is an adult day care center. The day programs include social activities, meals and general older adult supervision. Listening session members were older adults that participate in adult day care.
Urban League Save Our Sons (SOS)	UL	7/11/17	The Urban League Save Our Sons (SOS) program offers young African American men job readiness training and connections to local employment opportunities. Listening session members were participants and staff of the SOS program.

BHN Community Listening Sessions

In 2017, the Behavioral Health Network (BHN) conducted a children's behavioral health needs assessment on behalf of the St. Louis Region System of Care and St. Louis Mental Health Board. Their assessment process included primary data collection from two youth and two parent community listening sessions. Group size ranged from 4 to 25, with a total of 48 participants. BHN also worked with the Partnership to coordinate the SLACO listening session (see Table 1). The Partnership and BHN exchanged listening session data to broaden the reach of primary data collection for their respective assessments and to reduce the burden on community members while multiple assessments were conducted. BHN shared findings from the listening sessions conducted as part of the behavioral needs assessment, and likewise, the Partnership shared findings from the DOH/DPH listening sessions conducted as part of the regional CHA.

BHN and the Partnership developed shared questions for the community listening sessions:

- How do you define a **healthy community**?

- Now consider children, adolescents and young adults—what defines a **healthy community for young people**? Does this change your definition? How so? What additions or changes would you make?
- Looking over this list of things that need to be improved to be a healthier community, what are the **biggest issues** facing your community?
- Now consider children, adolescents and young adults—what are the **biggest issues facing these young people** in your community?

Table 3 lists the BHN listening session dates and locations. For the purpose of this assessment, the BHN sessions were aggregated into two data sets, and herein referred to as BHNY for youth sessions and BHNP for parent sessions.

Table 2: BHN Listening Sessions

Group	*Initials*	*Date*	*Location*
Youth Session I	BHNY	5/15/17	Mathews-Dickey Boys' and Girls' Club (Youth Ambassadors for Health)
Youth Session II	BHNY	6/20/17	Thomas Dunn Learning Center (South St. Louis City)
Parent Session I	BHNP	6/20/17	Thomas Dunn Learning Center (South St. Louis City)
Parent Session II	BHNP	6/28/17	Vision for Children at Risk's Project LAUNCH Community Café (North St. Louis City)

DPH Focus Groups

DPH conducted 12 Diabetes Focus Groups (herein referred to as "DFG") as part of the Community Health Worker Regional Planning Group. Survey sites were selected by permission given by members in the planning group and were from YMCA, Esse Health, Mid East Area Agency on Aging, and St. Louis Area Agency on Aging. Those participating were older adults at these sites. Group size ranged from 1 to 30 people, with a total of 149 participants. Table 2 (on the following page) lists the DFG dates and locations. The DFG questions, listed in Appendix D, were developed prior to the DOH/DPH listening session questions, therefore the questions are similar but not identical. DPH developed a summary of the DFG data points related to defining a healthy community and the biggest issues affecting health, for inclusion in the CTSA. While there were 12 separate focus groups, the 12 sets of responses were aggregated into 1 dataset for analysis.

Table 3: DPH Diabetes Focus Groups (DFG)	
Date	*Location*
4/26/17	West County Senior Center
4/27/17	University City Senior Center
5/3/17	Ferguson Senior Center
5/8/17	South County Senior Center
5/10/17	Esse Diabetes Support Group
5/14/17	Bridgeton Senior Center
5/14/17	Monsanto YMCA
5/17/17	Downton YMCA
5/17/17	Five Star Senior Center
5/17/17	APHEA Retirement Apartments
5/18/17	St Luke's Hospital
5/19/17	South County YMCA

DOH/DPH Surveys

In addition to the community listening sessions and focus groups, the Partnership capitalized on opportunities to reach communities through surveys. Table 4 describes the surveys that were administered by DOH and DPH in May and July 2017. Appendix E contains a copy of each survey.

Table 4: DOH/DPH Surveys				
Name	*Initials*	*Date*	*#*	*Description*
Bringing It Together Survey	BITS	5/26/17	28	DOH operated a health booth at the 37th Annual Bringing It Together: Age Out Loud HealthFest at The Muny Opera in Forest Park. The survey was given out to seniors who visited the DOH booth.
Black Pride Survey	BPS	7/18/17	10	St. Louis Black Pride is nonprofit that provides programming and advocacy for the St. Louis Metropolitan black and underserved gay, lesbian, bisexual, and transgender community. The survey was given out to individuals participating in a Black Pride Town Hall meeting.

Framework for Analysis

The qualitative data collected through the listening sessions, focus groups, and surveys were analyzed and coded according to 4 domains: Social and Economic Context, Health Behaviors and Health Outcomes, Access to Care, and Physical Environment. Within each domain are themes and subthemes, described in Table 5. This framework was developed for the 2017 St. Louis CTSA report to present the data in an organized fashion. The domains and themes are based in part on topics that can be found in the County Health Rankings Model and the Healthy People 2020 Social Determinants of Health Model. Further detail on the framework can be found in Appendix D.

Table 5: Framework for Analysis

DOMAIN	*THEME*	*SUBTHEMES*
SOCIAL & ECONOMIC FACTORS	Income & Employment	Business, Economic Development, Employment, Homelessness, Income, Poverty
	Education	Disparity, Early Education, General (Education), High School, Higher Education, Life Skills/Language, Other Institutions
	Family & Social Support	Communication, Families, Identity, Recreation, Role Models, Social Cohesion, Social Services, Spiritual, Support for Youth
	Civic Participation & Politics	Engagement, Government, Regional Planning, Resource Distribution, Race/Ethnicity and Segregation
	Community Safety	Children, Crime, Feeling Safe, Incarceration, Law Enforcement
HEALTH BEHAVIORS & HEALTH OUTCOMES	Health Behaviors	Awareness, Diet, General (Health Behaviors), Physical Activity, Substance Use
	Mental Health Status	Children's Mental Health, General (Mental Health), Mental Health Conditions, Peer Pressure/Bullying
	Health Outcomes	Chronic Disease, Overall Health
	Maternal & Child Health	Infant Mortality, Lead, STDs, Teen Pregnancy
CLINICAL CARE	Access to Care	Behavioral Health Services, Cost of Healthcare, General (Access to Care), Medication, Mobile Health, Providers
	Quality of Care	General (Quality of Care)
PHYSICAL ENVIRONMENT	Food Access	Food Cost, Gardens, General (Food Access), Grocery/Markets, School Food Access
	Built Environment	Accessible, Clean and Safe, Housing, Transportation, Vacancy, Walkability
	Natural Environment	Air Quality, Green Space, Other (Natural Environment), Trash, Water Quality

Findings from the CTSA

The descriptions below represent the broad perceptions and opinions shared by participants in listening sessions, focus groups, and surveys conducted by DOH, DPH, IPHI, and BHN. Where possible, participant statements are substantiated by research and sourced in footnotes. Perception and opinion varied across groups and, where possible, explanations note if the sentiment was reflected across all, most, or some of the groups. Table 6 is a key for the initials used to represent each group. The top issues for each group are detailed in Table 7.

Table 6: Group Initials

Initials	*Group*
BHNP	BHN Parent Listening Sessions
BHNY	BHN Youth Listening Sessions
BITS	Bringing It Together Survey
BPL	St. Louis Black Pride Listening Session
BPS	St. Louis Black Pride Survey
CHAT	Community Health Advisory Team Listening Session
CITY	City Agencies/ Departments Listening Session
DFG	Diabetes Focus Groups
KH	Kingdom House Listening Session
P4P	Places for People Listening Session
PQ	Paraquad Listening Session
SASI	Sight and Sound Impaired Listening Session
SLA	St. Louis Association of Community Organizations Listening Session
SWC	Southside Wellness Center Listening Session
UL	Urban League Save Our Sons Listening Session

How Do You Define a Healthy Community?

Across all groups, participants were asked to describe the characteristics of a healthy community. In the listening sessions, facilitators asked the participants for sensory descriptions to understand what the participants would see, hear, and/or experience in a healthy community. Participant quotes about healthy community are displayed in green call-out boxes.

Healthy Community Quotes

Social & Economic Factors

"A healthy community feels safe, with access to daily resources in walking distance, available activities and entertainment for families."
BPS Participant

According to many respondents, a healthy community has plenty of jobs, including jobs for youth. Participants further elaborated on income and financial stability in a healthy community, noting that members of the community make enough money to support themselves. Vacant buildings are in use and those who need shelter are provided with it. A few respondents described stable neighborhoods and more home ownership as visible signs of a healthy community while other groups described flourishing local businesses and access to services such as clinics, banks, and grocery stores. P4P participants elaborated that affordable shopping is close by in a healthy community.

"A healthy community needs well-developed schools. Extremely well-resourced. The curriculum should be such that the expectations are beyond what we expect of kids now."
UL Participant

Twelve of 15 groups noted a healthy community is well educated and has ample educational opportunities from birth to adulthood. Schools are well resourced and offer quality education for all, regardless of background. UL participants suggested that the academic curriculum have high expectations above and beyond what we expect of children now. BHNP respondents emphasized that early education programs are widely available in a healthy community. Young people are able to obtain guidance on coursework and careers, as well as learn life skills such as financial literacy. CHAT members also mentioned the importance of access to public libraries as an important resource in a healthy community.

"A healthy community has recreation centers for after school, so [children] can learn social skills."
SWC Participant

Services for children and youth were envisioned as an important part of a healthy community. CHAT participants emphasized the importance of parents having affordable and quality childcare options while other groups emphasized safe, clean play areas for children, indoors and outdoors. Some participants expressed the importance of having free or affordable programs in arts, athletics, and other activities for children to pursue outside of school hours. A healthy community also offers programs aimed to help teens and young adults ages 18-25. Several groups noted that healthy communities have involved family members, trusted adults, and role models that can mentor young people and point them to resources.

In a healthy community, there is a high degree of social cohesion; residents trust each other, help each other, look out for one another, have positive interactions, and are generally "good

"I think of people looking after each other. A sense of family or ownership with your neighbors."
CITY Participant

neighbors." The healthy community has a welcoming feeling and people feel supported; BPL participants emphasized solidarity among members of similar population groups. Several groups envisioned positive family environments in a healthy community, including support for fathers; parents valuing their children's perspective and advice; involved adults; and "intact" families. According to several groups, a healthy community has plenty of community centers and activities in the neighborhoods that encourage family unity. Seniors have activities and are not isolated. Further, a healthy community offers spiritual centers and religious institutions for all.

"In a healthy community, kids are playing in the street with each other, not cooped up in the house because it's not safe."
SLA Participant

All groups indicated that a healthy community is safe and crime-free. Residents are not subjected to sex trafficking, homicide, drunk driving, drug dealing, or gun violence. Many groups described a healthy community as one where community members feel a sense of safety inside and outside their homes, such as walking in the park, walking to their vehicles, or walking around the neighborhood. Further, participants envisioned that the streets are well lit and the community provides adequate public safety personnel (e.g. police and fire fighters). Several respondents said a healthy community must have safe spaces for children. P4P participants emphasized that young people must feel safe so they can play outside and go to and from their jobs. Participants in several groups described the characteristics of law enforcement in a healthy community, for example:

- law enforcement personnel and community members have a good relationship;
- law enforcement has a strong presence in the neighborhoods, and officers are out of their cars patrolling on foot or bicycle;
- police are friendly, treat LGBTQ persons respectfully, and community members offer mutual respect for officers; and
- there is "home grown law enforcement that shares the best interests of the community."

"In a healthy community, people are involved with each other and the government."
SASI Participant

Many groups identified a high degree of civic engagement[5] as an important aspect of a healthy community. Specifically, there is good communication among neighbors about local issues to increase inclusivity and understanding. In a healthy community, local government is visible and accessible, and elected officials are held accountable. Participants emphasized that community members know their local representatives and officials and can contact them with problems. Further, respondents noted that community members exercise their civic responsibility by actively participating in elections. CHAT members envisioned a healthy community with empowered community members who are willing and able to advocate for themselves and their needs through neighborhood associations and other advocacy organizations. According to several groups, a healthy community provides spaces to come together to hold public meetings and has abundant resources (financial and otherwise) to address challenges. Several groups commented on race and ethnicity, noting that a healthy community is diverse, respectful across races, and racism is not present.

[5] According to the American Psychological Association (APA), civic engagement is defined as "individual and collective actions designed to identify and address issues of public concern. Civic engagement can take many forms, from individual voluntarism to organizational involvement to electoral participation." Source: http://www.apa.org/education/undergrad/civic-engagement.aspx

Health Behaviors & Health Outcomes

In a healthy community, residents are aware of resources available to them to promote health and wellbeing, and people follow through on health recommendations and treatment plans for their conditions. Several groups envisioned a healthy community where residents have access to exercise programs and gyms, have access to health and wellness programs in their community, and utilize parks and open space on a regular basis for physical activity. In a healthy community, community members prepare and consume healthy food, schools have healthier food options, and young community members choose to eat healthy foods, rather than being forced. BHNP respondents suggested that advertisements in a healthy community promote positive lifestyles and behaviors rather than alcohol or tobacco, and BITS respondents noted that residents abstain from drug use. According to some participants, there is less illness and chronic disease in a healthy community and most people maintain a healthy weight. BHNY participants imagined a healthy community without drunk driving, bullying, depression, suicide, and fewer teen pregnancies. According to KH participants, people in a healthy community are less stressed because they are not "running here and there." BPL respondents noted that a healthy community does not include disproportionate mental illness in the homeless and LGBTQ populations.

Clinical Care

Ten of 15 groups suggested that a healthy community offers access to a wide variety of health care services that are high quality and affordable. A few respondents imagined a healthy community having mobile check-ups for the homeless population, providers that accept both Medicare and Medicaid, and facilities that have fewer financial barriers (e.g. expensive co-pays) and fewer physical barriers (e.g. accessible examination tables). A few groups talked about the importance of access to medication and services for seniors. Several groups imagined universal healthcare as a characteristic of a healthy community. Many groups identified access to mental health and substance use disorder services (herein referred to as behavioral health) as a characteristic of a healthy community. A few groups emphasized the importance of integrated physical and mental health services. PQ participants envisioned a healthy community with accessible counseling and treatment, while BPL respondents described an environment with more mental health providers, less stigma around mental health issues, fewer disparities in diagnosis of mental health issues, and fewer untreated individuals.

Physical Environment

Almost every group (13/15) described a healthy community as one where community members have access to healthy, affordable food in a variety of settings, including: grocery stores, community gardens, senior centers, restaurants, and schools. According to several groups, a healthy community does not have food deserts. UL respondents envisioned a healthy community where there are many options for different types of food (e.g. different cuisines) and more fresh produce. Several groups noted that a healthy community has fewer fast food restaurants and fewer liquor stores.

> *"A healthy community makes vacant buildings usable, so people have a place to go."*
> P4P Participant

Several groups indicated that a healthy community has housing that is affordable, clean, and safe. In a healthy community, vacant buildings are made usable so there are few vacant properties that collect trash or are used for loitering. CITY participants described a healthy community where occupied houses are right-sized and well-maintained, contributing to a "sense of place." Many groups imagined a healthy community with good access to many transportation options and neighborhoods that are walkable and connected by sidewalks. Walking paths, sidewalks, and curbs would be safe, accessible, level, and without obstructions, and streets would be in good repair. The healthy community is well lit and has operable talking street signals for the visually impaired. In a healthy community, mobility is possible by all; PQ participants envisioned that ADA accessibility would be widespread and P4P respondents suggested that programs would offer bus passes to participants.

> *"In a healthy community, everyone keeps their property clean and presentable."*
> BITS Participant

All groups indicated that cleanliness is critical for a healthy community. This includes clean air and water that is free of pollution; clean streets and alleys; proper waste management and regular trash pick-up; well-maintained homes and properties; clean bus stops; recycling; and no stray animals. A few participants envisioned a healthy community as one that tries to use alternate fuel and electricity sources. 10/15 groups said that quality green space, including community gardens, parks, and safe areas for kids to play, are important aspects of a healthy community.

Issues Affecting Health in St. Louis

Some groups were asked to describe the strengths of St. Louis and identify assets in the community that contribute to healthy living. These strengths and assets are captured in the blue text boxes throughout this section. Participant quotes about St. Louis strengths are displayed in blue call-out boxes.

❖ ASSETS

Asset Quotes

Across all groups, participants were asked to describe the biggest issues affecting health in their community, including gaps, barriers, and needs for healthy living. The narrative in this section describes these issues in detail. Participant quotes about issues affecting health in St. Louis are displayed in orange call-out boxes.

Issue Quotes

Social & Economic Factors

"St. Louis has a much lower cost of living."
UL Participant

INCOME & EMPLOYMENT: STRENGTHS AND ASSETS

- ST. LOUIS IS AFFORDABLE COMPARED TO OTHER LARGE URBAN AREAS, ESPECIALLY THE COST OF LIVING IN TERMS OF HOUSING AND TAXES.
- FREE RESOURCES ARE AVAILABLE TO THE COMMUNITY (E.G. CULTURAL INSTITUTIONS).
- THERE ARE SOME AFFORDABLE SHOPPING OPTIONS IN THE COMMUNITY INCLUDING WALGREENS, FAMILY DOLLAR, AND 7-ELEVEN.
- ST. LOUIS IS A HUB FOR BIOTECHNOLOGY AND THERE ARE BUSINESS AND INDUSTRY OPPORTUNITIES FOR GROWTH. THE BUSINESS COMMUNITY IS OPEN TO AND EXCITED FOR NEW, INNOVATIVE IDEAS.
- ST. LOUIS HAS ACCESS TO PHILANTHROPIC AND CORPORATE GIVING, AND SOME PARTS OF THE COMMUNITY ARE VERY WEALTHY.

"Our housing is affordable compared to nationwide, and our gas prices are good."
CITY Participant

Income & Employment

"[We need] training, education, [and] access to resources without a lot of red tape to allow self-mobility."
BPS Participant

According to many groups, the community lacks quality job opportunities and livable wages. People of all ages need better access to job training and job readiness programs. P4P and SWC participants emphasized the need to provide jobs for young people especially, to keep them from becoming involved in illegal activity. BPL respondents identified a need for job training for career transitions and more equitable access to training resources. P4P and SASI participants suggested that high schools need to provide job training and job readiness. CITY respondents noted that training is needed to match skills sets with available work. CITY and CHAT participants suggested that the region needs to reduce company attrition and attract new businesses, which would bring employment opportunities and generate tax revenue.

According to CITY respondents, economic development needs to be coordinated at a regional level to encourage growth. From their perspective, St. Louis has failed to allocate funds and utilize tax incentives

and economic development tools properly. They listed the Edward Jones Dome and the St. Louis Marketplace as examples of public investment that have not delivered an adequate return on investment. Furthermore, the CITY participants reported that when projects do not come to fruition, there are few "claw-back" provisions to protect the taxpayers. Across several groups, participants identified a need for more private investors and public funds to be available and reinvested at the local level. A few respondents noted that communities are pitted against each other to compete for scarce resources. CITY participants observed that media perpetuate negative perceptions and stereotypes of certain areas, which is a barrier to attracting residents and employers.

"When developers fail to fully develop, [and] their projects don't really come to fruition, there aren't the claw back provisions that protect the city and the taxpayers."
CITY Participant

"They want to keep pushing people out. It's not solving a problem. It's pushing them into other communities, it's just displacement."
UL Participant

According to several groups, poverty is prevalent in St. Louis[6] and is at the root of many problems in the community. A few respondents perceived that hopelessness and despair often accompany poverty and lend to the magnitude of social problems. CITY participants observed that many individuals and families living in poverty are focused on day to day existence. KH respondents reported that many people work long hours to support their families, which leaves less time to take care of their health. Several groups noted that lack of income prevents individuals from accessing services. CITY participants noted that low-income housing is concentrated in certain areas and is not available in certain other communities, such as Chesterfield, West County, and St. Charles. UL respondents observed that gentrification[7] is occurring in St. Louis, resulting in displacement of low-income residents. A few groups identified a need for financial independence, wealth building, home ownership, and economic mobility in the community. P4P participants suggested raising the minimum wage.

"If you have someone with mental illness, it can put strain on their ability to create the kind of social support system that people need to live stable lives."
CITY Participant

According to several groups, homelessness is big problem in St. Louis. SLA participants noted that St. Louis has a high number of homeless students.[8] SWC suggested that the community needs to offer more services for the homeless in order to meet their basic needs and to stop the cycle of homelessness, such as opening up facilities for homeless to clean their clothes, take classes, and be social. They also noted that homeless veterans are treated poorly and should have more support. CITY respondents reported that the city has the majority of the homeless population in the region[9], allegedly because the city offers more resources than other places. They perceived that mental illness is a driver for homelessness.

[6] The City of St. Louis has a poverty rate of 28.8% (third in the state behind Mississippi County and Dunklin County). The child poverty rate in City of St. Louis is 42.9%, second only to Shannon County. (Source: 2016 Poverty in Missouri Report from the Missouri Community Action Network)

[7] According to Merriam Webster Dictionary, gentrification is defined as "the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaces poorer residents." Source: https://www.merriam-webster.com/dictionary/gentrification

[8] The City of St. Louis had 5,033 homeless enrolled students in 2014; the second highest number was in Ferguson-Florissant R-II with 1,585. (Source: Missouri Statewide Homelessness Study Report 2015 from the UMSL Public Policy Research Center).

[9] In 2015, the City of St. Louis had the second highest count of homeless persons (1,354) in the state, second only to Kansas City (1,471). In contrast, the surrounding counties had far lower numbers: St. Charles (803) and St. Louis

EDUCATION: STRENGTHS AND ASSETS

- ST. LOUIS HAS GOOD PRIMARY AND SECONDARY SCHOOLS, (PUBLIC, PRIVATE, AND CHARTER), THOUGH QUALITY VARIES ACROSS THE REGION. SOME SCHOOLS HAVE RESOURCES SUCH AS NURSES AND SPEECH THERAPISTS. GIFTED PROGRAMS ARE EXCELLENT.
- HIGHER EDUCATION IS A STRENGTH; THERE ARE HIGHLY REGARDED UNIVERSITIES AND JUNIOR COLLEGES IN THE REGION.
- RESPONDENTS ACROSS MANY GROUPS WERE ENTHUSIASTIC ABOUT THE ABUNDANCE OF MUSEUMS AND CULTURAL INSTITUTIONS IN ST. LOUIS, INCLUDING ART AND HISTORY MUSEUMS, ZOOS, AND A GREAT LIBRARY SYSTEM. ACCESS TO THESE INSTITUTIONS IS FREE OR RELATIVELY AFFORDABLE FOR MOST RESIDENTS.
- THERE ARE PROGRAMS FOR TEACHING ENGLISH AND SOMETIMES STUDENTS CAN GET IN-HOME INSTRUCTION.
- ST. LOUIS HAS RESOURCES FOR SPECIAL EDUCATION, SUCH AS THE ST. LOUIS ARCHDIOCESE SPECIAL SCHOOL DISTRICT AND CENTRAL INSTITUTE FOR THE DEAF.
- WOLFNER LIBRARY HAS EDUCATIONAL PROGRAMS FOR CHILDREN FROM PRE-SCHOOL TO HIGH SCHOOL. THOMAS DUNN LEARNING CENTER IS A VALUABLE RESOURCE FOR CHILDREN.

"St. Louis has a high level of cultural investment and free amenities."
CHAT Participant

"There are a lot of free resources for children here, as long as they can get there."
SLA Participant

Education

"In general, the schools that don't perform well are the neighborhood schools because those are the schools that are stretched too thin."
SLA Participant

A few groups observed that St. Louis has a high degree of educational disparity between city and county. School performance and resources are largely based on location (e.g. property tax base), so many respondents perceived that wealthier areas tend to have better schools. SLA participants observed that public schools must accept all types of students and serving the wide variety of learning and behavioral needs is a challenge for teachers. They also perceived that neighborhood schools tend to have fewer resources and less control over class size compared to magnet or gifted schools. They reported that gifted programs are selective enrollment and have a limited number of seats available. SWC respondents expressed concern that charter schools take high performing students away from the St. Louis Public School System. Some community members perceive that private schools offer a stronger education compared to public schools. BPS respondents agreed that disparity in access to education is a barrier to health. Several groups desired more funding for education. UL participants noted that wages for teachers and classroom aides are low, which they perceived contributes to low teacher retention. CITY respondents reported that the state cut funding to early childhood programs. According to a few respondents, school activities like recess and gym have been reduced. SWC desired more community involvement in the schools.

A few groups pointed out the need for additional formal and informal education options for children, adolescents, and adults, such as training in soft skills/life skills, mentoring/coaching, and education in

County (643). (Source: Missouri Statewide Homelessness Study Report 2015 from the UMSL Public Policy Research Center).

trades. SASI wanted to see more opportunities for youth ages 18-22 who are leaving high school and do not have the finances and/or grades to go to college. P4P respondents suggested that high schools in St. Louis should be more job-oriented and should teach youth to specialize in certain skills. SWC participants perceived that college is not adequately preparing students for the workforce. P4P noted that some college students do not have transportation to school. Further, they indicated that higher education costs have risen and educational debt is increasingly burdensome for young people.

> *"Maybe improve the parks and recreation department, because offering opportunities for young people builds their self-esteem and confidence and social skills."*
> SASI Participant

FAMILY & SOCIAL SUPPORT: STRENGTHS AND ASSETS

- PEOPLE IN ST. LOUIS ARE FRIENDLY AND WILLING TO HELP EACH OTHER OUT. SASI RESPONDENTS NOTED THAT RESIDENTS ARE WILLING TO HELP PEOPLE WITH DISABILITIES AT THE GROCERY STORE OR THE METRO STATION.
- ST. LOUIS HAS SOME FREE RESOURCES AND PROGRAMS FOR YOUTH, INCLUDING BOYS & GIRLS CLUB OF ST. LOUIS; BIG BROTHERS BIG SISTERS; THE PARKS AT JEFFERSON BARRACKS; AND THE FLORISSANT COMMUNITY SWIMMING POOLS.
- CHURCHES ARE A COMMUNITY ASSET.
- THERE ARE A NUMBER OF COMMUNITY-BASED ORGANIZATIONS THAT SUPPORT RESIDENTS, INCLUDING THE SALVATION ARMY, URBAN LEAGUE, PLACES FOR PEOPLE, SOCIETY FOR THE BLIND, THE SERVICE CLUB FOR THE BLIND, AND SIGHT AND SOUND IMPAIRED.
- COMMUNITY MEMBERS HAVE A GREAT DEAL OF HISTORY, TALENT, PRIDE, AND STRONG FAMILY TIES.
- COMMUNITY MEMBERS OF ALL AGES ENJOY MANY SOCIAL EVENTS AND COMMUNITY ACTIVITIES, SUCH AS SPORTS TEAMS, ENTERTAINMENT DISTRICTS, PUBLIC HOLIDAYS AND CELEBRATIONS, FOOD, OUTDOOR MUSIC, AND FAMILY FRIENDLY EVENTS.
- PARAQUAD RESPONDENTS REMARKED ON GOOD RELATIONSHIPS BETWEEN NEIGHBORS AND BUSINESSES.

> *"I really like that the businesses all work together and are very welcoming to lots of different types of people, including people with disabilities."*
> PQ Participant

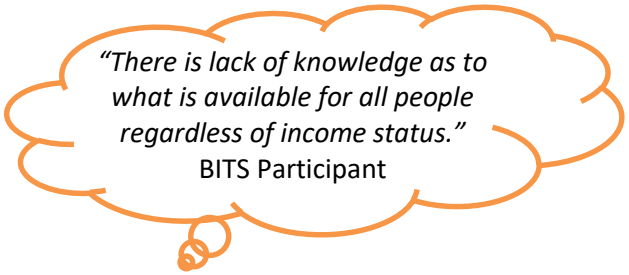
> *"There's a lot of stimulation and a lot of entertainment too. You can never find a day when there's nothing going on."*
> CITY Participant

Family & Social Support

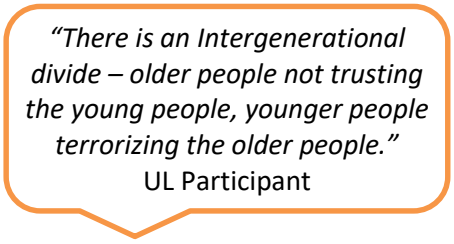
> *"Kids travel really far to play, and they're charging kids $10-15 to play hoop. They need an open gym day."*
> UL Participant

According to UL participants, many children living in poverty grow up with a "survival" mindset, and struggle each day to meet basic needs such as food, shelter, and safety. Several groups noted that poverty and lack of awareness, safety, and transportation are barriers to accessing youth resources and entertainment. Some respondents noted that some children have to travel far to recreation centers and the entry fees can be prohibitively expensive. A few groups believed young people need access to structured activities and/or jobs to keep them physically active and out of trouble (e.g. away from drugs and crime). Several groups suggested adding more community/recreation centers for youth.

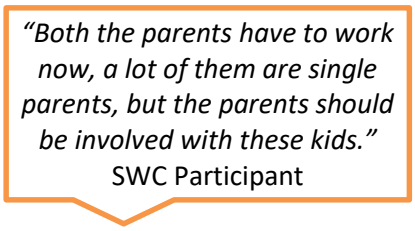
SASI suggested scattering recreation opportunities throughout the city; having churches and other institutions open their facilities to the public for free periods; and keeping public facilities (e.g. swimming pools) open longer.



According to a few groups, there is poor communication about resources available to the community, at the individual level between community members and from the institutional level to the community. BPS respondents noted that stigma, fear, and misinformation are barriers to health. CITY participants noted that service providers and agencies need to better understand the populations in need so they can frame resources to address actual need. SASI respondents suggested that the community should increase awareness about services that are available to people with disabilities (e.g. what public facilities are accessible) through training programs or websites with information. They stressed the importance of allocating funding for communication so that people with disabilities are able to access information. UL participants wanted more awareness of programs like the Urban League Save Our Sons. P4P respondents identified a need for a social safety net, because some "children come to the world sick; they come to us in need of social services automatically."



A few groups noted aspects of social disorder in the community. Some community members do not have positive interactions with their neighbors (e.g. not picking up dog waste; loud music from neighbors). CITY respondents perceived that some people do not feel connected to their communities, and are thus unable to create social support systems. SLA participants suggested that, without stable family support, children might turn to gangs because the gangs "feel like family." UL respondents remarked on the generational disconnect between the elderly and youth.



Several groups observed that the nuclear family structure has changed and it is less common to see a two-parent household. Some respondents noted that teen pregnancy is an issue in the community. SLA participants observed that some young mothers cannot attend school because they cannot obtain affordable childcare. Participants from several groups remarked on parenting gaps and needs, such as a lack of parental involvement in schools; children struggling in school due to adverse home situations; a need for parents to spend more time with their children; parents acting as poor role models; inadequate supervision and discipline of children; and a need to have strong parental involvement in all phases of a child's development.

Civic Participation & Politics: Strengths and Assets

- Some community members are engaged, involved, and mobilized. CITY respondents said that the volunteer system is "plentiful."
- St. Louis has strong neighborhood associations and advocacy groups. PQ participants reported that neighborhood organizations have worked together to make the sidewalks more accessible in the city.
- CITY respondents noted strong neighborhoods on both the north and south side of the city, such as O'Fallon Park, College Hill, Shaw, Tower Grove, and Bevo.
- SASI participants discussed how the visual and hearing-impaired community is civically engaged at the local and state level and is empowered to speak up through advocacy organizations such as Paraquad.
- CHAT respondents noted the strength of the local public health system.
- St. Louis is diverse and multicultural.
- Some respondents think the conversation about racial equity is changing for the better.

> *"The conversation about racial equity is changing, [this is an] opportunity for us to shine."*
> CHAT Participant

> *"St. Louis is a diverse multi-cultural community."*
> UL Participant

Civic Participation & Politics

> *"Our community is still lacking the understanding that we are in this together."*
> BITS Participant

Several groups made observations about lack of engagement from community members. UL participants noted a lack of volunteerism among youth. P4P suggested that community clean up days could improve neighborhood appearance and give children an activity to participate in. Mistrust, poor communication with fellow residents, dogmatic points of view, lack of visibility, voice silencing, and general resistance to change were cited as barriers to working together and achieving collective impact. Individuals living in poverty may have difficulty obtaining identification documents, which SLA respondents perceived as a barrier to voting in local elections. They also noted that felons are disenfranchised. UL participants reported that some residents do not know who their alderman is.

> *"For one thing, I think if the leaders in the city and the people we elect would treat each part of the city the same we wouldn't have all these problems."*
> SWC Participant

Several groups desired more accountability from city officials and more equitable enforcement of laws and provision of services among different city neighborhoods. Respondents also wanted to address perceived corruption and lack of leadership among government officials. CITY respondents perceived a divide between the political mindsets of rural and urban areas of Missouri and claimed that the state government has been tough on urban areas (Jackson County, City of St. Louis, St. Louis County) in terms of resource allocation, directing more resources to the rural areas of the state. A few groups perceived that politics affect how funds are allocated.

> *"Certain districts get tax benefits. Many of the neighborhoods north of Delmar [Avenue] don't get these tax benefits or resources."*
> SLA Participant

Participants identified public programs that lack adequate funding, including public safety, transit, and schools. According to a few groups, community services and resources are inequitably distributed – specifically the north part of the City of St. Louis lacks adequate services and access to tax benefits. UL participants reported that distance is a barrier to accessing amenities and services. CITY respondents noted that the city and county should coordinate the provision of services that affect the entire region for two reasons: 1) if multiple communities provide services, it spreads out the cost burden, and 2) if residents are able to find services nearby, they will be more connected to the communities they live in. P4P participants noted that there should not be a distinction in eligibility for grants and assistance between city and county residents who need help.

> *"We lurch from issue to issue. But no one takes a breath and steps back to say, can we have a 10-, 15-, or 20-year plan that has a number of these interconnected issues?"*
> CITY Participant

According to several groups, St. Louis needs to adopt a regional approach to planning. CHAT participants observed that the region is "geopolitically fragmented" and believed a regional approach would reduce duplication, save money, increase accountability, and give the region a clear strategic direction. SLA respondents remarked on the lack of a cohesive plan or voice for the entire city. CITY participants observed that the St. Louis region lacks a well-thought out, long-term, holistic plan for the future; from their perspective, individual issues are addressed one at a time, usually in reaction to a crisis, without acknowledging how issues are interconnected nor examining the root causes.

> *"You talk about [race] and people get, you know, antsy and don't want to speak, but I think in order to make the city to go forward, you got to know your neighbor, no matter who he or she is."*
> SWC Participant

Ten out of 15 groups identified racism, discrimination, and/or segregation as a major issue in St. Louis. Despite having pockets of high diversity, many respondents agreed that the region is segregated by race, class, income, culture, and physical/mental ability. Several groups noted that segregation and racism exacerbate inequities in access to services, investment, and housing. SASI respondents suggested that more integration will improve empathy because children would be exposed to differences at a younger age. According to the CHAT respondents, more work needs to happen in the area of equity inclusion across race, education, income, employment, and neighborhood. SLA participants noted that the legacy of slavery and structural racism have perpetuated patterns of displacement and alienation among African American communities. SWC respondents remarked that race is "still a touchy subject," and that people would benefit from more interaction with people outside of their race/ethnicity.

COMMUNITY SAFETY: STRENGTHS AND ASSETS

- SOME AREAS OF ST. LOUIS HAVE CALM, QUIET NEIGHBORHOODS THAT ARE PEACEFUL.
- PUBLIC SAFETY ASSETS INCLUDE EMERGENCY SERVICES AND FIRST RESPONDERS; FIRE DEPARTMENTS AND EMS; EMISSIONS TESTING; SECURITY ON TRAINS AND BUSES; AND POLICE ON BIKES.

"They stop the bus randomly now. Police officers get on there to check, make sure everything is ok." P4P Participant

Community Safety

All groups reported that safety is a major concern in the community. Respondents reported that violent crime, gun violence, homicide, theft, drug dealing, and domestic violence occur in the community. SLA participants observed that children are experiencing trauma from child abuse, sexual abuse, and drug use. They said police are called in to the elementary schools frequently. The level of crime is disturbing to some community members; one SASI respondent said "It bothers me to see these kids [I work with] worrying about the gun violence in our community." Many community members feel unsafe and experience fear or anxiety about crime. Respondents from BHNY were concerned with violence among youth and violent deaths within the African American community. A few groups agreed there are not enough safe areas for children to play, socialize, and hang out in the community.

"The crime situation is just totally out of hand." SWC Participant

"[Crime] is a barrier because people don't want to move here when they know there is a high crime rate." SLA Participant

SLA participants noted that crime rates (actual and perceived) are a barrier to people moving to St. Louis. SASI respondents believed that the news sensationalizes gun violence in an unproductive way. UL participants perceived crime as a barrier to accessing healthy food. Respondents perceived that crime was linked to several issues, including the high volume of and easy access to guns; drug abuse; and lack of access to mental health services.

Several groups noted that law enforcement and community members have a poor relationship that stems from racial profiling, lack of cultural competency, and mistrust. BHNY respondents were concerned about police abuse of power and police violence. A few groups desired more training for police officers and first responders, including mental health training. Several respondents suggested that St. Louis needs additional police and/or the police need additional neighborhood patrols. UL participants thought it was important to have more "homegrown policing." SWC participants perceived that the "north side" does not get as much police protection as the "south side." A few respondents said the community needs to develop more trust and respect for law enforcement.

"There is a perspective gap between government and community, with police and how they react to the community and different cultures when doing their job." UL Participant

A few groups discussed incarceration as a health issue. CHAT participants observed that adults with mental illness are often incarcerated as a last resort due to lack of mental health facilities. SLA respondents suggested that zero tolerance policies contribute to youth entering the criminal justice

"If a [formerly incarcerated] person is going to work forty hours a week, how do you expect for them [to take so many classes]?"
P4P Participant

system at a young age (e.g. the school-to-prison pipeline[10]). Likewise, SWC participants noted that more and more juveniles are becoming involved in the justice system. A P4P respondent said there should be more resources to help people who are released from jail or prison to "get back on their feet." They suggested more realistic expectations for formerly incarcerated individuals so they are able to balance mandated class time with the ability to hold a job.

Health Behaviors & Health Outcomes

Health Behaviors: Strengths and Assets

- St. Louis has parks, running tracks, and gyms that can be used for exercise.
- There are health and wellness programs in the community through organizations such as Kingdom House, YMCA, and recreation centers.
- A KH participant described a free program that sent a personal health coach to your home or place of work.
- A CHAT respondent noted that St. Louis hosts walks, runs, and marathons at and around the Jefferson National Expansion Memorial.

"What I like about St. Louis is Forest Park and the Zoo because it's free, it's beautiful, and there are lots of places to walk around."
SASI Participant

Health Behaviors

Respondents described unhealthy habits in the community such poor diet/eating habits, smoking, and inactivity. KH participants observed that many young people have poor diets and snack on chips, soda, fries, etc. at school because "junk food" is easily accessible, cheaper, and more desirable than healthy foods. They also said there is a lot of pressure for kids to smoke cigarettes. A few groups suggested that a barrier to health is lack of awareness and/or lack of motivation to practice healthy habits. DFG participants described several gaps and barriers related to healthy behaviors, including:

"Everything is so fast now. Everything is packaged, so you're not eating healthy. You're just trying to feed your kids and go to bed."
KH Participant

- some seniors do not take advantage of what is available for them, such as health services and exercise programs;
- many people lack information about how to buy and cook healthy food, how to manage chronic conditions, and how to properly take medications;
- information from TV sources is "fragmented"; and
- some people are aware of healthy habits, but still choose to do the opposite, contributing to detrimental health outcomes.

[10] The American Civil Liberties Union (ACLU) defines the school-to-prison pipeline as "a disturbing national trend wherein children are funneled out of public schools and into the juvenile and criminal justice systems. Many of these children have learning disabilities or histories of poverty, abuse, or neglect, and would benefit from additional educational and counseling services. Instead, they are isolated, punished, and pushed out." Source: https://www.aclu.org/issues/juvenile-justice/school-prison-pipeline

DFG participants reported a need for education on the side effects of medication and dangers of mixing medication with alcohol; and the need for children to be taught how to cook healthy food for themselves. A frequently cited barrier to healthy behavior is lack of access to safe and affordable recreation centers and gyms – respondents noted that low-income communities lack these amenities or the cost of admission is prohibitive. Several groups observed that youth stay inside and remain sedentary (playing video games, for example) instead of engaging in physical activity outside because they fear for their safety.

"We don't take health seriously. Black men don't like to go to the doctor. It's expensive too."
UL Participant

A few groups reported that community members do not give enough attention to their health, for various reasons. UL respondents observed a cultural barrier to seeking healthcare because "black men don't like to go to the doctor." They suggested removing stigma among this population to say "it's ok to go to the doctor or the therapist." KH participants reported that lack of time due to demanding work schedules makes it difficult to exercise regularly and to prepare healthy meals. They said that adults working long hours eat fast food because it is quick and convenient. BPS respondents also noted lack of time as a barrier to health.

"Easy access to drugs for young people is more prevalent now. If you don't have anything to do, you have a tendency to go off and do things that are not good for you."
SWC Participant

Many groups observed that drug use is common in St. Louis. CHAT participants identified the heroin epidemic as a problem for St. Louis, and according to a SLA respondent, the "culture of drugs" in St. Louis is unhealthy and alarming. A few participants noted that used hypodermic needles litter the ground in public places (e.g. parks). UL respondents observed that unhealthy products such as drugs and liquor are advertised heavily. They perceived drug use as a contributor to crime and one respondent said "crack cocaine changed the profile of our community." According to several groups, drugs (including prescription drugs) are easily accessible. KH participants observed that illegal drugs are being offered to very young children and participants wanted parents to talk to their children about how to avoid drugs.

Mental Health Status

"Mental health issues are not being addressed."
BPS Participant

Participants described the types of mental health conditions they see in the community such as Post-Traumatic Stress Disorder (PTSD), schizophrenia, Alzheimer's, depression, hopelessness, and poor self-image. Several respondents noted that mental health issues are not being addressed in St. Louis. CITY respondents perceived that untreated mental health conditions are a driver for homelessness and crime. Several groups agreed that there is a lack of understanding about mental health; for example, people may assume an individual with unusual behavior is using drugs but it may be that they have an undiagnosed or untreated mental health condition. SLA respondents observed that parents are not educated on the warning signs of mental illness. SASI participants suggested the need for a "paradigm shift" to acknowledge that "we all have mental health issues." Further, they believed "communication is important because it helps produce good mental health." BHNY participants identified sexual identity as an issue.

SLA participants observed poor mental and physical development among some children in the community. They noted that healthy development is inhibited by use of drugs at a young age, poor nutrition, and lead exposure, and delayed development can contribute to impaired cognition and critical thinking. A few groups reported that children in St. Louis are experiencing high levels of stress, trauma, and depression. Further, SASI participants believed that some children turn to substance use as a coping mechanism for stress. They remarked that children are being deprived of physical activity at school (e.g. recess), which helps relieve stress. According to several groups, young people in the community have trauma and PTSD from exposure to violence inside and outside the home including child abuse, sexual abuse, gun violence, and other crime. BHNP respondents alleged that mental health issues are often over diagnosed in schools in order to get additional funding. From their perspective, children are labeled as having mental health needs because classrooms are unmanageable.

> *"Crime don't discriminate, and you got young babies probably have PTSD already."*
> P4P Participant

> *"Kids feel depressed because they're left out of Snapchat or Instagram."*
> SASI Participant

According to several groups, peer pressure is a big problem for young people. BHNP respondents noted that adults also experience peer pressure related to having money (e.g. displaying expensive clothing labels). Several groups said bullying is a problem. SASI participants remarked that children lack social skills and coping skills to deal with peer pressure and bullying at school and on social media. They emphasized that children need to be taught how to use social media appropriately. Additionally, a few groups noted that the community needs to strengthen youth interpersonal relationships so they are more supportive of one another and are able to resolve conflict.

Health Outcomes

CHAT respondents perceived that overall health in St. Louis is poor and health disparities are prevalent. Several groups described health issues affecting the community, including:

- Obesity (adult and childhood)
- Cancer
- Diabetes
- Alzheimer's disease
- Hypertension
- Heart disease
- High cholesterol
- Lupus
- Chronic arthritis

> *"We're living in a country where we don't have time because of our work. That's why we're overweight, sick, our hearts [are not well]."*
> KH Participant

Maternal & Child Health

> *"Kids need sex ed – taught at home, school, mobile units..."*
> UL Participant

CHAT members identified several issues for the community including high rates of Sexually Transmitted Diseases (STDs), asthma, lead poisoning, and infant mortality. UL participants reported that STDs are a problem and that youth lack adequate sex education. A BITS respondent wrote "healthy sex concerns" as a health issue on their survey.

Clinical Care

> *"[We have] so many good hospitals and clinics and so forth…I wish the health care coverage would match the healthcare that's available."*
> SASI Participant

ACCESS TO CARE: STRENGTHS AND ASSETS

- ST. LOUIS IS HOME TO MANY HOSPITALS, AND THERE ARE SOME FREE CLINICS IN THE COMMUNITY.

Access to Care

> *"On the southern part of the city, on the west part of the city, you have urgent care centers all over the place. You go to northern part of the city, you might have one or maybe two."*
> SWC Participant

Several groups observed that healthcare, health insurance, and medications are difficult to access in certain areas and for certain populations (e.g. seniors). SWC participants perceived a lack of adequate healthcare and other health services in the northern part of the City of St. Louis, and observed that there are more urgent care centers in the south and west part of town. They also reported that dental services are not provided for seniors. A few groups suggested that residents need access to mobile healthcare and education (e.g. health care vans that go into the community). DFG participants emphasized the high cost of medication and observed that many seniors in St. Louis are unaware of services available to them. Several groups reported that some residents cannot afford insurance or do not have enough money to pay for medical care even if they have insurance. SWC participants reported that poor people or those without insurance are often denied care, disapproved for health insurance coverage benefits, and that the wait time could be 2-3 months while the provider investigates one's ability to pay. PQ respondents observed that the disparities in reimbursement rates limits access to a larger pool of providers and noted the high cost of wheelchairs and limited insurance coverage for wheelchairs. SASI participants suggested that people with disabilities would benefit from supportive services such as transportation and assistance with doctor's visits.

> *"It's very hard to find [providers] who feel capable and confident working with [patients] with developmental disabilities."*
> PQ Participant

Several groups observed that St. Louis has a severe shortage of mental health and substance use disorder services to address behavioral health needs. UL participants reported that treatment centers are being closed - inpatient treatment at the Salvation Army has stopped and a clinic at a local community center closed. CITY respondents noted that if a patient needs inpatient services, there is nowhere to send them, even if the treatment is court mandated. Lack of insurance, stigma around asking for help, lack of trust, and fear of being placed in the mental health system were cited as barriers to accessing behavioral health services. A few groups identified a need to improve screening, diagnosis, early intervention, and case management for youth. SLA participants believed that follow up for violence and trauma is insufficient, and that schools need more full time counselors, nurses, and trauma teams. A SASI respondent desired more opportunities for

children to learn stress reduction techniques at school (e.g. stress coping workshops) and a BPS respondent suggested teaching "mindfulness meditation to build psychological resilience."

QUALITY OF CARE: STRENGTHS AND ASSETS

- ST. LOUIS HAS HIGH QUALITY HEALTHCARE - INCLUDING "WORLD-CLASS MEDICAL CARE," "TOP-NAME, EXCELLENT MEDICAL FACILITIES," "GOOD MEDICAL UNIVERSITIES," AND GOOD DOCTORS, CLINICS, FQHCS, AND OTHER TYPES OF PROVIDERS.

"We have top-name, excellent medical facilities."
CITY Participant

Quality of Care

"Doctors help, but doctors are not helping us to be healthy holistically. They give us too much medicine."
KH Participant

SASI respondents desired more training for hospital staff, police, fire, EMT, and other service providers (e.g. bank tellers, bus drivers, cab drivers) for how to interact with persons who are deaf or blind. A SASI respondent also noted problems with LogistiCare, a company that works with state governments and managed care organizations to provide transportation and integrated health services. KH participants perceived that physicians are overprescribing medication instead of finding other ways to treat and manage conditions, such as coaching on nutrition and healthy cooking. Some BPL respondents noted negative experiences with case managers and social workers when applying for benefits like SNAP and observed that the social services buildings were outdated and not inviting. They suggested more cultural competency training for social service providers.

Physical Environment

FOOD ACCESS: STRENGTHS AND ASSETS

- ST. LOUIS HAS SEVERAL FOOD PROGRAMS (E.G. AT SCHOOLS AND SUMMER CAMPS), AS WELL AS FARMER'S MARKETS AND GARDENS FOR FRESH PRODUCE.

"The Farmer's Market is helpful especially in summer."
DFG Participant

Food Access

Ten out of 15 groups described food access issues in St. Louis including lack of access to fresh fruit and vegetables for low-income individuals and families; differences in food quality depending on neighborhood; a lack of neighborhood grocery stores; and too many fast food restaurants. A frequently cited barrier to accessing healthy food is the cost, especially relative to less healthy options. UL participants also reported crime and lack of transportation as barriers to accessing healthy food. A few groups observed that schools do not serve healthy food. Respondents identified several needs related to food including healthier options at fast

"If you can't afford to buy healthy foods on a regular basis, you're going to eat what you can afford to eat, and 9 times out of 10 that's not going to be healthy for you."
PQ Participant

food restaurants, additional community gardens and farmer's markets, and exposure to healthy foods at a young age. A few groups observed food insecurity and hunger in specific populations, such as low-income families, children, and the elderly.

BUILT ENVIRONMENT: STRENGTHS AND ASSETS

- A P4P PARTICIPANT NOTED THAT SOME NEIGHBORHOODS, LIKE MAPLEWOOD, HAVE AMENITIES WITHIN WALKING DISTANCE.
- THERE IS SOME AFFORDABLE HOUSING BUT IT IS CONCENTRATED IN CERTAIN AREAS.
- THE TRANSPORTATION SYSTEM IS A STRENGTH, THOUGH ACCESS AND QUALITY VARIES ACROSS THE REGION.
- P4P RESPONDENTS LAUDED THE METRO SYSTEM, AND NOTED THAT THEY NO LONGER GIVE CITATIONS FOR NOT HAVING A BUS/METRO TICKET, WHICH IS BENEFICIAL FOR PEOPLE THAT CANNOT AFFORD TO PAY COURT FEES. THEY ALSO NOTED THERE IS MORE FREQUENT POLICE PRESENCE ON THE BUS SYSTEM.
- SASI PARTICIPANTS THOUGHT IT WAS POSITIVE THAT THE TRAIN CONNECTS TO THE AIRPORT. THEY ALSO REPORTED THAT PEOPLE WITH DISABILITIES CAN USE THE "CALL A RIDE" SERVICE, WHICH GREATLY INCREASES INDEPENDENCE.

"It doesn't take long to get from point A to point B. [We have the] Metro."
SWC Participant

"Thank God for Call a Ride, so some of us in this room have some freedom [to go out]."
SASI Participant

Built Environment

"St. Louis is behind in advancing and building infrastructure."
CHAT Participant

According to several groups, some areas have a poor built environment, such as hazardous sidewalks and ramps, low-hanging tree branches, and low-lit areas. Broken sidewalks and damaged streets create danger for pedestrians. SASI respondents noted that Kirkwood in particular has problems with overgrown tree limbs and tripping hazards. Several groups identified vacant housing and vacant lots as a big problem in St. Louis – vacant buildings and lots host illegal activity, trash, and animals. UL participants suggested repurposing vacant properties for community use.

A few groups reported that lack of physical accessibility in parts of the city diminishes the ability to live a healthy and independent life. SLA respondents observed that the elderly become isolated when they lose mobility. DFG participants said that falling is an issue for older residents. SASI respondents reported a lack of talking traffic signals for hearing and sight impaired residents. PQ participants noted that ADA-related home improvements are expensive for residents to afford; there is a lack of housing that meets ADA regulations; and ADA housing is not on public transportation routes.

"Lack of physical accessibility in general in parts of the city impacts a lot of people's ability to live a healthy life."
CITY Participant

Several groups made observations about housing quality, including a limited amount of quality affordable housing stock, issues with "slumlords" that own rental properties, and lead paint in homes. PQ respondents were concerned about the tendency to concentrate accessible housing into certain

> *"The disability-centered buildings that are [funded] by the city and state - I find them to be isolating. It's very* 1984*."*
> PQ Participant

apartment buildings that are segregated from the rest of the community, rather than integrating accessible housing throughout the community. PQ participants reported that this practice contributes to a sense of isolation for individuals with disabilities.

Several groups reported that certain areas lack access to public transportation, including St. Charles County, Jefferson County, and St. Louis County. According to CHAT respondents, poor street conditions and bad infrastructure (location of tracks, no major hub for airport, car infrastructure) hinder easy travel. SASI participants reported that transportation can be expensive and recommended the use of taxi vouchers for people with disabilities. According to CHAT respondents, there is a lack of state funding for transit.

NATURAL ENVIRONMENT: STRENGTHS AND ASSETS

- WATER IS ABUNDANT AND HIGH QUALITY IN ST. LOUIS.
- A CHAT PARTICIPANT APPRECIATED HAVING 4 SEASONS.
- ST. LOUIS HAS GREEN SPACES FOR WALKING AND RECREATION, INCLUDING FOREST PARK, THE BOTANICAL GARDEN, AND THE ZOO.
- A BPL RESPONDENT IDENTIFIED LOCAL ECOSYSTEMS AND LOVE BANK PARK AS AN ASSET.

> *"We have an abundance of water. We're at the confluence of the two greatest rivers in the United States."*
> CITY Participant

Natural Environment

> *"Bridgeton landfill smells like raw sewage when you are closer to it."*
> DFG Participant

Participants reported that poor air quality and air pollution in the environment contribute to health issues such as asthma. A few respondents identified loose/wild animals as a threat to community members. Many groups reported that trash and illegal dumping is a big problem because it challenges the sense of space and community; attracts rodents and pests; and lowers property values. SWC respondents perceived that the north side of the city does not receive the same clean-up services as other areas. DFG participants reported many concerns related to the natural environment, including water quality; contaminated rivers (Moline Creek); noxious odor from the Bridgeton landfill; storms that cause power outages and damage from falling tree limbs; flooding; and mosquitos breeding easily in standing water. BHNY participants were concerned about global warming and pollution.

Special Populations

In select DOH/DPH listening sessions, participants were asked to identify particular groups of people that are more vulnerable than others or have unique needs that should be addressed. Respondents identified the following "special populations":

- Low-income communities
- Immigrant communities and/or refugees
- Individuals with disabilities and/or special needs
- Youth/Teens
- Single parent homes
- LGBTQIA
- Homeless
- Seniors/Elderly
- African Americans
- Individuals with mental illness and/or addiction
- North City/North County
- Previously incarcerated
- Other (Sex workers; Women; Minorities; Veterans)

Recommended Solutions

In select DOH/DPH listening sessions[11], participants were asked to provide solutions for the biggest issues affecting health in the community. Participants were prompted to identify priority issues and to share potential solutions for addressing the issues. The individual comments regarding potential solutions are summarized below by theme. The ideas for solutions were not consensus-based recommendations or discussed in-depth by participants to explore which solutions might be most effective or how the solutions might be implemented. For more information on the solutions and strategies framework, please see Appendix H.

Address social determinants of health as root causes of health

EDUCATION AND COUNSELING
Invest in programs and policies that support positive family environments.
Develop education and campaigns to teach people about the health risks of littering and illegal dumping, and what services are available to combat the problem, such as the "Teen Sweep" program to clean up the neighborhoods.
Provide more volunteer opportunities (e.g. community clean-up days) and encourage community members (especially young people) to volunteer.
Improve voter turnout and increase voter education on issues.
Encourage community members to speak with local and state legislators about community needs
Provide role models and mentors, including peer to peer mentoring, especially among youth.
Be cautious of stigma created by moving to alternative schools.
Encourage young people to consider career paths outside of professional sports.
Provide young people more opportunities to learn life skills and other non-academic skills.
Re-train the workforce to meet the needs of new industries, such as service and technology.
Support organizations that assist with job readiness, job searching, preparing resumes, and exploring career paths.
Reduce stigma towards employment in trades (plumbing, electrical, etc.).

[11] Solutions were solicited from these 10 groups: BPL, CHAT, CITY, KH, P4P, PQ, SASI, SLA, SWC, UL.

Encourage entrepreneurship and small business ownership.
Promote religious study and spiritual mentorship (e.g. mentoring through members of congregation or youth pastors).
CLINICAL INTERVENTIONS
N/A
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
Improve oversight of teachers to ensure high quality instruction.
CHANGING THE CONTEXT
Develop a standardized curriculum [in schools].
Seek corporate sponsorship to address poverty and other social/structural determinants of health.
Consider accessibility in planning and building regulations.
Improve affordability and reliability [of transit options].
SOCIAL DETERMINANTS OF HEALTH
Encourage communication between neighbors and develop community champions
Host fun community events (e.g. sporting events, block parties, etc.) to encourage positive neighbor interaction, especially among different races and ethnicities
Increase the number of local attractions and entertainment.
Create more public transit options and
Provide more accessible public transportation to outlying areas.
Improve travel safety to and from school.
Provide more affordable housing options.
Provide funding for homeowners to complete ADA modifications.
Buildings constructed using Federal Tax Credits should be required to have ADA units set aside.
Reduce company tax breaks and redirect funds into education.
Consider alternative funding mechanisms for education.
Repeal “No Child Left Behind” and replace with better federal policy.
Address behavioral health resources at the national level
Reduce overall stress levels.
Utilize economic development incentives such as Tax Increment Financing (TIF).
Improve access to quality education, job training (including technical and vocational training), and job fairs.
Increase employment opportunities and provide workers with living wages.
Increase the minimum wage.
Banks that own foreclosed properties maintain lawns to avoid fines, but the banks should be responsible for more maintenance.

Eliminate disparities in health and promote racial equity

EDUCATION AND COUNSELING
Encourage mentors to develop communication skills to connect cultural and generational gaps.
Host intergenerational events, such as card games with young people and older adults.
Host more black events and intergenerational events/clubs.
Improve discourse on race and ethnicity by teaching young children about discrimination, talking to each

other, and learning to hold persons accountable for offensive comments or remarks.
Encourage funders to prioritize regional approaches to equity.
Advocate for equity and fair allocation of resources.
CLINICAL INTERVENTIONS
N/A
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
N/A
CHANGING THE CONTEXT
Support equitable policies and Health in All Policies initiatives.
Improve access to technology for people with disabilities.
SOCIAL DETERMINANTS OF HEALTH
Merge the city and county to provide more a more equitable tax base to fund schools.
Increase home ownership to increase the local tax base that funds education.
Improve access to education early in life to prevent future disparities.
Improve teacher pay and equalize pay between city and county teachers.
Require profits to be reinvested in local communities, via “neighborhood tax.”
Reallocate funds to neighborhoods (not only to downtown).
Provide funding to get rid of vacant buildings and replace with something useful to the community, like community gardens.
Reduce employer stigma against felony records.
Allow ex-felons to vote once they have served their sentence.

Improve the local public health system to address collective needs

EDUCATION AND COUNSELING
Provide data to the community to help inform decisions.
Develop effective dissemination of information to the community about programs that are already available (e.g. financial literacy classes at the Treasurer’s Office).
Look to communication channels above and beyond email distribution.
Provide more public service announcements.
Provide committed time to listen to each other and talk about local issues.
Develop a regional message that resonates with decision makers to drive collaboration and coordination (e.g. 24:1 initiative).
[Encourage] broad-based participation [across sectors] including local government, public schools, business owners, legislators, and churches.
Put more social workers on the ground to do outreach, connect people to resources, and establish trust.
Improve awareness of local vacancy mitigation programs like “Mow to Own” and the “Dollar Lot Program.”
Teach people how to use social media appropriately.
CLINICAL INTERVENTIONS
Support trauma-informed care (e.g. Alive and Well STL initiative).

LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
Develop a comprehensive, cohesive, inclusive regional plan with clear direction. Look to other cities for examples of successful initiatives.
Commit to achieving change through the CHNA.
Evaluate the effectiveness of programs and make changes if needed.
CHANGING THE CONTEXT
Provide more monitoring (e.g. cameras) and enforcement of illegal dumping violations.
Adopt a regional focus for planning and decision-making
Invest more resources in the Trash Task Force.
SOCIAL DETERMINANTS OF HEALTH
The state should collect a uniform tax to fund education and divide the funds equally based on the number of students.
Change the property tax system to prevent tax delinquency.
Hold legislators accountable.
Adopt a regional approach to economic development to reduce competition between city and county for the same resources.
Bring more employers to St. Louis and create more jobs.
Provide a clearing house (like the Citizens' Service Bureau) to coordinate poverty efforts.

Access to care and social services

EDUCATION AND COUNSELING
Support advocacy efforts to improve access to care.
Improve awareness among community members about health clinic locations and services.
CLINICAL INTERVENTIONS
Provide good doctors, facilities, and equipment.
Reduce provider overreliance on prescription medication to treat health conditions.
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
Provide weekly or monthly free clinics.
Utilize programs like "AmeriCorps" to disperse providers around the country.
Consider alternative health care models (e.g. single payer health system) from other countries.
CHANGING THE CONTEXT
N/A
SOCIAL DETERMINANTS OF HEALTH
Improve access to safety net services, such as disability insurance, life insurance, rental insurance, and programs to help people who become ill, lose their jobs, or lose their homes.
Create shelters for homeless individuals.
Develop a more affordable co-pay system or sliding scale for health care.

Behavioral health

EDUCATION AND COUNSELING
Reduce stigma associated with behavioral health services and treatment.
Provide more education to parents and stakeholders about mental health issues in children.
CLINICAL INTERVENTIONS
Ensure proper diagnosis of behavioral health conditions and support adherence to treatment.
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
Formally assess the behavioral health needs of the community (e.g. lack of medication, therapy services, inpatient programs, long term care needs, etc.)
Diagnose behavioral health conditions earlier – perhaps through screening at schools
CHANGING THE CONTEXT
Legalize marijuana for medical use.
SOCIAL DETERMINANTS OF HEALTH
Increase affordability of behavioral health care for low-income individuals.
Create rehabilitation recreation centers and safe areas for children.

Chronic disease prevention and management

EDUCATION AND COUNSELING
Provide more information for parents so they can make good decisions for their families. Parents should expose children to fruits and vegetables at a young age.
Provide more information on proper nutrition and healthy cooking, especially to young people.
Provide more health and wellness programs (e.g., Kingdom House) for adults and children.
Provide encouragement and motivation to increase healthy eating and physical activity.
Utilize incentive system or game-design elements to restrict the consumption of unhealthy food to a minimum level.
CLINICAL INTERVENTIONS
N/A
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
N/A
CHANGING THE CONTEXT
Bring population health and prevention framework outside hospital walls to broaden the perspectives of elected officials.
Close or ban fast food restaurants, and open “homemade food” restaurants.
SOCIAL DETERMINANTS OF HEALTH
Improve affordability of healthy foods.
Reduce hunger among students so they can perform better in school.
Improve physical accessibility of sidewalks (e.g. ensure trees are pruned, sidewalks are level).

Violence prevention

EDUCATION AND COUNSELING

Improve law enforcement training to include conflict resolution and de-escalation.
Provide reentry support for people to adjust to life outside of prison or jail.
Encourage community members to report crime
CLINICAL INTERVENTIONS
N/A
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
Improve law enforcement hiring practices: hire [law enforcement] locally, improve psychological profiling, and enhance requirements for appointed positions.
Hire more police officers for neighborhood patrols.
CHANGING THE CONTEXT
Legalize drugs (marijuana) to reduce drug dealing and associated criminal activity.
Create tougher laws to fight crime.
Improve relations between police and citizens. Community policing should move from adversarial to engagement.
Reduce improper use of firearms (by citizens and law enforcement).
SOCIAL DETERMINANTS OF HEALTH
Strengthen community engagement. Encourage neighborhood watches, porch sitting, and “eyes on the street.”

Maternal, child, family, and sexual health

EDUCATION AND COUNSELING
Address teen pregnancy: bring parents back into teenager’s lives, teach sex education and how to properly use a condom.
Provide more parenting classes, both as a deterrent for teens who are sexually active and to help prepare teens who are expecting a child.
CLINICAL INTERVENTIONS
N/A
LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS
N/A
CHANGING THE CONTEXT
Increase the number of environments where young people obtain sex education, including at home, in school, and via mobile health units.
SOCIAL DETERMINANTS OF HEALTH
N/A

Communication from the Health Department

In select DOH/DPH listening sessions, participants were asked how the health department can best promote its services in the community. The participants identified the following promotion methods:

- Direct mailing
- Television/radio advertising and programming (e.g. Public Service Announcements (PSAs))
- Community forums and events in the neighborhood (churches, CBOs, retail stores, etc.)
- Provide newsletters and fliers to display at neighborhood organizations (e.g. senior centers)
- Community ambassadors
- Text messaging
- Social media
- Sponsorship from businesses and community organizations

Conclusion

Community members were asked questions about their perceptions of health in St. Louis, which fell into 3 general categories: 1) Characteristics of a "healthy community"; 2) Community needs, gaps, and barriers to being healthy; and 3) Community assets and resources that contribute to health. Participant responses touched on a wide variety of issues related to health and quality of living. Recurring themes surfaced across the groups, which are summarized in the bullets below.

The most frequently cited descriptions of a **healthy community** included factors such as:

- Positive relationships with neighbors and fellow community members
- Welcoming, kind, and supportive community
- Feeling safe inside and outside of the home
- Lack of violent crime, guns, and drugs
- Clean, safe, and well-maintained neighborhoods
- Quality, safe, and affordable housing
- Access to open, green space for recreation and exercise
- Access to healthcare, including behavioral health services
- Residents engage in regular physical activity

Listening session participants discussed several issues impacting health, with the **biggest issues** facing the St. Louis region as:

- Lack of jobs and training opportunities
- Poverty and low income is a barrier to home ownership, services, resources
- Racism and residential segregation
- Inequitable distribution of resources and lack of resources
- High rates of violent crime, gun violence, and drug activity makes the community feel unsafe
- Lack of safe and affordable spaces for young people to learn, socialize, and stay physically active
- Easy access to substances (alcohol, tobacco, prescriptions, illicit drugs) and heavy substance use

When asked about the **strengths and assets** of the St. Louis region that support health, participants identified factors such as:

- Abundance of museums and cultural institutions
- Good schools (though quality varies across the region)
- Recreation and entertainment for children, adults, and families
- Strong neighborhood associations and other community-based organizations (CBOs)
- Region is diverse and multi-cultural
- Plentiful parks and green space (though safety is a concern)
- Relatively low cost of living compared to other urban areas

Many groups across the St. Louis region touched on the common themes listed above. Table 7 summarizes the top issues by each group. These are topics that surfaced repeatedly in participant responses, and do not necessarily represent group consensus on the top issues.

Table 7: Top Issues by Group

	A healthy community has/is…	The needs, gaps, and barriers to being healthy include…	My community assets and resources include…[12]
Behavioral Health Network (Adults)	Lack of crime	Peer pressure and bullying	n/a
Behavioral Health Network (Youth)	Lack of crime	Violent crime	n/a
Bringing It Together Survey	Social cohesion	Violent crime	n/a
St. Louis Black Pride Listening Session	Positive citizen-law enforcement relations	Lack of behavioral health resources	Changing racial climate
St. Louis Black Pride Survey	Access to healthcare	Unaffordable	Community-based organizations
Community Health Advisory Team	Quality green space	Racism and segregation	Diversity
City Agencies/ Departments	Quality housing	Poverty	Green space
Diabetes Focus Groups	Social cohesion	Chronic disease	n/a
Kingdom House	Healthy diets	Substance use	Health and wellness programs
Places for People	Lack of crime	Low income	Public transit
Paraquad	Access to healthcare	Lack of accessible housing	Neighborhood organizations
Sight and Sound Impaired	Good governance	Lack of support for youth	Transportation

[12] "N/A" indicates that the group was not asked about assets and resources.

St. Louis Association of Community Organizations (SLACO)	Support for families and children	Educational disparities	Educational resources
Southside Wellness Center	Clean and safe	Cost of healthcare	Cost of living
Urban League Save Our Sons (SOS)	Support for youth	Lack of support for youth	Social service organizations

The findings from the CTSA will be shared with the community groups that participated in data collection, and with the community at large. The CHAT and the Partnership will use the findings from the CTSA, together with the findings from the other MAPP assessments, to identify strategic issues that will be prioritized in the regional Community Health Assessment (CHA). Action Teams will utilize the CTSA findings to inform the development of goals, objectives, and strategies to address priority issues in the Community Health Improvement Plan (CHIP). Other community based organizations or planning partners may utilize the CTSA findings to guide the development of programs, policies, and/or interventions.

Appendix A: Populations Prioritized for Listening Session Recruitment

The Community Health Advisory Team (CHAT) assisted with participant recruitment, with an intentional approach to include a diverse range of population groups, communities, and service providers. The CHAT identified several groups of individuals as priority for listening sessions due to their potential understanding and experiences related to health inequities. Table A lists the populations and sub-populations identified by the CHAT. Organizers specifically sought out participants who identify with or interact with populations such as racial or ethnic minorities, limited English speakers, low-income communities, individuals with disabilities, individuals with mental health or substance use disorders, and seniors.

Table A: Populations Prioritized for Listening Session Recruitment

Populations	Sub-Populations
Ethnic or racial minorities including undocumented individuals	• African Americans • African American men • Bosnians • Latino/Latinas • Asians • Undocumented immigrants • Immigrant/refugee • Especially those with limited access to care
Youth and/or students	• Particularly African American males • Teen mothers • College students- especially those in community college • High risk/ in-risk youth
Seniors and older adults	• Retirees • Elderly • Good chronic disease candidates
Individuals with mental illness	• End users of behavioral health services
Individuals with disability	• Physically or developmentally challenged • Individuals with disabilities and veterans
Homeless individuals	• Formerly or currently homeless • Couch surfing • Homeless teenagers • Homeless veterans • Homeless mentally ill individuals
LGBT individuals	• Transgender
Caregivers	• Caregivers and lay health providers • Parents
Individuals with chronic disease	• Obese adults
Staff of the community organizations that serve communities with health disparities	
Low-income individuals	• Young adults • Unemployed • Working poor who can't afford healthcare • Population on Missouri Medicaid • Families, parents

	• Individuals on Medicaid
Veterans and former military	
Incarcerated/formerly incarcerated individuals	• Recently released from incarceration • Gang members • Recently incarcerated
Individuals with substance use disorders	• Recovering addicts
Commercial sex workers	• Human trafficking • Prostitution
Parents and grandparents	• Families with young children
Health workers	• First responders • Emergency department/ social worker staff
School personnel	
Public health officials	
Providers	
The more typically harder to reach groups	

Appendix B: DOH/DPH Community Listening Session Questions

DOH, DPH, and IPHI facilitated 10 community listening sessions as part of the regional CHA. Sessions ranged from 45 to 90 minutes and group size ranged from 10 to 23 participants. The questions and topics that were discussed during the listening sessions included the following[13]:

- How do you define a **healthy community**?*
- Now consider children, adolescents and young adults—what defines a **healthy community for young people**? Does this change your definition? How so? What additions or changes would you make?
- What are the **best things** about your community? What things are present in your community that makes it a healthy place to live or improves your quality of life?
- What are some things about your community that are not so great or **need to be improved**? What things are present in your community that makes it hard to be healthy or have the best life you can have?
- Looking over this list of things that need to be improved to be a healthier community, what are the **biggest issues** facing your community?*
- Now consider children, adolescents and young adults—what are the **biggest issues facing these young people** in your community?
- What ideas do you have for **how these issues could be addressed**?
- You have become the leader over this community; what would you do to improve the health and quality of life? What issue would you **prioritize** and **how would you approach it**?
- How can the health department best **promote its services** in your community?

[13] Questions noted with * were asked in all DOH/DPH listening sessions.

Appendix C: BHN Community Listening Session Questions

In 2017, the Behavioral Health Network (BHN) conducted a children's behavioral health needs assessment on behalf of the St. Louis Region System of Care and St. Louis Mental Health Board. Their assessment process included primary data collection from two youth and two parent community listening sessions. Group size ranged from 4 to 25, with a total of 48 participants. BHN also worked with the Partnership to coordinate the SLACO listening session (see Table 1). The Partnership and BHN exchanged listening session data to broaden the reach of primary data collection for their respective assessments and to reduce the burden on community members while multiple assessments were conducted. BHN shared findings from the listening sessions conducted as part of the behavioral needs assessment, and likewise, the Partnership shared findings from the DOH/DPH listening sessions conducted as part of the regional CHA.

BHN and the Partnership developed shared questions for the community listening sessions:

- How do you define a **healthy community**?
- Now consider children, adolescents and young adults—what defines a **healthy community for young people**? Does this change your definition? How so? What additions or changes would you make?
- Looking over this list of things that need to be improved to be a healthier community, what are the **biggest issues** facing your community?
- Now consider children, adolescents and young adults—what are the **biggest issues facing these young people** in your community?

Appendix D: Diabetes Focus Group Questions

DPH conducted 12 Diabetes Focus Groups (herein referred to as "DFG") as part of the Community Health Worker Regional Planning Group. Survey sites were selected by permission given by members in the planning group and were from YMCA, Esse Health, Mid East Area Agency on Aging, and St. Louis Area Agency on Aging. Those participating were older adults at these sites. Group size ranged from 1 to 30 people, with a total of 149 participants. The DFG questions, listed below, were developed prior to the DOH/DPH listening session questions, therefore the questions are similar but not identical. DPH developed a summary of the DFG data points related to defining a healthy community and the biggest issues affecting health, for inclusion in the CTSA. While there were 12 separate focus groups, the 12 sets of responses were aggregated into 1 dataset for analysis.

1. If you were found to be at risk for diabetes, what would you be **willing to do to prevent it**?
2. How/where would you like to **receive information** to assist in making health changes?
3. What does **being in good health** mean to you?
4. How does your **doctor or health professional provide support** to you for self-management of your diabetes?
5. What has been the **best way for you to learn** about controlling or improving your blood sugar level?
6. What are the **barriers** you face in managing or preventing diabetes?
7. What ideas do you have to **overcome these barriers**?
8. How does your **health care provider support you** in managing your diabetes?

Appendix E: DOH/DPH Surveys

In addition to the community listening sessions and focus groups, the Partnership capitalized on opportunities to reach communities through surveys. Table 4 describes the surveys that were administered by DOH and DPH in May and July 2017. Copies of the surveys are on page 49 and 50.

Table B: DOH/DPH Surveys

Name	*Initials*	*Date*	*#*	*Description*
Bringing It Together Survey	BITS	5/26/17	28	DOH operated a health booth at the 37th Annual Bringing It Together: Age Out Loud HealthFest at The Muny Opera in Forest Park. The survey was given out to seniors who visited the DOH booth.
Black Pride Survey	BPS	7/18/17	10	St. Louis Black Pride is nonprofit that provides programming and advocacy for the St. Louis Metropolitan black and underserved gay, lesbian, bisexual, and transgender community. The survey was given out to individuals participating in a Black Pride Town Hall meeting.

St. Louis Partnership for a Healthy Community

St. Louis Community Health Survey - July 2017

The St. Louis City and County health departments are conducting a Community Health Assessment and we want your voice to be heard!

Please take this 5-minute survey to help us understand the health needs of the community. Your responses are completely anonymous.

* 1. Please enter the **zip code** where you live.

2. How do you define a **healthy community**?

3. List the **top 3 assets** in our community that support health and well-being.

Asset 1

Asset 2

Asset 3

4. List the **top 3 barriers** to being healthy in our community.

Barrier 1

Barrier 2

Barrier 3

5. If you had to **choose just 1 issue for the community to work on together** to improve health, what would you choose?

6. Please provide any other comments to help understand the health needs of our community.

Your feedback will inform community health planning in St. Louis. You can follow up on the results of the survey by visiting thinkhealthstlco.org in the fall of 2017.

CITY OF ST. LOUIS DEPARTMENT OF HEALTH

COMMUNITY HEALTH ASSESSMENT

37th Annual Bringing It Together - Age Out Loud

May 26, 2017

Demographic Information (Please, circle the appropriate responses.)

AGE Youth (5-12) Teen (13-19) Adult (20-59) Senior (60+)

GENDER Male Female

RACE Black/African American Asian White/Caucasian Native American

Hispanic/Latino Other (Specify: _____)

ZIPCODE OF RESIDENCE: _____

HOW DO YOU DEFINE A HEALTHY COMMUNITY?

_____

_____

_____

_____

_____

_____

WHAT ARE THE BIGGEST HEALTH CONCERNS FACING OUR COMMUNITY?

_____

_____

_____

_____

_____

Appendix F: Framework for CTSA Analysis

The qualitative data collected through the listening sessions, focus groups, and surveys were analyzed and coded according to 4 domains: Social and Economic Context, Health Behaviors and Health Outcomes, Access to Care, and Physical Environment. Within each domain are themes and subthemes, described in Table 5. This framework was developed for the 2017 St. Louis CTSA report to present the data in an organized fashion. The domains and themes are based in part on topics that can be found in the County Health Rankings Model and the Healthy People 2020 Social Determinants of Health Model.

Domain	Theme	Subthemes	Description of Data
SOCIAL & ECONOMIC FACTORS	Income & Employment	Business	Strengths and needs related to healthy local business and retail
		Employment	Needs, gaps, and barriers to job training and employment; need for more employers
		Economic Development	Needs related to sustainable economic development tools (e.g. tax incentives) and investment; barriers to attracting business and residents to St. Louis
		Homelessness	Needs and gaps related to homelessness
		Income	Strengths and gaps related to cost of living; barriers to financial stability; importance of neighborhood stability, home ownership, economic mobility
		Poverty	Impact of poverty on physical and mental health; poverty as a barrier to accessing services and resources; strength of local philanthropy
	Education	Disparity (Education)	Needs and barriers related to equitable education
		Early Education	Needs and gaps in early education
		General (Education)	Strengths, needs, and gaps about education access, quality, and attainment
		High School	Needs and gaps in high school education
		Higher Education	Needs and gaps in higher education
		Life Skills/Language	Needs and gaps in life skills and English language instruction
		Other Institutions	Strengths related to other educational and cultural institutions (e.g. libraries, museums)
	Family & Social Support	Communication	Needs and gaps related to communication between residents and communication from the institutional level to the community regarding social support and resources; lack of awareness as a barrier to accessing resources
		Families	Needs and gaps related to the family environment and parenting
		Identity	Characteristics that give St. Louis a strong identity

Domain	Theme	Subthemes	Description of Data
SOCIAL & ECONOMIC FACTORS	Family & Social Support (Continued)	Recreation	Needs and assets related to recreation for adults, youth, and families
		Role Models	Importance of having mentors and role models
		Social Cohesion	Importance of having positive relationships with fellow residents, helpful and caring neighbors, a supportive community environment free of stigma and oppression
		Social Services	Assets related to social services; need for safety net
		Spiritual	Assets related to religious institutions
		Support for Youth	Needs and gaps related to recreation, socializing, learning, and physical activity for young people outside of a school setting
	Civic Participation & Politics	Engagement	Strengths, gaps, and barriers related to community organizing, collective action, volunteering, participation in elections, and communication about local issues
		Government	Needs and gaps in governance, from local to state level
		Regional Planning	Needs and gaps related to regional planning and coordination
		Resource Distribution	Needs, gaps, and barriers related to resource distribution, including inequitable access and lack of resources for specific programs, populations, or geographic areas
		Race/Ethnicity and Segregation	Strengths related to diversity; racism, discrimination, and segregation as a barrier to accessing services and resources
	Community Safety	Children	Impact of crime on children's physical and mental wellbeing
		Crime	Types of crime and their impact on health; perceived causes of crime
		Feeling Safe	Importance of feeling safe inside and outside one's home; needs and gaps related to safety; lack of safety as a barrier to accessing services and resources
		Incarceration	Needs and gaps related to incarceration and reentry
		Law Enforcement	Needs and gaps related to community-law enforcement relations; gaps in hiring and training for law enforcement and emergency personnel

Domain	Theme	Subthemes	Description of Data
HEALTH BEHAVIORS & HEALTH OUTCOMES	Health Behaviors	Awareness	Lack of awareness about healthy behaviors as a barrier to health
		Diet	Needs, gaps, and barriers related to healthy diet
		General (Health Behaviors)	Barriers to overall healthy behaviors, such as culture, attitude, and lack of time
		Physical Activity	Needs, gaps, and barriers related to physical activity
		Substance Use	Observations about substance use, including alcohol, tobacco, prescription drugs, and illegal drugs
	Health Outcomes	Chronic Disease	Chronic diseases prevalent in the community
		Overall Health	Observations about overall health and health disparities
	Mental Health Status	Children's Mental Health	Needs and gaps related to children's mental health and healthy brain development
		General (Mental Health)	Observations about mental health issues in general
		Mental Health Conditions	Types of mental health conditions in the community
		Peer Pressure/Bullying	Peer pressure and bullying as a barrier to mental health
	Maternal & Child Health	General (MCH)	Observations related to infant mortality, lead poisoning, STDs, and teen pregnancy
CLINICAL CARE	Access to Care	Behavioral Health Services	Barriers to accessing behavioral health services; disparities in diagnoses among different populations; gaps in behavioral health services and/or providers
		Cost of Healthcare	High cost/unaffordable care and equipment as a barrier to health
		General (Access to Care)	Assuring access to healthcare for certain populations (e.g. low-income, seniors); universal healthcare; access to insurance
		Medication	Medication needs and gaps
		Mobile Health	Mobile health needs and gaps
		Providers	Needs and gaps in services and/or providers (other than behavioral health)
	Quality of Care	General (Quality of Care)	Any comments related to quality of care across medical, public safety, and social services

Domain	Theme	Subthemes	Description of Data
PHYSICAL ENVIRONMENT	Food Access	Food Cost	High cost of healthy food as a barrier to health
		Gardens	Need for additional community gardens
		General (Food Access)	Gaps and needs for food access and food quality
		Grocery/Markets	Gaps and needs for neighborhood grocery/farmer's markets
		School Food Access	Barriers to healthy food access in schools
	Built Environment	Accessible	Assuring mobility and access for elderly and people with disabilities (physical and cognitive) inside and outside the home
		Clean and Safe	Importance of clean and safe environment
		Housing	Importance of quality, safe, affordable housing
		Transportation	Assets and gaps related to transportation infrastructure
		Vacancy	Deficits related to high vacancy such as dilapidated appearance, reduced safety
		Walkability	Barriers to safe walking; need for walkability
	Natural Environment	Air Quality	Needs and gaps related to air quality
		Green Space	Assets related to green and open space
		Other (Natural Environment)	Other observations about natural environment such as climate and weather
		Trash	Trash and illegal dumping as a barrier to healthy environment; gaps in trash disposal and recycling
		Water Quality	Needs and gaps related to water quality

Appendix G: Top Themes and Subthemes

The responses for the listening sessions and surveys were coded according to the themes and subthemes described in the Framework for Analysis. In the following tables, green represents the highest frequency (a measure of the most important issues) and red represents the lowest frequency (a measure of the least important issues).

Top Themes by Question, All Groups

Table C shows the frequency of each *theme* by *type of question*: (1) characteristics of a "healthy community"; (2) community assets and strengths that contribute to health; and (3) community needs, gaps, and barriers to being healthy. When describing a healthy community, participants frequently cited topics related to family and social support, community safety, and built environment. When describing the assets and strengths of St. Louis, the participants spoke most frequently about education, family and social support, and civic participation and politics. When asked about the needs, gaps, and barriers to health, participants noted issues related to income and employment, civic participation and politics, and community safety.

Table C: Top Themes by Question

	Healthy Community	Assets & Strengths	Needs, Gaps & Barriers	Overall
Family & Social Support	81	30	52	163
Community Safety	63	14	76	153
Civic Participation & Politics	25	28	82	135
Income & Employment	23	19	87	129
Built Environment	60	12	48	120
Health Behaviors	32	12	50	94
Education	18	31	42	91
Access to Care	33	5	48	86
Natural Environment	38	19	20	77
Mental Health Status	7	1	47	55
Food Access	23	4	26	53
Health Outcomes	4	0	35	39
Quality of Care	3	8	8	19
Maternal & Child Health	1	0	12	13
Number of Comments	**411**	**183**	**633**	**1227**

Top Subthemes By Question, All Groups

Tables D, E, and F list the *subthemes* that were cited most frequently in the listening sessions and surveys. According to participants, a healthy community displays social cohesion, feels safe, lacks crime, has ample green space, and has a clean and safe built environment (see Table D).

Table D: Top Subthemes for Characteristics of a Healthy Community	
Social Cohesion (Family & Social Support)	43
Feeling Safe (Community Safety)	25
Lack of Crime (Community Safety)	18
Green Space (Natural Environment)	18
Clean and Safe (Built Environment)	17
Physical Activity (Health Behaviors)	14
General (Access to Care)	14
Housing (Built Environment)	14
General (Food Access)	13
General (Education)	12
Walkability (Built Environment)	11
Support for Youth (Family & Social Support)	11
Transportation (Built Environment)	11
Law Enforcement (Community Safety)	11
Lack of Trash (Natural Environment)	11

The top assets and strengths for St. Louis cited by participants included community engagement, cultural institutions such as museums and libraries, ample green space, opportunities for physical activity, and transportation (see Table E).

Table E: Top Subthemes for Assets and Strengths	
Engagement (Civic Participation & Politics)	18
Other Institutions (Education)	14
Green Space (Natural Environment)	14
Physical Activity (Health Behaviors)	10
Transportation (Built Environment)	9
General (Quality of Care)	8
Income (Income & Employment)	8
Race/Ethnicity & Segregation (Civic Participation & Politics)	8
General (Education)	8
Feeling Safe (Community Safety)	8
Recreation (Family & Social Support)	8
Identity (Family & Social Support)	6
Higher Education (Education)	5
Law Enforcement (Community Safety)	5
Social Cohesion (Family & Social Support)	5
Social Services (Family & Social Support)	5

The biggest needs, gaps, and barriers to health cited by participants included crime, chronic disease, employment, racism and segregation, and children's mental health (see Table F).

Table F: Top Subthemes for Needs, Gaps & Barriers	
Crime (Community Safety)	36
Chronic Disease (Health Outcomes)	29
Employment (Income & Employment)	28
Race/Ethnicity & Segregation (Civic Participation & Politics)	27
Children's Mental Health (Mental Health Status)	23
Substance Use (Health Behaviors)	22
Income (Income & Employment)	21
Resource Distribution (Civic Participation & Politics)	20
Disparity (Education)	20
Behavioral Health (Access to Care)	19
Support for Youth (Family & Social Support)	17
Poverty (Income & Employment)	16
Accessible (Built Environment)	15
Law Enforcement (Community Safety)	14
General (Food Access)	14
Engagement (Civic Participation & Politics)	14

Top Themes by Question, By Group

Yellow represents the top 3 *themes* for each group. In some groups, there was a tie for the top 3 themes; in these instances, the top 4 themes are highlighted in yellow.

Table G: Top Themes for Characteristics of a Healthy Community																
	BHNP	BHNY	BITS	BPL	BPS	CHAT	CITY	DFG	KH	P4P	PQ	SASI	SLA	SWC	UL	Overall
Family & Social Support	12	4	5	4	5	4	3	19	1	4		2	9	4	5	81
Community Safety	12	4	1	10	4	3	2	13	1	6		1	2	2	2	63
Civic Participation & Politics	3	3	4	2		8	5	15		6	2	3	4	5		60
Income & Employment	1	4	1	7	3	7	2	4	3	1		2	1	1	1	38
Built Environment			3	6	6	5	1	5			5		1	1		33
Health Behaviors	1	1	6			2		10	9	1	1				1	32
Education	1		1	2	2	4	1	3	1			2	1	4	3	25
Access to Care	1		2	2	1	2	1	6	2	1	1		1		3	23
Natural Environment	3			4	3	4	2	1		4			1		1	23
Mental Health Status	2				1	4	2	1		1			1	2	4	18
Food Access		4	1	1					1							7
Health Outcomes									3	1						4
Quality of Care			1	1	1											3
Maternal & Child Health		1														1
Grand Total	**36**	**21**	**25**	**39**	**26**	**43**	**19**	**77**	**21**	**25**	**9**	**10**	**21**	**19**	**20**	**411**

Table H: Top Themes for Assets and Strengths												
	BPL	BPS	CHAT	CITY	KH	P4P	PQ	SASI	SLA	SWC	UL	Overall
Education		2	5	5	5			3	6	1	4	31
Family & Social Support	1	4	4	2		4	3	2	2	1	7	30
Civic Participation & Politics	1	6	9	4	1		2	1	2		2	28
Natural Environment		2	5	6	2	1		1	1	1		19
Income & Employment			7	3		3			2	3	1	19
Community Safety		2	3		5	4						14
Built Environment		2	1			4		3	1	1		12
Health Behaviors		3	1		7				1			12
Quality of Care			4	1	1			1		1		8
Access to Care		2					1		1		1	5
Food Access		1		1	2							4
Mental Health Status							1					1
Grand Total	**2**	**24**	**39**	**22**	**23**	**16**	**7**	**11**	**16**	**8**	**15**	**183**

Table I: Top Themes for Needs, Gaps & Barriers																
	BHNP	BHNY	BITS	BPL	BPS	CHAT	CITY	DFG	KH	P4P	PQ	SASI	SLA	SWC	UL	Overall
Income & Employment			3	1	9	9	27	3	1	10		1	11	5	7	87
Civic Participation & Politics	1		2	1	6	21	16	3		2		4	18	2	6	82
Community Safety	2	6	6		3	7	5	10	1	5	1	4	12	7	7	76
Family & Social Support	4	1	1		5		5	2	1	1		12	4	5	11	52
Health Behaviors	2	1	3		3	1	1	16	13				2		8	50
Access to Care			4	2	7	4	1	3	1	1	4	2	8	6	5	48
Built Environment	2		1		1	5	4	3			9	11	7	2	3	48
Mental Health Status	7	5			2	1	5			5		10	10		2	47
Education			2		2	2	9	2		4		2	14	3	2	42
Health Outcomes		1	6			5		15	2	5					1	35
Food Access			3		3	2	1	7	3		2	1	2		2	26
Natural Environment		2				1	3	9				1	3	1		20
Maternal & Child Health		1	1			4			1	2					3	12
Quality of Care				1	1				2			4				8
Grand Total	**18**	**17**	**32**	**5**	**42**	**62**	**77**	**73**	**25**	**35**	**16**	**52**	**91**	**31**	**57**	**633**

Appendix H: Solutions and Strategies Framework for Analysis

Table J: CHIP Tiers of Intervention

Impact	TIER: *definition*	Examples	Effort
Lowest	**EDUCATION AND COUNSELING:** ***health education (education provided during clinical encounters as well as education in other settings)***	Urging behavioral change, peer counseling, booklets, informational campaigns, facilitating discussions, fact sheets, briefs, dialogues, awareness literature, parent support and training, workshops, resource literature, toolkits, workbooks, counseling, outreach, issue alerts	Most Individual
	CLINICAL INTERVENTIONS: ***ongoing clinical interventions that benefit from adherence***	Prescriptions, medication, blood pressure control, cholesterol control, weight loss surgery, EHR, physician practices, financial incentives, care coordination and navigation, transitional care (ped to adult), case management, lead screening, CO poisoning, home visits; group provider patient visits, out-pt education	
	LONG-LASTING PROTECTIVE PUBLIC HEALTH INTERVENTIONS: ***1-time or infrequent protective interventions that do not require ongoing clinical care; necessitate reaching people as individuals rather than collectively***	Immunization, colonoscopy, smoking cessation programs, NRT, antibiotics, initiating with a PCP, lab work, vaccinations, mental, maternal, STI, etc. health assessments, provider referrals, screenings, diagnosis, treatment, training CHWs, PCMH, professional trainings, TA, data systems, surveillance, quality assurance, inspections, remediation, meetings, oversight, coalition work	
	CHANGING THE CONTEXT – HEALTHY BEHAVIORS AS THE DEFAULT: ***make healthy options the default choice, individuals would have to expend significant effort not to benefit from them***	clean water, air, and food; improvements in road and vehicle design; elimination of lead and asbestos exposures; and iodization of salt, changing from saturated to unsaturated cooking oils, designing communities to promote increased physical activity, enacting policies that encourage public transit, bicycling, and walking instead of driving; designing buildings to promote stair use; passing smoke-free laws; and taxing tobacco, alcohol, and unhealthy foods such as soda and other sugar sweetened beverages, decreasing salt in packaged foods	
Highest	**SOCIAL AND ENVIRONMENTAL DETERMINANTS OF HEALTH:** ***affect individual and community health directly, through an independent influence or an interaction with other determinants, or indirectly, through their influence on health-promoting behaviors***	poverty, relative deprivation, lack of access to sanitation, exposure to environmental hazards/toxins, Social injustice, life-enhancing resources such as food supply, housing, economic and social relationships, transportation, education, and health care, insurance, adverse living conditions, segregation, occupational hazards, marketing for substances, unemployment, discrimination, institutional racism, jobs	Least Individual
	Code book references: http://www.health.ri.gov/publications/books/EquityPyramid.pdf and https://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/SDOH-workbook.pdf		

Table K: CHIP Structure Codebook		
	Sub-Tiers: definitions	**Areas of focus:** example constructs
Priorities	***Address SDOH as root causes of health*** affect individual and community health directly, through an independent influence or an interaction with other determinants, or indirectly, through their influence on health-promoting behaviors ***Source: CDC's SDOH workbook***	**Social inequities:** class, race/ethnicity, immigration status, gender, sexual orientation **Institutional inequities:** corporations & businesses, government agencies, schools, laws & regulations, not for profit organizations **Living conditions:** *physical environment* – land use, transportation, housing, residential segregation, exposure to toxins; *economic & work environment* – employment, income, retail businesses, occupational hazards; *social environment* – experience of class, racism, gender, immigration, culture, ads, media, violence; *service environment* – health care, education, social services
	Eliminate disparities in health and promote racial equity Health equity is achieved when every person has the opportunity to attain his or her full health potential and no one is disadvantaged from achieving this potential because of social position or other socially determined circumstances; Racial Equity is a state in which race no longer predicts outcomes *Source: Forward through Ferguson*	**Health equity** includes population in efforts to improve community; diverse and inclusive partnerships; data that ensure strategies account barriers and needs; health equity in strategy selection, design, and implementation; make the case for equity through communication and evaluations that reveal what works for whom under what conditions **Racial Equity** awareness of inequity, understanding of why inequity exists, and transforming towards equity; diversity, inclusion, tolerance, cultural competency, race as a social construct; institutional racism, intersectionality, internalized oppression, internalized superiority; disaggregated data, racial equity lens, structural racism, equity-driven strategy, liberation
	Improve the local public health system to address collective needs collective efforts of public, private, and voluntary entities, as well as individuals and informal associations that contribute to the	**Assessments and Data Collection:** encourage data-driven decision making; improve health conditions and factors; link health indicators to SDOH data; community resource dashboard **Community Engagement and Communication:** community members and stakeholders; partnerships between research and practice; risk and EP communication; constituency development; including marginalized populations' authentic voice in decision-making; tailoring reports **Partnership and Collaboration:** collaboration across sectors outside of what is considered traditional public health; reducing fragmentation and silos to de-duplicate work; implementing shared solutions; increase joint publications between academic and practice; promote the system to business and innovation community

	public's health within a jurisdiction (Source: LPHSA report)	**Action and Accountability:** translate data into action; move from individual to collective action and implementation; scale projects at the community level; integrate existing plans and harmonizing with funders **System-wide Workforce Development:** public health staff, good leadership, and high potential for the existing talent, lacks workforce capacity in behavioral health services and EP; lack of diversity and difficult recruitment/retention; partnering to assess the workforce; increase practitioners' research contributions **Determinants of Health/Health Equity:** gaps in access to care due to inadequate language and interpretation services, lack of access to transportation, and lack of behavioral health services. Lack of trust from marginalized groups is a barrier to engagement; promoting a common understanding of the scope of public health; utilizing existing racial equity tools; changing the systemic and structural issues that create avoidable disparities **Elevate Public Health as a Priority:** building a culture of health to make public health a priority; telling the narrative of why we engage in public health activities; and elevating the innovative work that is occurring in the LPHS; funding decrease when budgets are cut; high reliance on grant funding **Policy:** demonstrated willingness to take on policy reforms; proactive policy work versus reactive; conducting HIA, involving partners earlier in the process; policy surveillance **Resources:** organizational silos don't allow for efficient use of resources; funding sustainability; explicit about critical funding gaps; align funders and organizations
Outcomes	Access to Care and Social Services	**Ensure access to care for all:** Indicators of access to care often include having health insurance, having a usual source of care (i.e., established provider), encountering difficulties when seeking care, and receiving care as soon as wanted. Additional indicators are the uninsured population, provider rates, Medically Underserved Areas (MUAs), Health Professional Shortage Areas (HPSAs), and emergency department visits
	Behavioral Health	**Improve behavioral health outcomes and reduce substance abuse burden: in progress**
	Chronic Disease Prevention and Management	**Promote healthy living and reduce burden of chronic disease:** chronic diseases are the leading causes of death and disability in the United States. Most events resulting in injury, disability, or death are predictable and preventable related health promotion issues, including the social and environmental factors that contribute to obesity, lack of physical activity and poor diet. factors that both promote healthy living (more physical activity and better diet) and prevent the development or exacerbation of chronic diseases
	Violence Prevention	**Address violence prevention as public health issue: in progress**
	Maternal, Child, Family, and Sexual Health	**Improve maternal, child, family, and sexual health: in progress**

Saint Louis Forces of Change Assessment

November 2017

Prepared by the Illinois Public Health Institute

Contents

Introduction

MAPP Framework

In 2017, the St. Louis Partnership for a Healthy Community (herein referred to as "the Partnership") conducted a comprehensive community health assessment (CHA) using the Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework that assists communities in developing and implementing efforts around the prioritization of public health issues and the identification of resources to address them. The MAPP process, as shown in Figure 1 below, includes four types of assessment to create a more comprehensive picture of the needs and assets in a given community. The community defined for this assessment and planning process is St. Louis city and county.

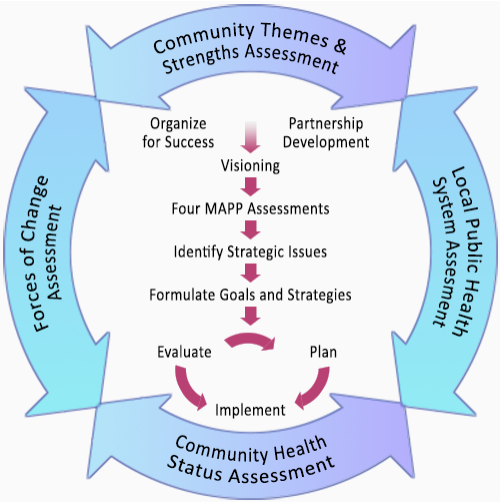


Figure 1: MAPP Process (NACCHO, 2013)

- The **Community Health Status Assessment (CHSA)** provides quantitative information on community health conditions.
- The **Community Themes and Strengths Assessment (CTSA)** identifies assets in the community and issues that are important to community members.
- The **Local Public Health System Assessment (LPHSA)** measures how well different local public health system partners work together to deliver the Essential Public Health Services.
- The **Forces of Change Assessment (FOCA)** identifies forces that may affect a community and the opportunities and threats associated with those forces.

FOCA Overview

Of the four assessments, this report focuses on the findings of the Forces of Change Assessment (FOCA). The FOCA identifies forces – such as trends, factors, or events – that are or may influence the health and quality of life of the community and the effectiveness of the local public health system.

- **Trends** are patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- **Factors** are discrete elements, such as a community's large ethnic population, an urban setting, or the jurisdiction's proximity to a particular community resource.
- **Events** are one-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

During the FOCA, participants answer the following questions:

- What is occurring or might occur that affects the health of our community or the local public health system?
- What specific threats or opportunities are generated by these occurrences?

Forces are considered from a diverse set of categories such as social, technological, political, legal, and beyond.

Assessment Methodology

On February 14, 2017 the Community Health Advisory Team (CHAT)[1] completed the FOCA during their monthly meeting. A neutral facilitator from the Illinois Public Health Institute (IPHI) guided participants through the FOCA. The facilitator provided a brief overview of the MAPP process and honed in on the definitions and components of the FOCA process. The facilitator introduced the following eight categories as the framework for the assessment:

- Social
- Economic
- Political
- Technological
- Environmental
- Medical/Scientific
- Legal and/or ethical
- Religion/spirituality

Groups of three to five individuals were assigned a category and discussed potential forces. For each force of change, the CHAT members were asked to identify potential threats posed to the Local Public Health System (LPHS) or community; potential opportunities created for the LPHS or community; and any questions or information needed. Group members passed their category and list of forces, opportunities, and threats to another table to review and add to the work of the previous group. Small group members then identified the top three priority forces of change for the category and reported out to the full group. IPHI summarized the common themes from the report out.

Following the FOCA, the CHAT and Partnership members were given the opportunity to review the compilation of notes from the small group charts, the cross-cutting themes that surfaced from the discussion, and the draft FOCA report summarizing the core issues that emerged from the assessment process. Partnership members provided recommended edits to finalize this report.

[1] The CHAT is the advisory body for the St. Louis Regional CHA. As of December 2017, the CHAT had representatives from 52 different organizations.

Executive Summary

The forces of change identified in this assessment represent important issues affecting St. Louis and their potential implications on the health and quality of life of community members and the local public health system. The Forces of Change Assessment (FOCA) is one of four distinct assessments used as part of the MAPP process to create a Community Health Assessment (CHA) that is data-driven and supported by the community. The Community Health Advisory Team (CHAT)[1] members gathered in February 2017 to think strategically about potential forces of change and their corresponding threats and opportunities. Members looked to the future to anticipate forces in addition to looking at current forces. Participants engaged in rich dialogue and identified many forces of change along with related threats and opportunities for the community and public health system. Analysis of the information compiled from all the discussions yielded the following cross-cutting themes (see Figure 2):

Figure 2: FOCA Cross-Cutting Themes

The participants recognized the uncertainty and instability associated with potential changes to federal policy. There was particular concern regarding the repeal and/or replacement of the Affordable Care Act (ACA) and the impact it will have on regulations, funding for public health, and access to care. Another theme was lack of funding for programs due to budget cuts at federal, state, and local levels. The group pointed to reduced tax revenue due to population loss, shifts in political priorities, macroeconomic trends, and inequitable allocation as the drivers behind loss of funding for critical programs and services. Violent crime was a common theme across categories, including gun violence and violence directed towards communities of color. Violence is not only a threat to residents' safety but also affects access to opportunity and investment. Social justice surfaced as a cross-cutting theme, in relation to economic inequity (e.g. the impact of tax abatements), citizen-law enforcement relations, and environmental inequity. Finally, population shifts and urban renewal influence tax revenue, economic development, and social cohesion.

The cross-cutting themes are described in-depth within the body of this report. In addition to these five cross-cutting themes, CHAT members defined several other important forces within the categories of influence. A full narrative of the forces identified by CHAT members in February 2017 can be found in Appendix A. Appendix B contains a table listing all forces, threats, opportunities, and follow-up discussion. The descriptions in the report represent the perceptions and opinions shared by the CHAT participants during the FOCA exercise. Where possible, participant statements are substantiated by research and sourced in footnotes.

Cross-Cutting Forces of Change

Policy Change (ACA)

The participants recognized the uncertainty and instability associated with potential changes to federal policy. While the political landscape is always changing, the 2016 election and subsequent months have been particularly volatile. There was concern regarding the repeal and/or replacement of the Affordable Care Act (ACA) and the impact it will have on regulations, funding for public health, and access to care.

Threats from repeal or replacement of the Affordable Care Act include:

- Reduced or eliminated health insurance coverage;
- Reduced access to care;
- Lower worker productivity due to lost days at work;
- A decline in health and quality of life for certain populations; and
- Reduced funding for public health.

However, participants noted this policy change may be an opportunity for more prevention focused on public health (rather than disease treatment); advocacy for a more developed healthcare plan or universal health coverage; and increased efforts to equalize costs to all insured.

Participants noted a challenging political environment at the federal, state, and local levels. The groups discussed other federal/state policy implications such as:

- Possible tariffs on Mexican imports
- Uncertainty about immigration policy
- Repeal or weakening of Dodd-Frank Wall Street Reform and Consumer Protection Act
- Delayed implementation of the Department of Labor's Fiduciary Rule
- Efforts to roll back reproductive rights
- Weakening of environmental regulations
- Potential legalization of marijuana
- Right to Work legislation in Missouri
- Gun control or repeal of gun laws

Funding for Critical Programs

A major cross-cutting theme was lack of funding for programs and services due to budget cuts at federal, state, and local levels. The group pointed to reduced tax revenue due to population loss, shifts in political priorities, macroeconomic forces, and inequitable allocation as the drivers behind loss of funding for critical programs and services. Key programs impacted by the funding cuts include foreclosure prevention programs; Planned Parenthood; arts programming; parks/recreation; the state health department; and higher education.

Potential threats from funding loss include:

- Decreased funding for communities;
- Lack of support for programs and services;
- Lack of equity in support across communities;
- Decreased level of services or denial of services;
- Fewer prevention programs (which may contribute to poor public health);
- Reduced access to higher education (which may reduce economic mobility); and

- Limited infrastructure to respond to new and emerging infectious diseases and vectors for disease.

Although budget cuts and lack of funding is a general trend for public health, the participants recognized potential opportunities, including:

- Increased advocacy to assist individuals who cannot represent themselves;
- Restructuring, reorganizing, and consolidating programs to prevent duplication; and
- Opportunities to seek advice from experts and creativity to solve problems in new ways.

Violent Crime

Violent crime was a common theme across categories, including gun violence and violence directed towards communities of color. Violence disproportionately affects communities of color and is not only a threat to residents' safety but also affects access to opportunity and investment in the community. The participants also noted greater incidence of violence against the Muslim community and other immigrant groups.

Threats from violent crime include:

- Loss of personal safety;
- Anarchy and disengagement;
- Death, injury, fear, and trauma; and
- Negative perceptions of the community, which may affect whether people choose to visit or invest.

The group suggested that there are opportunities for law enforcement reform. However, efforts should be focused on "upstream" preventions, such as promoting racial equity and education reform. Participants noted that street cameras are more prevalent and potentially reduce crime and violence, though they also raise ethical concerns and heighten demand for real time response to issues.

Social Justice

Social justice surfaced as a cross-cutting theme, in relation to economic inequity (e.g. the impact of tax abatements), citizen-law enforcement relations, and environmental inequity. The legacy of structural racism produced patterns of segregation, disinvestment, and injustice that have proven difficult to reverse.

Two examples of economic inequity noted by the group were higher interest rates for communities of color and lack of tax abatements for low-income areas of the city. Threats from this include:

- Lower rates of home ownership;
- Less economic mobility;
- Less investment and development in areas of need; and
- Higher crime rates in disinvested communities.

Addressing the interest rates and tax abatements could potentially reduce disparity in wealth distribution across all communities. The group saw the tax abatement issue as an opportunity to apply an equity lens to all budget decisions to have a fairer allocation of resources.

The death of Michael Brown in Ferguson, Missouri and its underscoring of ongoing social injustices deeply affected not only St. Louis but the entire nation. The participants identified threats from this

event as continued violence and civil unrest. However, participants noted there is opportunity to build racial and economic harmony through the work of the Ferguson Commission, which was created to study the underlying social and economic conditions and make specific, practical recommendations to improve equity and social cohesion in the region, and beyond.

The group noted that St. Louis has large disparities in terms of environmental quality. Changes to food production and distribution have profoundly affected local communities. Dismantling of the Environmental Protection Agency and the increased focus on coal and oil will negatively affect air and water quality. Regarding built environment, disinvested neighborhoods have a higher prevalence of abandoned buildings and less infrastructure to support healthy lifestyles (transit, safe green spaces, etc.)

Threats include:

- Increased pollution, which may lead to health issues such as asthma and heart disease;
- Increase in food deserts, which affect food access and nutrition; and
- Increased prevalence of obesity and other chronic diseases.

Opportunities to address environmental equity include:

- Instilling community pride and ownership to improve the built environment;
- Double down on local level legislation and use less conventional partnerships across industries to address environmental regulations; and
- Improve food access through fresh mobile markets, farmers' markets, and additional funding and support.

Population Shifts

The possibility of merging St. Louis County with the City of St. Louis is a point of contention in the community. The merger would result in a larger land area and larger population and could potentially reverse the effects of fragmentation, particularly the city-county division, population loss, and the economic consequences of those problems.[2] However, with development also comes displacement, either through acquisition and demolition of existing communities or pricing out low-income residents in communities that are being gentrified.

Potential threats associated with population shifts include:

- Loss of earnings tax if there is a city/county merger;
- Loss of population results in fewer tax dollars for education;
- Population dispersion contributes to declining membership at religious institutions;
- Religious leaders are not living in the neighborhoods they serve;
- Loss of community anchor institutions due to population loss may reduce community cohesion.

Potential opportunities that arise from population shifts include:

- New economic development projects such as the National Geospatial-Intelligence Agency, Cortex Innovation Community, and BJC HealthCare;

[2] Between 1950 and 2000, the City of St. Louis lost 59% of its population, from a peak of 856,796 in 1950 to 348,189 in 2000. (Source: "U.S. Urban Decline and Growth, 1950 to 2000.") The City lost an additional 8% of its population between 2000 and 2010 while suburban St. Charles County grew by 27% in the same period. St. Charles County now has a bigger population (~360,000) than the City (~319,000). (Source: Mapping Decline: St. Louis and the American City.) In 2016, St. Louis County dropped below 1 million for the first time since 2011, largely due to a rise in net domestic out-migration. (Source: United States Census Bureau, Press Release Number CB17-44.)

- Expansion of local universities and medical centers;
- Congregations changing the way they do business or operate; and
- Religious leaders to create new, intentional relationships based on other factors besides proximity.

Conclusion

The forces of change identified by the CHAT represent key issues that will have important implications for the local public health system and the health and quality of life for residents in St. Louis. As leaders of the community, CHAT members are keenly aware of the forces of change at the local, state, and federal level and they bring vital insight to this assessment. The FOCA themes included policy change; funding cuts; violence; social justice; and population shifts (see Figure 3).

Figure 3: FOCA Cross-Cutting Themes

The participants recognized the uncertainty and instability associated with potential changes to federal policy. There was particular concern regarding the repeal and/or replacement of the Affordable Care Act (ACA) and the impact it will have on regulations, funding for public health, and access to care. Another theme was lack of funding for programs due to budget cuts at federal, state, and local levels. The group pointed to reduced tax revenue due to population loss, shifts in political priorities, macroeconomic trends, and inequitable allocation as the drivers behind loss of funding for critical programs and services. Violent crime was a common theme across categories, including gun violence and violence directed towards communities of color. Violence is not only a threat to residents' safety but also affects access to opportunity and investment. Social justice surfaced as a cross-cutting theme, in relation to economic inequity (e.g. the impact of tax abatements), citizen-law enforcement relations, and environmental inequity. Finally, population shifts and urban renewal influence tax revenue, economic development, and social cohesion.

The cross-cutting themes identified in the FOCA will be considered during the regional CHA process, along with the findings from three other MAPP assessments (see page 2 for explanation). The CHA will inform a comprehensive Community Health Improvement Plan (CHIP) to address current health priorities as well as support increased resilience and preparedness for the future.

Appendix A: Narrative by Category

Below is a narrative of all the forces that participants discussed in the eight FOCA categories.

Social

Participants identified several political forces that have social impact. Participants noted a challenging political environment at the federal, state, and local levels. Potential threats from elected officials include decreased funding for communities, lack of support for programs and services, and lack of equity in support across communities. However, with encouraging officials, potential opportunities could be increased advocacy to assist individuals who cannot represent themselves, continuing education, and equality in education. Participants emphasized change in local leadership as a separate force because it can result in a shift in priorities, which can be interpreted as both a threat and opportunity. Another force with social impact is the defunding of programs such as foreclosure prevention programs, Planned Parenthood, arts programming, and parks/recreation. City funds also can be significantly reduced. On the other hand, defunding can stimulate restructuring, reorganizing, and consolidating programs to prevent duplication.

In addition to politics, the economy has a direct social impact. Economic downturns affect funding and level of services; can result in denial of services; and may increase divisiveness, lack of empathy, and threats to public safety. Despite these threats, this force offers opportunities to seek advice from experts and necessitates creativity to solve problems in new ways.

The death of Michael Brown in Ferguson, Missouri and its underscoring of ongoing social injustices deeply affected not only St. Louis but the entire nation. The participants identified threats from this event as continued violence and civil unrest. However, participants noted there is opportunity to build racial and economic harmony through the work of the Ferguson Commission, which was created to study the underlying social and economic conditions and make specific, practical recommendations to improve equity and social cohesion in the region, and beyond.

Participants discussed how changing diversity may result in anger, hostility, and reduced inclusiveness. It can also decrease the sense of community and the feeling of having common ground. Despite these threats, this is an opportunity to mobilize individuals within the community to work together and talk with each other.

The group brought up certain health issues as social forces of change. Opioid abuse is a force that has resulted, and can continue to result, in death, family strife, and loss of income. However, there is an opportunity to decriminalize addiction and treat it as a health condition. In addition, increased prevalence of sexually transmitted infections (STIs) can result in further spread of disease if not properly addressed. That said, increased awareness and education about STI prevention and treatment can reduce the spread of disease and result in better treatment and greater quality of life within the community.

Economic

Participants considered several public health and healthcare related topics to be economic forces of change. Lack of affordable healthcare has the potential to affect worker productivity due to lost days at work. However, this may be an opportunity for more prevention focused on public health. Participants stated that budget cuts for the state public health department would lead to fewer prevention

programs, and thus, poor public health, which in turn presents an opportunity for pharmaceutical companies to make more money. The group also discussed the repeal of the Affordable Care Act (ACA) as an economic force of change that could reduce health insurance coverage and funding for public health. It could also limit insurance benefits. Respondents noted that this force is an opportunity to advocate for a more developed healthcare plan and to equalize costs to all insured.

In addition to healthcare related issues, participants noted inequity in interest rates for communities of color as a force of change, which contributes to lower home ownership and less economic mobility among these communities. Addressing this trend could potentially eliminate disparity in wealth distribution across all communities.

Participants also talked about several forces that only led to potential threats and did not have any opportunity. The passage of Right to Work legislation in Missouri weakens workers' rights and benefits, and decreases access to healthcare. Possible tariffs on Mexican imports would decrease access to affordable healthy food. Uncertainty about immigration policy could result in economic downturn in all sectors and increase costs for businesses and consumers. A decrease in funding for higher education directly results in less access to higher education and also impacts economic mobility.

Political

The possibility of merging St. Louis County with the City of St. Louis is a point of contention in the community. The group identified the loss of earning tax as a threat because City residents and those who work and earn money in the City pay earnings tax and those who live in St. Louis County and do not work and earn money in the City do not pay earnings tax. The merger would result in a larger land area and larger population, which may consolidate resources. The merger could potentially reverse the effects of fragmentation, particularly the city-county division, population loss, and the economic consequences of those problems. The dwindling population in the City is a force of change, because it has resulted in a loss of revenue. The population shift could provide opportunities for urban renewal, as exemplified by changes in neighborhoods like Mill Creek Valley and Lafayette Square, or developments such as the National Geospatial-Intelligence Agency, Cortex Innovation Community, and BJC HealthCare.

Participants also discussed violent crime, especially gun violence, as a political force of change. Threats are loss of personal safety, anarchy, and disengagement. This force has an impact on how people see the community, and whether they choose to visit or invest, which has political, social, and economic consequences. For example, media coverage often reinforces negative characterizations of the area. Opportunities are present in "upstream" preventions, such as promoting racial equity, law enforcement reform, and education reform.

Budgetary constraints are a force of change that can result in the loss of critical services. However, it could also prompt reallocation of resources and reduction of duplicate services. Changes in all levels of political leadership can shift values and priorities, which is both a threat and an opportunity. Depending on the shift, it can result in weaker communities, or give hope for new ways of dealing with problems.

Another issue the group highlighted is the degree of equity in tax abatements. For example, the central corridor receives tax abatements, but that same level of attention is not directed toward the northern part of the city. This impacts the level of investment, development, and crime rates. Overall, the group saw this issue as an opportunity to apply an equity lens to all budget decisions to have a fairer allocation of resources.

The increase in hidden populations, such as people struggling with substance abuse, mental illness, and/or homelessness is a force that has resulted in fear, loss of compassion, and loss of diversity in the community. With increased awareness of the struggles of others, individuals can realize that everyone is affected by these issues and can work to mitigate these threats. In addition, there should be an evaluation of organizations that work on behalf of refugees and immigrants that are experiencing these challenges.

For a long time, community and government agencies have been silos, which can result in a lack of information sharing. There is an opportunity to enhance communication and share more information and data among agencies to become more efficient and achieve better outcomes.

Technological

The threats associated with new communications methods (such as social media) included an inability to document reach; the spread of false or inaccurate information; frequent software changes or upgrades; reduced interpersonal skills from lack of face-to-face interaction; increased cyber-bullying; and development of new "addictions" to technology. The potential opportunities included faster community engagement; new educational methods; less use of paper; wider reach to different audiences; and faster communication about public health threats such as natural disasters or crime.

Transportation innovations, such as ride-sharing applications and self-driving cars, are having an impact on how community members travel. The participants noted that this could be a threat to the auto industry, which depends on individuals purchasing and driving personal vehicles. The participants also noted safety concerns with self-driving cars, such as the ability to hack into car computers and possible failure of car computer systems. On the other hand, ride shares are often cheaper, quicker, and more reliable than other forms of transportation, and they go to areas of the community where taxis or public transit are not always available. Competition between ride sharing companies could spur improvement in quality and price. Ride sharing may also be better for the environment, if it reduces overall gasoline consumption and emissions. Self-driving cars, if realized, may lead to fewer accidents from drunk or distracted driving.

The participants reported that new laboratory methods producing faster lab results will result in quicker client investment[3], disease investigation, and treatment, though a possible threat is lower accuracy. Tele-medicine for check-ups and follow-ups is becoming more widely available. The opportunities are easier connection to clients; better community between providers; better relationships with clients; and ability to address gaps in access to care through technology. Tele-medicine does pose challenges to obtaining patient consent, however, and may affect the rate of no-shows on the part of providers and patients.

In general, the higher degree of automation and integration of technology into everyday life has its benefits and drawbacks. The group noted an increased threat of information breaches or hacking, and less personal interaction as a result of "becoming tech heavy." The noted opportunities are increased speed, convenience, and larger reach for both the individual and organizations/companies. Street cameras are more prevalent and potentially reduce crime and violence, though they also raise ethical concerns and heighten demand for real time response to issues. Healthy living apps and devices have

[3] "Client investment" was the term used by FOCA participants and was interpreted to mean that the client becomes "invested" in their health more quickly if they receive lab results in a timely manner, when the health issue is at the forefront of their minds.

become more popular and encourage physical activity, healthy eating, and other healthy habits, though if users are misguided these tools can lead to a false sense of wellness. The gradual change in shopping patterns, most notably from brick and mortar retail to online shopping, has impacted the retail industry and has led to the loss of retail and sales jobs locally. The participants thought this trend could be an opportunity to retrain the workforce to secure higher paying jobs.

Environmental

Participants discussed climate change as a major environmental force of change. Climate change has been linked to re-emerging diseases and migration of diseases, such as Dengue fever and Zika. The biggest threat is increased morbidity and mortality. There is also an opportunity for education and awareness to diminish the threat. If new diseases emerge locally and other communities are accustomed to dealing with them, there is an opportunity for collaboration and new partnerships. Participants noted there will be limited infrastructure to respond to new and emerging infectious diseases and vectors for disease if we disinvest in science. If more funding occurs, new innovations could occur in this field. Participants also noted the increased instances and severity of natural disasters due to climate instability and the resulting health challenges. They saw this as an opportunity to increase preparedness and to rethink how the community develops land.

The group noted that St. Louis has large disparities in terms of environmental quality. Poor management of the built environment could lead to brownfields and other pollution. Poor built environment has also been linked to higher rates of obesity and chronic disease. The zoning process is highly politicized and impacts the built environment. The participants thought that community pride and ownership could inspire collaboration to improve the built environment. Participants noted increased attention to the connection between health and the built environment, and the need for safe, quality green spaces.

Participants referred to several forces related to regulations on smoking, pollution, water, and energy. Threats to smoking regulations are non-compliance, tension, and exploitation of loopholes. There is an opportunity to increase education and prevention efforts to decrease tobacco use. Weakened environmental regulations at the state and federal level have led to increased pollution, which may lead to increased health issues such as asthma and heart disease. This provides an opportunity to double down on local level legislation and to use less conventional partnerships across industries. Examples include connecting community action agencies or connecting energy efficiency services with community benefits services. The City of St. Louis has begun a building initiative to decrease water and energy usage to a baseline level. It is possible that the state will overturn this initiative. Additionally, the business community may take time to adopt these standards, especially if there is increased expense to make necessary changes for more efficient use. Should this initiative be successful, it could move beyond the city and could influence regional, state, or national actions regarding buildings and air pollution. The dismantling of the Environmental Protection Agency due to political and economic interests and the increased focus on coal and oil will negatively affect air and water quality.

Changes to food production and distribution have profoundly affected local communities. Food deserts result in poor food access, high costs to maintain markets, and increased difficulty reaching people in need. Opportunities to improve food access include fresh mobile markets, farmer's markets, and additional funding and support. The increased production of organic foods has positively influenced the way people farm and results in less chemical use and run off into water sources. However, organic foods tend to be more expensive and could exacerbate existing disparities related to food access and nutrition.

Medical/Scientific

Participants identified the legalization of marijuana as a force of change. Potential threats from legalizing marijuana include addiction challenges and impacts on existing medical protocols. Opportunities from legalization would be increased tax revenues put towards initiatives such as healthy schools; and potential use of marijuana as a pain management drug, which may reduce over-prescription and abuse of opioids.

The increasing prevalence of personalized medicine and pharmacogenomics has multiple threats and opportunities.[4] Potential threats include the learning curve for providers; changes in resistance to drugs and treatments; and potentially harmful experimentation. Increased instances of drug resistant pathogens could contribute to outbreaks and emerging diseases. Decreased medical errors, decreased costs, reduced harm, and an increase in impact of medications are opportunities.

Participants noted the strong connection between mental and physical health, especially the impact of trauma on mental health. Stigma associated with mental health issues is a threat. However, there are opportunities to de-stigmatize these issues, especially when a more holistic approach to health and wellness is developed.

The trend toward the population health approach and population management is another force of change. Although we are able to identify underlying social issues that affect health, the lack of capacity and resources (e.g. community service providers) prevents these issues from being addressed fully. The group discussed FitBit and other personalized health devices that are part of the population health and Big Data trend. A potential problem with these devices is that people might not seek medical or expert opinions and may believe they can self-diagnose and treat. However, these devices could provide the basis for seeking treatment, or at least further diagnosis.

The current national and political environment has fostered distrust in the field of science. It is possible that this will carry over into distrust of the medical community and a loss of value of professional expertise, especially with the rise of medical websites such as WebMD. A potential opportunity is to identify and initiate collaborations between experts and community members. In addition, the political climate has introduced potential changes to the Affordable Care Act (ACA) and Medicare/Medicaid, which are causing confusion and uncertainty. Loss of services could result in a decline in health status for many people.

Participants noted the importance of research in science and medicine for St. Louis by discussing three related forces of change. Local universities and medical centers are research hubs that provide resources and require individuals to analyze data. Interns help fulfill these research needs. Sunshine requests are another opportunity to assist local research efforts. The Cortex Innovation Community is a hub of bioscience and technology research, development, and commercialization. Likewise, the Donald Danforth Plant Science Center focuses on environmental and agricultural research. These research institutions give St. Louis the opportunity to become an economic and scientific engine and increase knowledge in bioscience and technology.

[4] For more discussion, refer to the Centers for Disease Control and Prevention Genomics and Health Impact Blog Post: "Medication for the Masses? Pharmacogenomics is an Important Public Health Issue."

Participants discussed patient portals and how the presence of multiple, unlinked systems result in inefficient care coordination. Opportunities include virtual visits that could result in efficiency and savings; better, simpler screening; and patient control and participation.

The divide between St. Louis County and the City of St. Louis skews health data when conducting comparisons among cities and counties and concentrates impacts on population and services. Because poverty is concentrated in portions of the City and largely in North County without the concomitant wealth and resources (which are concentrated in those areas that have less poverty) the social determinants of health are worse in those areas where poverty is concentrated and services are less.[5] However, a merger could be an opportunity to improve health data provision.

Legal and/or Ethical

Participants discussed several laws that potentially may be repealed. The threats from the repeal of gun laws are death, injury, fear, and trauma. The opportunity is protection. The threats from the repeal of the ACA include reduced healthcare coverage (or loss of coverage) and reduced funding of prevention programs. There is an opportunity to fix the ACA through universal coverage. The repeal of Dodd-Frank would result in fewer consumer protections (for example, against predatory lending), but the opportunity is less regulation. Related to this is the delayed implementation of the Department of Labor's Fiduciary Rule, which requires financial advisors to act in the best interests of their clients, and to put their clients' interests above their own. The delay or repeal of the rule may reduce consumer protections. Increased awareness of this issue may result in more cautious financial decisions among consumers.

The Right to Work legislation threatens the balance of power between workers' and owners' capital, though some argue it creates opportunity for economic development. The threat associated with the Earnings Tax (in the city) is less general revenue due to a declining population. Potential opportunities include budget reform and diversifying sources of city revenue.

Increasingly restrictive immigration regulations are problematic because they can lead to increased xenophobia (particularly Islamophobia), and loss of competent workforce. However, there is opportunity to initiate fact-based reform on the immigration vetting process.

As government officials make the effort to roll back reproductive rights, threats include decreased health services for women, such as mammograms and an increase in unwanted pregnancies, which have potential social implications. There is an opportunity for advocacy and education to mitigate these changes.

Religion/Spirituality

Decreasing membership at religious congregations is a national trend. Participants also mentioned that religious leaders are not living in the neighborhoods they serve and the connections between neighbors and institutions are frayed. The potential threats resulting from the loss of community anchor institutions include more fear and less community cohesion. However, there is an opportunity for congregations to change the way they do business or operate. Population dispersion contributes to declining membership as people begin to live away from their congregations. As people become more physically distant from their places of worship, they will naturally be less connected to each other. In

[5] For more information about the connection between poverty and health outcomes, see Chapter 3, Place Matters: Neighborhood Resources and Health, from *For the Sake of All*.

addition, as people move away, the area loses tax dollars, which will have a negative impact on education. This shift is an opportunity for religious leaders to create new, intentional relationships based on other factors besides proximity.

Changes in technology often result in cultural shifts between generations. These shifts sometimes cause tension between generations, which prompts younger people to actively seek out other communities. Ultimately, such tension holds the entire community back.

The increased popularity of non-traditional spiritual practices such as yoga, meditation, and martial arts may arouse fear and suspicion of such practices by outsiders. However, new practices can be an opportunity to explore the link between spirituality and health. Similarly, as the Muslim population grows and as diversity increases in general, there is a greater prevalence of violence against the Muslim community and other groups. As diversity increases, there is more isolation among different groups and communities due to fear of the “other”. However, growing diversity is an opportunity to stretch assumptions and gain an understanding of different communities, which can eliminate fear. As there is increased understanding, acceptance, and creativity between different communities, everyone can embrace a more positive future.

Appendix B: FOCA Tables

** Indicates a force of change that was identified as a priority by the CHAT

Contents

MEDICAL/SCIENTIFIC

Forces of Change	Potential Threats	Potential Opportunities	Discussion
Legalization of marijuana	• Impacts on existing medical protocols • Addiction challenges	• Tax revenue towards healthy schools, etc. • Impact on opioid issue, e.g. move pain management drug of choice	Marijuana could be a better option to pain management than opioids.
Personalized medicine and pharmaco-genomics	• Learning curve for providers • "Testing" perception on people • Change in resistance	• Decrease medical errors • Decrease cost • Decrease harm • Increase impact of medications	"Personalized medicine and pharmacogenomics": Our group thought this could seem threatening – like harmful or potentially harmful experimentation rather than something helpful.
****Connection between mental and physical health, e.g. impact of trauma**	• Stigma associated with mental health issues	• More holistic approach to health and wellness	It is important to note the connection between mental and physical health, especially the impact of trauma. There are opportunities to de-stigmatize mental health issues. We need a more holistic approach to health and wellness.

			More holistic approach: The more we look at mental health as part of physical health, the less stigmatized it will become. It's all connected and should be treated that way. Going in for a physical is pretty well accepted in most cultures in our country. Going to a psychiatrist seems not to be as universally acceptable across cultures in our country. Bringing them together is helpful for reducing the possibility of stigma and, so far as I can tell, it is also beneficial in treatment to look at the whole person (body/mind/spirit).
Trend toward population health and population management	● Identify social issues and lack the community service providers/ capacity to address	● Better management of transitions of care ● Opportunity to identify and address socioeconomic status	Identify social issues and lack of capacity to address: I think that it means that we know the social determinants of public health (adverse and protective factors), but it's frustrating, because now that we know what they are and the community expects us to do something about them, what do we do when there isn't enough capacity to address them? I would argue that the same frustration exists in the context of substance use disorder -- not enough treatment available. And, private health care resources are often limited by the lack of insurance coverage or personal wealth to pay for them. Not much difference in the population health (I would call it public health) sphere with the lack of resources for those who have the greatest need of them.
National/ political environment creating distrust of science	● Will carry over into distrust of medical community ● Loss of value of professional expertise (e.g. WebMD)	● Identify collaborations between experts and community members	Identify collaborations: I think that often the medical and scientific experts are seen as positioning themselves as "other than the community", because they have all of this knowledge and expertise. However, if that which seems to separate them from the community -- their scientific and medical knowledge -- is no longer something that gives them greater stature in the community, then, if we (those who value science, medicine, data) want to accomplish anything, we need to figure out how to connect with the community, gain their trust, and demonstrate that we are one of them and somehow there are benefits to science, medicine and data. Necessity is the mother of invention. If the value of science and medicine are not a given, we have to work together with the community to see how we can continue to improve society.
****Universities**		● Research help	Local universities and medical centers provide resources and

		• Interns	analyze data. Interns help fulfill these research needs.
****Medicare/ Medicaid/ ACA**	• Confusion • Loss of services leads to decreased health		The potential changes to the ACA are causing confusion and uncertainty. Loss of services could mean a decline in health status for many people.
FitBit = Personalized + Population/ Big Data	• People might not seek medical or expert opinions and believe they can self-diagnose and treat.	• An opportunity is that it could provide the basis for seeking treatment, or at least further diagnosis.	FitBit and other personalized health devices are part of a "big data" trend.
Patient portals	• Multiple systems – not linked • Insufficient understanding	• Virtual visits results in efficiency and savings • Better, simpler screening • Patient control and participation	Multiple systems: Maybe it means that the "patient" could be getting divergent information because there is no primary care doctor to unify all of this. Insufficient understanding: The "patient" is not trained to connect all of this and may be getting information, but doesn't have the foundation to appropriately deal with it.
City/ County divide	• Skews data • Concentrates impacts on population and services	• Merger: data, provision	Skews data: It means all data. I think it only skews when we begin doing comparisons among cities and counties. Concentrates impacts: Because poverty is concentrated in portions of the City and largely in North County without the concomitant wealth and resources (which are concentrated in those areas that have less poverty) the social determinants of health are worse in those areas where poverty is concentrated and services are less (lack of funding). Merger, data, provision: I think it means there are incentives to merge corporately the City and County. But, we can also merge data. Not sure what provision means.
Cortex Innovation Community		• Econ and science engine (?) • Convening; knowledge	This is a description from their website: Founded in 2002, Cortex is the Midwest's premier innovation hub of bioscience and technology research, development and commercialization, serving as the anchor of St. Louis' growing ecosystem for innovative startup programs and established companies. This is a major part of our burgeoning startup community. Perhaps

			they could be a partner to help us use innovative approaches (apps, etc.) to approach public health issues. Not much of a threat unless one considers that this will cause gentrification. But, the area was largely abandoned before its arrival 20 years ago. It started as wet lab space (I cannot remember the name of it) and then converted into the Cortex development.
Sunshine Requests		• Local research	Local research: When we proactively present data and information we educate. But, generally sunshine requests aren't very helpful. Often they are used as a "gotcha" or they aren't used, because not seen as "newsworthy".
Drug Resistant Pathogens	• Outbreaks • Emerging diseases		

ENVIRONMENTAL

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Re-emerging disease due to climate change, and migration of disease (like Zika, Dengue fever)**	• Morbidity and mortality	• Education and awareness • Collaboration	We are concerned about issues related to climate change, such as reemerging diseases and migration of diseases. Collaboration: Any time there are new diseases for our locale, particularly if other locales are accustomed to dealing with them, an opportunity exists for collaboration. The very fact that something is beyond our experience gets us out of our comfort zone and we have an opportunity to look for new collaborations/ relationships/ partnerships.
Built environment	• Brownfields • Obesity • Zoning and politics	• Community collaboration linked to pride and ownership	Zoning and politics: Someone must view zoning and politics as potential threats. Zoning can be limiting on what one does with property, but it can also be protective by limiting risks and letting property owners know that their property will not be harmed by a problematic use locating next to them. Politics can exist as easily in an un-built environment as easily as it is located in a built environment. The abandonment / disinvestment that's happened in parts of our community that has led to vacant buildings, underdeveloped

			neighborhoods, etc. is a major stressor and potential health issue. Zoning and politics directly affects this. Why don't we have more investment in North St. Louis / North St. Louis County? There are a lot of politics at play here – not to mention the underlying racism and bias that leads to the political decisions.
Smoking regulations	• Non-compliance • Tension • Loopholes	• Prevention • Education	
****Environmental inequality (by area)**	• Reduced quality of life	• Advocacy • Community engagement	Environmental inequity by area is a top 3 priority.
Food deserts	• Logistics • Cost of maintaining markets • Difficulty reaching people in need	• Fresh mobile markets • Farmer's markets • Non-profits • Funding and support	
****Pollution (weakening of regulations at the state and federal level)**	• Increased pollution and related diseases and health issues (asthma, heart disease, etc.)	• Double down on local level legislation • Cross industry, less conventional partnerships (e.g. building corps/ healthcare)	Pollution and the potential weakening of regulations may lead to increases in disease (such as asthma). This provides an opportunity to double down at the local level and to use less conventional partnerships. Examples include connecting community action agencies, or connecting energy efficiency services with community benefits services.
Increased natural disasters due to climate instability	• Increased instances of more severe natural disasters and resulting health challenges	• Increased preparedness • Rethink how we develop land	There will be an increasing number and severity of natural disasters. There is an opportunity to increase preparedness and how we address development.
Organic foods	• More expensive • Opportunity to exacerbate existing disparities	• Positive influence on the way people are farming • Less chemical use and run off in water sources	
Buildings decrease water and energy usage to baseline (city only right now)	• State will overturn • Business community may take a while to adopt • Increased expense to make necessary changes for more efficient use	• Could move beyond the city and could influence what we do to our buildings and air pollution	This specifically refers to City of St. Louis effort requiring buildings over 50,000 square feet to benchmark and report their energy & water use annually (with the idea that they will then reduce the use of both, saving money and reducing environmental impact.) This effort in the City is a Positive thing that could potentially be expanded to the County.

More attention to the connection between health and the built environment. Need for more <u>safe</u> green spaces.	• Connection between industries could be better		We recognize the connection between access to green space and health. We have a lot of green space but is it quality space and safe for everyone?
****Dismantling of EPA; focus on coal/oil**	• No clean air/H_2O		The dismantling of the EPA and increased focus on coal and oil will lead to no clean air or water.
****New/emerging infectious diseases/vectors for disease**	• Lack of infrastructure to respond	• New innovation in service	We lack infrastructure to respond to new and emerging infectious diseases if we disinvest in science.

POLITICAL

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****County – City Merger**	• Loss of earning tax-c	• Larger area + population – consolidation of resources	We focused on fragmentation, particularly the city county division, population loss, and the economic consequences of those problems. Loss of earning tax-c: The City pays earnings tax and the County does not pay earnings tax.
****City has dwindling population**	• Loss of tax revenue	• Urban renewal • **Mill Creek Valley NGA, Lafayette Square, Cortex, BJC	
****Violent Crime 'Guns'**	• Personal safety, anarchy, disengagement	• Prevention • Social reform, law enforcement, education	We thought the focus should be on violent crime and racial equity. It has an impact on how people see the community, and whether they choose to visit or invest. We need to focus on prevention, not just law enforcement. We need upstream approaches – like growing education and social reform.
****Budgetary Constraints**	• Loss of critical services	• Restructuring Allocation/ reducing services	

****Change in Political Leadership (All levels)**	• Change in values and priorities • Weaker communities	• Change in values/ maybe hope for new ways of dealing with problems	
Media Perception	• Weaken/negative characterizations		
Equity of Tax Abatements	• Areas in need do not receive it • Changes in Equalization	• Equitable process • Equity lens applied to budget decisions & allocation of resources	We discussed the degree of equity in tax abatements. The central corridor gets a lot of attention, but if you go to the north part of the city, there isn't the same level of attention. This impacts violent crime. Opportunities are limited based on the ability to provide equity. Overall the tax abatements need to allocated more equitably.
Growing hidden populations (drug users-mentally ill/homelessness)	• Fear • Loss of diversity in the community • Loss of compassion • Founding values & principles	• Awareness of the struggles of others • Realization that we're all in this together • Evaluation of organizations that work for the cause of refugees and immigrants	
****Community Agencies Are Silos**	• Lack of information sharing	• Enhanced communication • Better outcomes • Efficiency	We talked about communicating through our agency silos; in the future, we will have to share more data with each other.

SOCIAL

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Political Challenges from Elected Officials: Pres. (Fed.), Gov. (State), Mayor (Local)**	• Decreased funding • Lack of support • Equity in support	• Advocacy • Representing people who cannot represent themselves • Continuing education • Equality in education	The social and political forces are enmeshed at all levels. It is a challenge. The opportunity is for more advocacy to assist the individuals who cannot represent themselves.
Economic	• Direct Impact which affects funding, LOS – Environmental Quality	• Collaborate • Creative shift (how we do things)	Collaborate: When you don't have experience with something and someone else does, that provides an opportunity for collaboration/.

	• Denial of services • Divisiveness • Lack of empathy • Life safety		
****Ferguson**	• Violence/Civil unrest	• Racial/Economic Harmony Ferguson Commission	The opportunity here is racial and economic harmony.
Opioid Abuse	• Death/Family strife/loss of income	• Decriminalize Addiction = Disease	
STDs	• Spread of disease	• Increase awareness • Education	
****Defunding of programs**	• Loss of programs o Foreclosure programs o Planned Parenthood o Reduction of city funds o Arts o Parks	• Restructure, reorganize, and consolidate programs to prevent duplication	
Changing Diversity	• Anger, hostility, inclusion, no sense of community & common ground	• Mobilizing, talking with others in community and working together	
Change in local leadership	• Shift in priorities	• Shift in priorities	

TECHNOLOGICAL

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Communication (Social Media)**	• Documenting Reach • False/Inaccurate info • Software changes: Ever evolving changes that many cannot keep up with. • New 'addiction' • Bullying • Lack of social skills	• Faster community engagement • Educational method • Less paper • Wider reach • Faster communication (i.e. disasters, crime)	The threats for communication include inaccurate/false information, bullying, and lack of social skills because people don't talk face to face anymore. The benefits include more opportunities for community engagement, and it is easier to share news (natural disasters and crime).
Lab Methods	• Accuracy	• Client invested faster	

(faster results)		• Disease investigation faster • Treatment faster	
Tele-Med Check-up/Follow-up	• Consent • Not available for appointment	• Easier connection to clients • Better community between providers • Better relationship with client	Telemedicine offers possibilities to interact and do electronic health records. It can address gaps in access to care through technology.
Street Cameras	• Ethical concerns • Real time response to issues	• Reduce crime violence	
Becoming Tech Heavy	• More opportunity to breach info (hacking) • Less personal interaction	• Faster • Convenient • Larger reach	
Healthy living apps/devices	• False sense of wellness	• Encourages physical activity, eating healthy and other wellness	
****Transportation innovation (Ride sharing, self-driving cars)**	• Car industry • Fear of safety concerns (hack/self-driving cars/computer fail)	• Competition can spur improvement in quality and price • Quicker response • Less accidents • Better for environment	Ride shares are cheaper and quicker, and they show up.
****Change/innovation in public transportation (Uber)**	• Competition to taxi (people losing jobs)	• Decreased drunk driving	There has been a decrease in drunk driving because people can use shared ride apps.
Change in shopping patterns (online)	• Loss of retail/sales jobs locally	• Retrain workforce for higher paying jobs	
Increased auto migration	• Loss of jobs	• Retrain workforce for higher paying jobs	

ECONOMIC

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Lack of**	• Affects worker productivity	• More prevention focused	Lack of affordable healthcare will affect worker productivity due to

affordable healthcare	due to less days of work	on public health	lost days of work.
Inequity in interest rates for communities of color	• Lower home ownership & economic mobility	• Eliminate disparity in wealth distribution	
****Passage of Right to Work in State of Missouri**	• Weakens worker rights, pay, & benefits		This weakens worker' rights and benefits, and decreases access to healthcare.
Possible tariffs on Mexican imports	• Decreases access to affordable healthy food		
Uncertainty about immigration policies	• Economic downturn in all sectors		Uncertainty about immigration policy will affect many sectors and increase costs.
Decrease in funding for higher education	• Less access to higher education. Impacts economic mobility		Decrease in funding for higher education affects economic mobility.
****Budget cut for State Public Health Department**	• Fewer prevention programs lead to poor public health	• Big Pharma makes more $	
****Repeal of ACA**	• Loss of healthcare coverage • Limitations on benefits	• Advocate for a more developed healthcare plan • Equalize costs to all insured	The repeal of ACA is an important change that could reduce health insurance and funding coming to public health.

SPIRITUAL/RELIGIOUS

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Decreased numbers of congregations and members**	• Less impact • More fear • Less neighborhood anchor	• Transformation: Change the way you do business or operate.	Congregation numbers are decreasing. Leaders are not living in the neighborhood. The connections between neighbors and institutions are frayed.
****Dispersion – Pop. Shifts live away from Cong.**	• Less connection (naturally) • Impact on Education	• Create new, intentional relationships	New intentional relationships: The church must figure out how to create new relationships given the lack of population around the church.

			Impact on education: as people move away you lose tax dollars
****Culture/ Generation Shift**	• Tension between generations holds us back	• New ways on horizon	Cultural and generation shift with technology. Tension: Younger people are finding other communities.
Non-traditional: Yoga, Meditation, Marital Arts	• Fear, Suspicion	• Link between spirituality & health; more inclusive	
Growth of Islam	• Increased violence against Muslims • Isolation from each other due to fear of "other"	• Stretching assumptions: Get an understanding, eliminate fear.	We are becoming more isolated in the US. There is increased violence against Muslims and more isolation from each other. There is an opportunity to stretch assumptions.
Increased diversity (& related fear)	• Violence	• Increased acceptance, creativity; embrace the future	

LEGAL/ETHICAL

Forces of Change	Potential Threats	Potential Opportunities	Discussion
****Gun Laws**	• Death, injury, fear, trauma, population decrease	• Protection	The threats from the repeal of gun laws are death, injury, fear, and trauma. The opportunity is protection.
****ACA**	• Healthcare coverage: change or loss of • Funding prevention	• Fix it • Universal coverage	The threats from the repeal of the ACA include reduced healthcare coverage, prevention, and funding. There is an opportunity to fix the ACA with universal coverage.
Right to Work	• Balance of power between workers & owners' capital	• Economic development?	
Earnings Tax	• Less general revenue • Declining population	• Reform could be living within your budget. • 'Diversify' sources of revenue	
Dodd-Frank repeal	• No protection	• Less regulation	
Fiduciary Rule	• No protection	• Create more caution	
Immigration regulations	• Islamophobia • Loss of competent workforce	• Fact-based reform on vetting process	
****Effort to roll back**	• Decreased health services	• Advocacy, education	The threats include decreased health resources for women, such as

reproductive rights	to women ● Unwanted pregnancies		mammograms. There is an opportunity for advocacy and education.

Saint Louis Local Public Health System Assessment

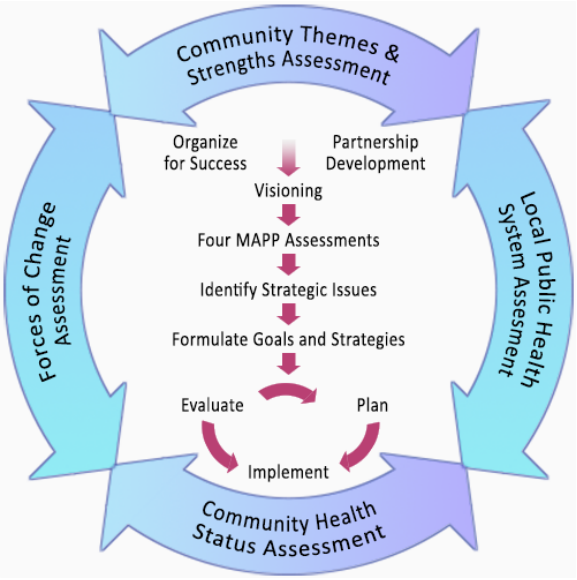
November 2017

Prepared by the Illinois Public Health Institute

Table of Contents

Introduction

The St. Louis Local Public Health System Assessment (LPHSA) was conducted on May 22, 2017 as one of the four assessments in the Mobilizing for Action through Planning and Partnerships (MAPP) process. MAPP is a community-driven strategic planning framework that guides communities in developing and implementing efforts around the prioritization of public health issues and identification of resources to address them as defined by the 10 Essential Public Health Services. The MAPP process includes four assessment tools, including the Local Public Health System Assessment.



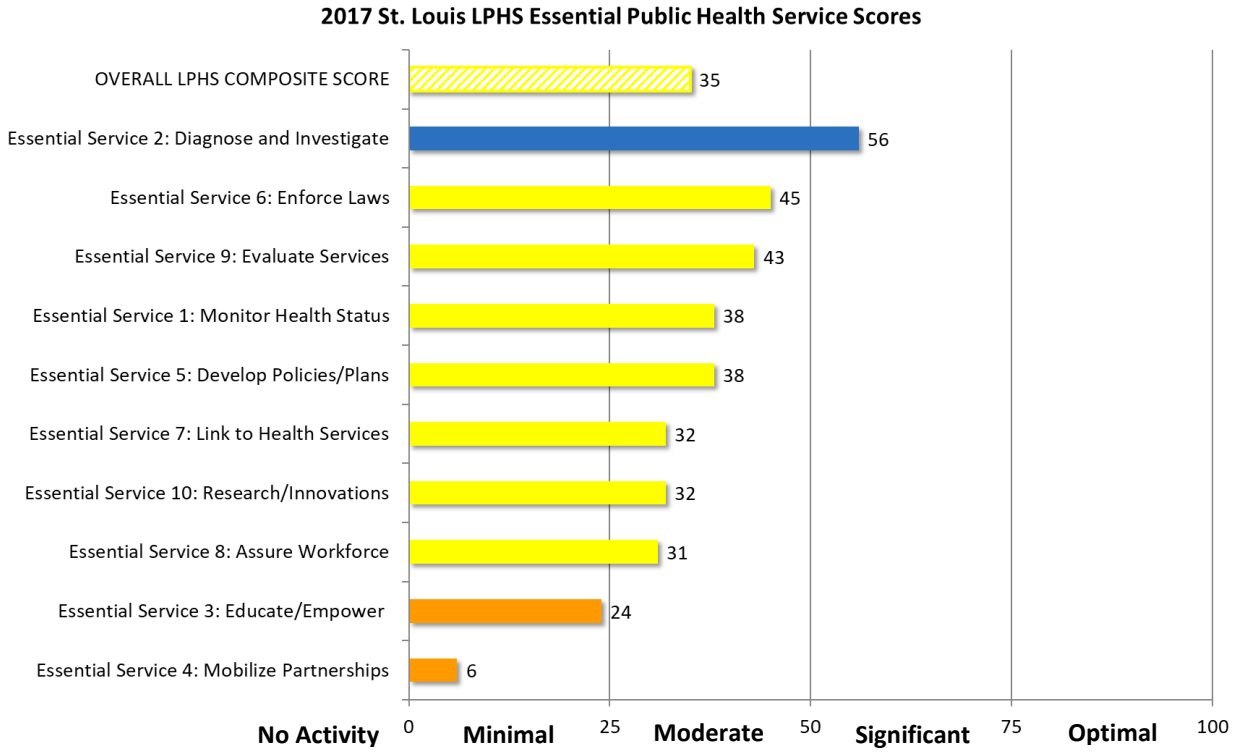
The **Local Public Health System (LPHS)** is defined as the collective efforts of public, private, and voluntary entities, as well as individuals and informal associations that contribute to the public's health within a jurisdiction.

Source: NPHPS

The LPHSA, described in detail in the following section, is used to understand the overall strengths and weaknesses of the local public health system based on the 10 Essential Public Health Services. Results from the LPHSA will be analyzed with the reports from the other three assessments in the MAPP process, which include the Community Health Status Assessment (CHSA), Community Themes and Strengths Assessment (CTSA), and the Forces of Change Assessment (FOCA). Strategic analysis of these assessment results will inform the identification of prevailing issues impacting the health of St. Louis. Issues will be strategically prioritized with consideration of a variety of factors, including the current progress and action on the priorities identified from the last assessment and planning cycle. Goals and action plans will be developed or updated for each of these priority health issues. These action plans will be implemented and aligned to improve the local public health system and ultimately the health and wellbeing of the St. Louis community.

Executive Summary: Cross-Cutting Themes from the St. Louis Local Public Health System Assessment

The average scores by Essential Public Health Service (EPHS) from the May 22, 2017 St. Louis LPHSA are pictured below. The highest score was EPHS 2, Diagnose and investigate health problems and health hazards in the community. The lowest score was EPHS 4 – Mobilize community partnerships to identify and solve health problems. The overall system performance composite score was 35 (moderate).[1]



Throughout the discussions regarding how well St. Louis addresses the 10 Essential Public Health Services, a number of cross-cutting themes emerged in the dialogue across groups. The themes arose as strategic areas to address for improved functioning, capacity, and effectiveness of the local public health system (LPHS) in St. Louis. These themes are detailed on pages 7 through 9.

[1] The Health Equity Measures were not incorporated into the 2017 EPHS composite scores. Please see page 19 for further explanation.

Assessments and Data Collection

LPHS organizations conduct many assessments. As Community Health Assessments (CHAs) are a required activity for governmental public health department accreditation and Community Health Needs Assessments (CHNAs) are required for non-profit hospitals under the Affordable Care Act (ACA), more people are participating in the process, gaining expertise, and making the process and data more meaningful. Unfortunately, the required timelines differ with health departments being on a 5-year timeline and hospitals on a 3-year timeline. This creates a challenge for coordinating assessments. The LPHS lacks a system-wide assessment of the public health workforce. LPHS partners collect a great deal of data for data-driven decision making. However, even with an abundance of data the LPHS is not seeing the level of desired improvement over time. Furthermore, the data lack disaggregation beyond a few variables such as age and race, which can inhibit the ability to assess smaller populations that may experience health disparities. Opportunities for improvement include: coordinating LPHS assessments; connecting “boots on the ground” to data; improving the stratification of data and the linkage of traditional health indicators to social determinants data; conducting a system-wide workforce assessment; and creating a community resource dashboard to compile data and research findings from the community.

Community Engagement and Communication

LPHS partners engage community members and stakeholders, and regularly gather input from community members. Community partnerships between research and practice are strong. Risk communication and emergency preparedness communication is well coordinated at the organizational level, though the information does not filter down to the small community organizations and residents as well as it could. Constituency development is somewhat weak and largely based on “who you know” as opposed to cultivating new relationships; the LPHS lacks a comprehensive list of community partners and thus key people are left out of decision-making. Furthermore, inclusion of marginalized populations is often a one-time event rather than a systematic process. Opportunities for improvement include: engaging community

members outside of the public health sector; creating reports tailored to different audiences; being more inclusive and accessible when engaging constituents; and giving community members more authentic voice in decision-making.

Partnership and Collaboration

LPHS organizations partner and collaborate in many ways, including data collection and sharing, health promotion and education, policy development, service provision, and research. The increased city and county collaboration is notable and there is momentum for increased collaboration across sectors outside of what is considered traditional public health. While these developments are promising, the LPHS remains highly fragmented and siloed, resulting in a great deal of duplicative work. An area of weakness is partnering and collaboration in implementation of shared solutions. Areas of opportunity include: expanding the role of smaller LPHS organizations and community members in a variety of EPHSs; incentivize collaboration in grants; increasing joint publications between academic and public health practice; and promotion of the public health system to the business and innovation community.

Action and Accountability

As described above, the LPHS conducts many assessments, but the data are not translated into action. Likewise, a weakness for partnership and collaboration is moving from individual to collective action and implementation. Areas of opportunity include: scaling projects to pilot at the community level; maintaining the ThinkHealthSTL dashboard to improve accountability; improving integration of plans that already exist and harmonizing plans with funders; and better employing professional knowledge and expertise to drive action and accountability.

System-wide Workforce Development

The LPHS has knowledgeable public health staff, good leadership, and high potential for the existing talent in the region. The LPHS lacks workforce capacity in several areas, such as service provision (particularly behavioral health) and emergency preparedness. Other areas of weakness include lack of diversity and difficulty with recruitment and retention. Areas of opportunity include: reviewing barriers to hiring; partnering with local academic institutions to conduct a comprehensive public health workforce assessment; increasing continuing education and professional development opportunities; more intentional connections between Human Resources and hiring directors; and increase the ability (time) of public health staff to contribute to research and innovation.

Determinants of Health/Health Equity

The LPHS has gaps in access to care due to inadequate language and interpretation services, lack of access to transportation, and lack of behavioral health services. Lack of trust from marginalized groups is a barrier to engagement in many EPHSs including assessment, constituency development, policy development, service provision, evaluation, and research, among other areas. Opportunities for improvement include: addressing the language we use to talk about health inequities; promoting a common understanding of the scope of public health and the EPHSs that includes social and structural determinants of health; utilizing existing racial

equity tools; and not only talking about health equity but actually changing the systemic and structural issues that create avoidable disparities.

Elevate Public Health as a Priority

Public health captures the public's attention during emergencies but can quickly fall off the public's radar when the emergency is over. When there is a budget crisis, public health is often the first area to be cut. Dependence on grant funding rather than consistently being part of the normal budget process threatens the sustainability of the public health organizations, which are subject to the ebbs and flows of grant periods. This reactionary approach negatively affects funding and sustainability for public health activities. Opportunities include building a culture of health to make public health a priority; telling the narrative of why we engage in public health activities; and elevating the innovative work that is occurring in the LPHS.

Policy

The LPHS has demonstrated willingness to take on policy reforms and has had some recent successes. However, the LPHS is short on resources for policy and therefore much of the work is reactive rather than proactive. Opportunities for improvement include conducting health impact assessments to measure the impact of current policies and procedures; and involving more community partners and residents early in the policy development process. The LPHS should also allocate time and resources to the review of existing policies.

Resources

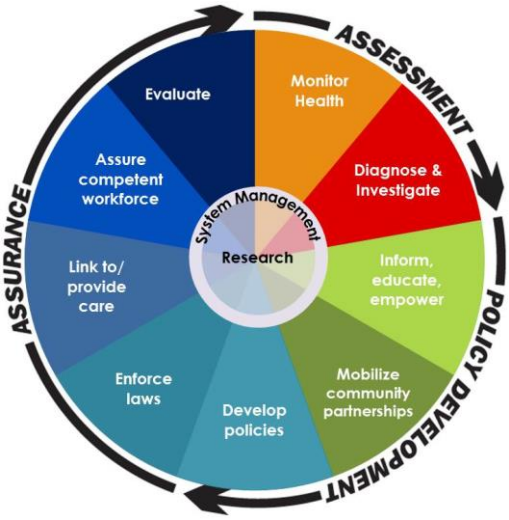
Academic institutions are an important source of funding, expertise, research, and training for the LPHS. The assets and resources that do exist in the LPHS are not well documented or coordinated. Organizational silos prevent the efficient use of resources. The LPHS lacks adequate funding for public health infrastructure development; assessment and evaluation; community engagement; mergers/alignment; policy review and compliance; data capacity; CHIP implementation; and health equity research. Funding sustainability is a concern for many LPHS organizations. Areas of opportunity include: being more intentional about resource documentation as part of the CHA; being more explicit about critical funding gaps; raising public awareness about the importance of funding public health; and aligning funders and organizations to reduce duplication.

The Assessment Instrument

The National Public Health Performance Standards (NPHPS) was a national initiative that developed a set of standardized goals for state and local public health systems and boards of health. This effort was coordinated by the Centers for Disease Control and Prevention (CDC) and six national partners.[2] The NPHPS includes three instruments to assess the performance of public health systems throughout the country. The local instrument is called the **Local Public Health System Assessment (LPHSA)**.

The LPHSA measures the performance of the local public health system – defined as the collective efforts of public, private, and voluntary entities, as well as individuals and informal associations that contribute to the public's health within a jurisdiction. This includes organizations and entities such as the local health department, other governmental agencies, healthcare providers, human service organizations, schools and universities, faith institutions, youth development organizations, economic and philanthropic organizations, and many others. Any organization or entity that contributes to the health or wellbeing of a community is considered part of the local public health system. Ideally, a group that is broadly representative of these public health system partners participates in the assessment process. By sharing diverse perspectives, all participants gain a better understanding of each organization's contributions, the interconnectedness of activities, and how the public health system can be strengthened. **The LPHSA does not focus specifically on the capacity or performance of any single agency or organization**.

The LPHSA is framed around the **10 Essential Public Health Services (EPHSs)** that are utilized in the field to describe the scope of public health. The 10 EPHSs support the three core functions of public health: assessment, policy development, and assurance.



[2] For more information, see "Overview About the National Public Health Performance Standards (NPHPS)."

The 10 EPHSs are defined as:

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health services.
8. Assure a competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal/population-based health services.
10. Research for new insights and innovative solutions to health problems.

For each EPHS in the LPHSA, the **Model Standards** describe or correspond to the primary activities conducted at the local level. The number of Model Standards varies across each EPHS; while some include only two Model Standards, others include up to four. There are a total of 30 Model Standards in the LPHSA. For each Model Standard in each EPHS, there are a series of **Discussion Questions** and **Performance Measures** that further define the intent of the Model Standard.

All **Performance Measures** are designed to be scored based on how well participants perceive that, collectively, all members of the local public health system meet the standard within the local jurisdiction. Results are reached through group consensus, and the following scale is used for scoring:

Optimal Activity (76-100%)	The public health system is doing absolutely everything possible for this activity and there is no room for improvement.
Significant Activity (51-75%)	The public health system participates a great deal in this activity and there is opportunity for minor improvement.
Moderate Activity (26-50%)	The public health system somewhat participates in this activity and there is opportunity for greater improvement.
Minimal Activity (1-25%)	The public health system provides limited activity and there is opportunity for substantial improvement.
No Activity (0%)	The public health system does not participate in this activity at all.

The LPHSA results are intended to be used for quality improvement purposes for the local public health system and to guide the development of the overall public health infrastructure. Analysis and interpretation of data should also take into account variation in knowledge about

the local public health system among assessment participants: this variation may introduce a degree of subjectivity not capable of objective comparison. On a different day, a different group could conduct the assessment and the results could be different. For this reason, it is not advisable to compare scores from one assessment to another. Rather, the scores reflect the perceptions of the group participating at the time, the style of the facilitator, and the rationales shared by participants through discussion, which helps to understand the scores arrived at by participants. The important purpose of the measures is to use them as one tool to determine opportunities for improvement as part of a continuing process of quality improvement.

The Assessment Methodology

The assessment retreat was held on May 22, 2017 and began with a brief plenary presentation to welcome participants, provide an overview of the process, introduce the staff, and answer questions. Following the plenary presentation, participants reported to one of five breakout groups. Each breakout group was responsible for conducting the assessment for two Essential Public Health Services, as follows:

	LPHSA Breakout Groups	
Group	**EPHS**	**Topics**
A	EPHS 1	Monitor health status to identify community health problems.
	EPHS 2	Diagnose & investigate health problems & health hazards in the community.
B	EPHS 3	Inform, educate, and empower people about health issues.
	EPHS 4	Mobilize community partnerships to identify and solve health problems.
C	EPHS 5	Develop policies and plans that support individual and community health efforts.
	EPHS 6	Enforce laws and regulations that protect health and ensure safety.
D	EPHS 7	Link people to needed personal health services and assure the provision of health services.
	EPHS 9	Evaluate effectiveness, accessibility and quality of personal/population-based health services.
E	EPHS 8	Assure a competent public and personal health care workforce.
	EPHS 10	Research for new insights and innovative solutions to health problems.

Each group was professionally facilitated, audio recorded, and staffed by a note taker. The program ended with a plenary session where highlights were reported by members of each group. Event organizers facilitated the end-of-day dialogue, and outlined next steps in the MAPP process.

The 2017 St. Louis LPHSA included supplemental questions for each EPHS to identify how well the LPHS acknowledges and addresses health inequities. The LPHSA supplement is called "System Contributions to Assuring Health Equity," from the National Association of County and City Health Officials (NACCHO) MAPP User's Handbook. A copy of the supplement is in the appendix of this report. This event was the first time the health equity supplement was used for the St. Louis LPHSA. The event organizers (listed on page 15) chose to use this tool to further health equity work in their community, in alignment with the St. Louis CHA/CHIP vision and guiding principles (see page 14).

2017 St. Louis CHA/CHIP Vision and Guiding Principles

Our Vision is: St. Louis, an equitable community achieving optimal health for all.

Equity: Racial equity is an essential component of health equity. We prioritize allocation of resources to remedy disparities and to achieve equity.

Respect: We respect everyone in the community, valuing all cultures and recognizing strengths, needs, and aspirations without judgment.

Integrity: We use the highest standards of ethics and professionalism to maintain integrity and build community trust through honesty and commitment.

Data + Results Driven: We are committed to a transparent, data-driven process, including community feedback, actionable data, and evolving priorities, that results in measurable improvements/outcomes.

Community Engagement + Inclusion: Through intentional inclusion, engagement, and empowerment, we foster a culture of equity that respects and values the contributions of every individual toward a healthy community.

Systems level change + regional shared plan: We achieve systemic change and policy solutions locally and within a regionally shared plan to improve population-level health.

Resources: We collaborate regionally, coordinate existing resources, and develop new resources to accomplish healthy outcomes for all.

Assessment Participants

The City of St. Louis Department of Health (DOH), the Saint Louis County Department of Public Health (DPH), and the St. Louis Community Health Advisory Team (CHAT) developed a list of agencies to be invited to participate in the full day assessment retreat. The event organizers carefully considered how to balance participation across sectors and agencies and how to ensure that diverse perspectives as well as adequate expertise were represented in each breakout group.

The event drew 96 public health system partners that included public, private, and voluntary sectors. The composition of attendees reflected a diverse representation of partners that was apportioned as follows:

Attendees	Constituency Represented
2	City and county governmental agencies
3	Community based organizations
1	Community development organizations
1	Community health planners
1	Economists
1	Environmental health agencies
2	Epidemiologists
1	Foundations
2	Health officer/public health director
2	Health service providers
7	Healthcare systems
2	Health-related coalition leaders
7	Hospitals
1	Local businesses and employers
3	Local chapter of national health-related group
1	Media
1	Ministerial alliances
4	Non-profit organizations/advocacy groups
1	Parks and Recreation
3	Primary care clinics, community health centers, FQHCs
3	Professional associations
1	Public and private schools
1	Public health laboratories
4	Public safety and emergency response organizations

5	Social service providers
2	State health department
6	Substance abuse or mental health organizations
1	The local board of health or other local governing entity
16	The local health department or other governmental public health agency
10	Universities, colleges, and academic institutions
1	Waste management facilities
96	**TOTAL**

Results of the 2017 St. Louis Local Public Health System Assessment

The table below provides an overview of the Local Public Health System's performance in each of the 10 Essential Public Health Services. The average of all EPHS scores resulted in a composite score of **moderate** for LPHS performance.

Composite EPHS Scores for St. Louis			
EPHS	**EPHS Description**	**2017 Score[2]**	**Overall Ranking**
1	Monitor health status to identify community health problems.	38 Moderate	4th
2	Diagnose and investigate health problems and health hazards in the community.	56 Significant	1st
3	Inform, educate, and empower people about health issues.	24 Minimal	9th
4	Mobilize community partnerships to identify and solve health problems.	6 Minimal	10th
5	Develop policies and plans that support individual and community health efforts.	38 Moderate	5th
6	Enforce laws and regulations that protect health and ensure safety.	46 Moderate	2nd
7	Link people to needed personal health services and assure the provision of health services.	32 Moderate	6th
8	Assure a competent public and personal health care workforce.	31 Moderate	8th
9	Evaluate effectiveness, accessibility, and quality of personal/population-based health services.	43 Moderate	3rd
10	Research for new insights and innovative solutions to health problems.	32 Moderate	7th
	Overall LPHS Performance Score	**35 Moderate**	

Each EPHS score is a composite value determined by the scores breakout group participants assigned to the Performance Measures for those activities that contribute to each EPHS.[3] The scores range from a minimum value of 0% (no activity is performed pursuant to the standards) to maximum of 100% (all activities associated with the standards are performed at optimal levels). See page 11 for an explanation of the score values.

[3] The Health Equity Measures were not incorporated into the 2017 EPHS composite results. Please see page 19 for further explanation.

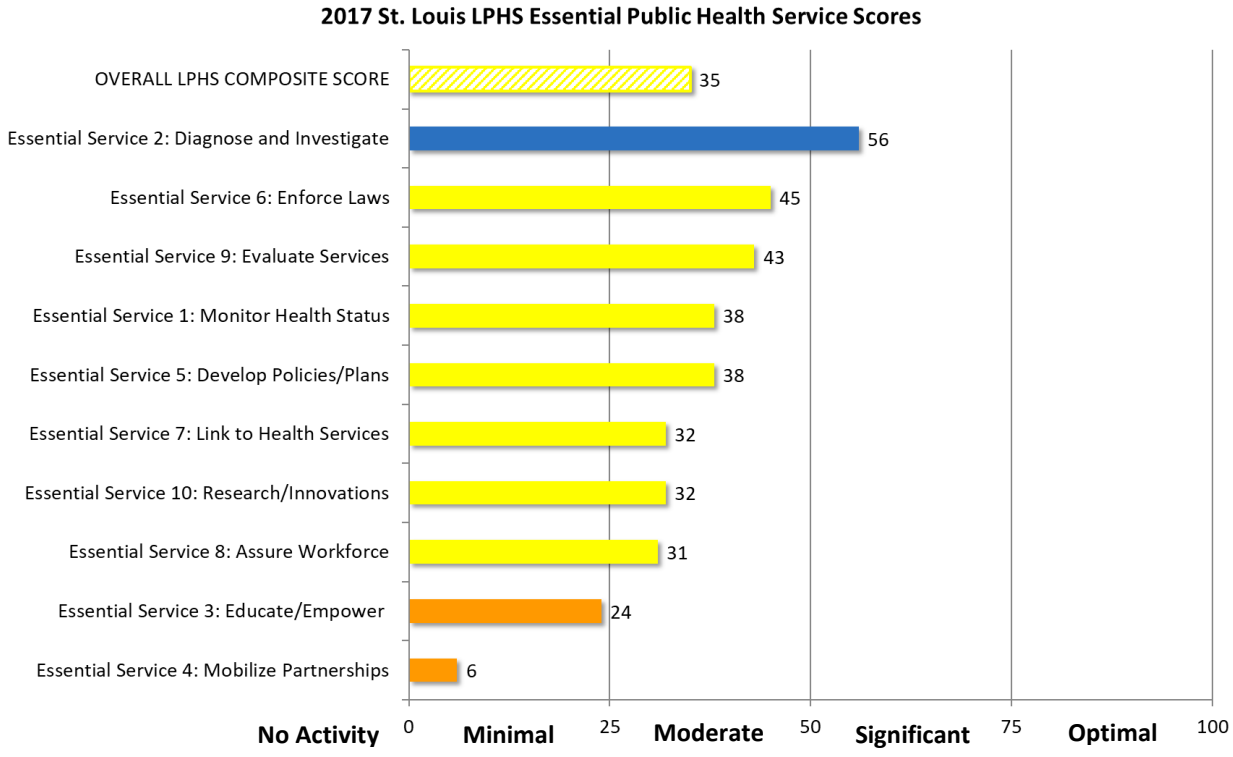
The St. Louis LPHSA participants gave the highest composite scores to the following three areas:

- EPHS 2 - Diagnose and investigate health problems and health hazards in the community (significant)
- EPHS 6 - Enforce laws and regulations that protect health and ensure safety (moderate)
- EPHS 9 - Evaluate effectiveness, accessibility, and quality of personal/population-based health services (moderate)

The participants gave the lowest composite scores to the following three areas:

- EPHS 4 - Mobilize community partnerships to identify and solve health problems (minimal)
- EPHS 3 - Inform, educate, and empower people about health issues, as the three strongest areas of performance for the LPHS (minimal)
- EPHS 8 - Assure a competent public and personal health care workforce (moderate)

The chart below provides a graphic representation of the 2017 Essential Public Health Service scores for St. Louis, from highest to lowest, without the Health Equity Measures factored into the average.[4] Each bar represents a composite score based on the Model Standards for each EPHS.



[4] See page 19 for information on Health Equity Measures.

System Contributions to Assuring Health Equity

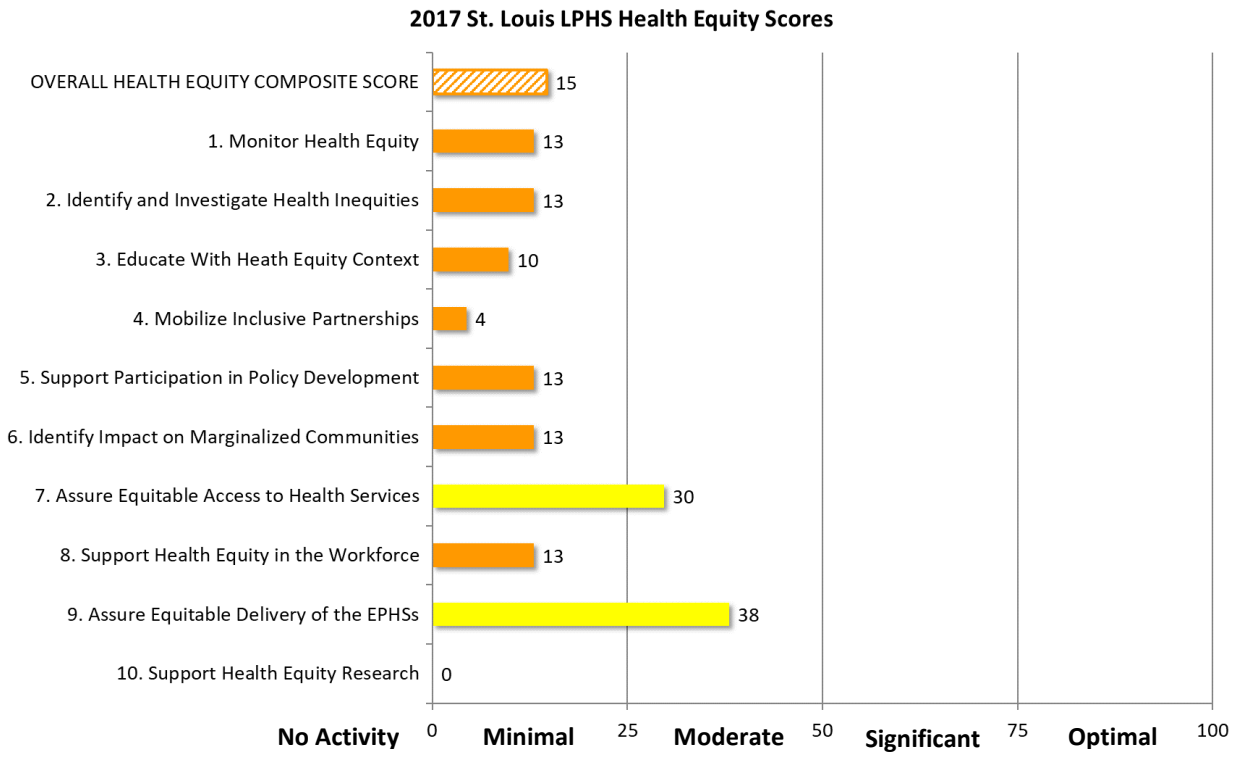
The St. Louis LPHSA included supplemental questions for each EPHS to identify how well the LPHS acknowledges and addresses health inequities. The LPHSA supplement is called "System Contributions to Assuring Health Equity," from the National Association of County and City Health Officials (NACCHO) MAPP User's Handbook. A copy of the supplement is in the appendix of this report. Health equity may be defined as:

> …the realization by all people of the highest attainable level of health. Achieving health equity requires valuing all individuals and populations equally and entails focused and ongoing societal efforts to address avoidable inequalities by ensuring the conditions for optimal health for all groups, particularly those who have experienced historical or contemporary injustices or socioeconomic disadvantage.[5]

City of St. Louis Department of Health (DOH) and St. Louis County Department of Public Health (DPH) organizers selected 1-3 health equity questions for each EPHS. This subset of questions is highlighted in the appendix. Like the Model Standards, each Health Equity Score is a composite value determined by the scores breakout group participants assigned to the Health Equity Measures.

The chart on the next page provides graphic representation of the Health Equity Scores by EPHS, and an overall Health Equity Score for the LPHS. The overall Health Equity Score for St. Louis was in the **moderate** range. The group conversation and findings for the Health Equity Measures are incorporated within the discussion summary for each EPHS.

[5] Adewale Troutman in *Health Equity, Human Rights and Social Justice: Social Determinants as the Direction for Global Health*. Retrieved from the National Association of County and City Health Officials (NACCHO) MAPP User's Handbook.



Health equity is a relatively new consideration for many public health systems. However, there are clearly opportunities to apply health equity to the delivery of the 10 Essential Public Health Services. The partners that comprise the LPHS are at different stages of integrating a health equity lens into their work. Many of the Health Equity Measures score far lower than the Performance Measures because this work is new and unfamiliar to many LPHS partners. The event organizers (listed on page 15) chose to use the System Contributions to Assuring Health Equity Supplement for the 2017 LPHSA to further health equity work in their community, in alignment with the St. Louis CHA/CHIP vision and guiding principles (see page 14).

Scores and Common Themes for each Essential Public Health Service

The following graphs and scores are intended to help the St. Louis Local Public Health System gain a better understanding of its collective performance and work toward strengthening areas for improvement. Each EPHS section contains:

- a table depicting group composition;
- a table with Performance Standard and Model Standard scores;
- a bar graph depicting the average score for each Model Standard and a composite score for the EPHS;
- discussion summaries for the Model Standards;
- a table with the Health Equity Measure scores;
- discussion summaries for the Health Equity Measures; and
- a summary of strengths, weaknesses, and opportunities for immediate and long-term improvement.

Essential Public Health Service 1: Monitor Health Status to Identify Community Health Problems

To assess performance for Essential Public Health Service 1, participants were asked to address two key questions:

What's going on in our community?
Do we know how healthy we are?

Monitoring health status to identify community health problems encompasses the following:

- Accurate, ongoing assessment of the community's health status.
- Identification of threats to health.
- Determination of health service needs.
- Attention to the health needs of groups that are at higher risk than the total population.
- Identification of community assets and resources that support the public health system in promoting health and improving quality of life.
- Use of appropriate methods and technology to interpret and communicate data to diverse audiences.
- Collaboration with other stakeholders, including private providers and health benefit plans, to manage multi-sectorial integrated information systems.

EPHS 1 Group Composition

Partners who gathered to discuss the performance of the local public health system in monitoring health status to identify community health problems included:

#	Organization Type
1	Community health planners
1	City and county governmental agencies
2	Epidemiologists
1	Healthcare systems
1	Local businesses and employers
1	Non-profit organizations/advocacy groups
1	Primary care clinics, community health centers, FQHCs
1	Professional associations
1	Community health planners

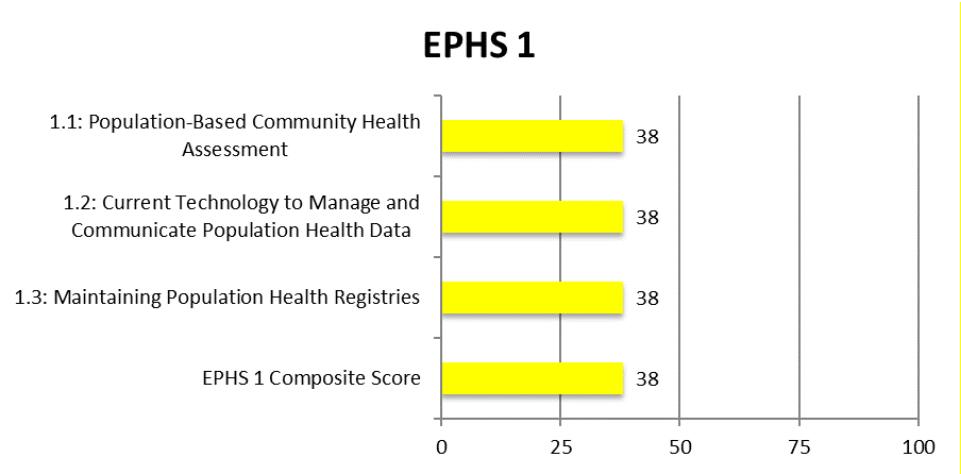
#	Organization Type
1	Public safety and emergency response organizations
1	Social service providers
2	State health department
1	Substance abuse or mental health organizations
1	The local board of health or other local governing entity
4	The local health department or other governmental public health agency

EPHS 1 Model Standard Scores

EPHS 1. Monitor Health Status To Identify Community Health Problems			
The LPHS completes a detailed community health assessment (CHA) to allow an overall look at the community's health. A CHA identifies and describes factors that affect the health of a population and pinpoints factors that determine the availability of resources within the community to adequately address health concerns. This provides the foundation for improving and promoting the health of the community and should be completed at least every three years. Data included in the CHA are accurate, reliable, and interpreted according to the evidence base for public health practice. CHA data and information are shared, displayed, and updated continually according to the needs of the community. By completing a CHA, a community receives an in-depth picture or understanding of its health. From the CHA, the community can identify the most vulnerable populations and related health inequities, prioritize health issues, identify best practices to address health issues, allocate resources where they are most needed, and provide a basis for collaborative efforts to promote the public's health. The CHA also tracks the health of a community over time and compares local measures to other local, state, and national benchmarks.			
1.1.1	Conduct regular CHAs		63
1.1.2	Update the CHA with current information continuously		38
1.1.3	Promote the use of the CHA among community members and partners		13
1.1	Population-Based Community Health Assessment (CHA)	MODERATE	38
The LPHS provides the public with a clear picture of the current health of the community. Health problems are looked at over time and trends related to age, gender, race, ethnicity, and geographic distribution. Data are shown in clear ways, including graphs, charts, and maps, while the confidential health information of individuals is protected. Software tools are used to understand where health problems occur, allowing the community to plan efforts to lessen the problems and to target resources where they are most needed. The CHA is available in both hard copy and online, and is regularly updated. Links to other sources of information are provided on Web sites.			
1.2.1	Use the best available technology and methods to display data on the public's health		38
1.2.2	Analyze health data, including geographic information, to see where health problems exist		38
1.2.3	Use computer software to create charts, graphs, and maps to display complex public health data (trends over time, sub-population analyses, etc.)?		38
1.2	Current Technology to Manage and Communicate Population Health Data	MODERATE	38
The LPHS collects data on health-related events for use in population health registries. These registries allow more understanding of major health concerns, such as birth defects and cancer, and tracking of some healthcare delivery services, such as vaccination records. Registries also allow the LPHS to give timely information to at-risk populations. The LPHS ensures accurate and timely reporting of all the information needed for health registries. Population health registry data are collected by the LPHS according to standards, so that they can be compared with other data from private, local, state, regional, and national sources. With many partners working together to contribute complete data, population registries provide information for policy decisions, program implementation, and population research.			
1.3.1	Collect timely data consistent with current standards on specific health concerns in order to provide the data to population health registries		38
1.3.2	Use information from population health registries in CHAs or other analyses		38
1.3	Maintaining Population Health Registries	MODERATE	38

EPHS 1 Discussion Summary

Dialogue in the EPHS 1 breakout session explored LPHS performance in monitoring community health status through community health assessment (CHA), using technology to manage and analyze population health data, and maintaining population health registries. Overall performance for EPHS 1 was scored **moderate** in St. Louis and ranked fourth out of the 10 EPHSs. The three Model Standards for EPHS 1 were all scored moderate.



Participants described extensive data collection on the part of many LPHS partners, and many efforts to link various data sets. As CHAs and CHNAs are mandated, more people are participating in the process, gaining expertise, and making the process and data more meaningful. Areas of improvement noted by the group include coordination of different entities doing assessments at different times; engagement of community members outside of the public health sector; sharing assessment results between LPHS partners; and implementing ways improved ways to disseminate the information for different audiences.

Model Standard 1.1, Population-Based Community Health Assessment (CHA), explores the extent to which the LPHS regularly assesses community health and uses the findings to inform the community and to drive future policy and planning. The participants scored the Performance Measures from minimal to significant, resulting in a composite Model Standard score of moderate.

Participants described extensive data collection on the part of many LPHS partners. Data sets include demographics; socioeconomic indicators; communicable disease; mental health; death/illness and injury; and built environment, among many others. LPHS partners reported using a health equity lens for collecting and analyzing data.

The Community Health Assessment (CHA) is conducted at minimum every 5 years and provides comparison of national, state, and local health status trends. Hospitals in the LPHS conduct a Community Health Needs Assessment (CHNA) every 3 years. Hospital representatives reported that they compare hospital data to the community stakeholders' input. Hospitals are starting to

collaborate more on their CHNAs and are expanding collaboration beyond stakeholder meetings. The Promise Zone[6] is conducting crosswalks to show where there are alignments and divergences among health related reports.

Respondents noted several opportunities to produce a better CHA. First, the LPHS should align disparate assessment timelines among its partners to be more efficient with time and resources. Second, the LPHS needs to do a better job of asking the community about their perception of health status and then circle back to report on the findings.[7] Third, the CHA should be written in a way that connects with residents, using appropriate language tailored for different audiences. The *For the Sake of All* (FSOA) report was cited as an example of data paired with good narrative. In general, the group agreed that the CHA is promoted among organizations in the public health sector but awareness of the CHA is lacking among community members. Finally, the LPHS would benefit from more comprehensive documentation of community assets and resources for the CHA.

The group had difficulty defining the terms in the second model standard, "Update the CHA with current information continuously." After discussion, the group agreed that the CHA document is a snapshot in time but the implementation plan developed from the CHA is continuously monitored, evaluated, and updated.

According to participants, the LPHS has improved in the identification of needs and issues and the LPHS uses data to drive decision-making; however, participants agreed the data can be made even more useful, meaningful, and actionable. For example, the LPHS can improve the integration of data sets to show the inter-relatedness of social determinants of health with health outcomes. FSOA was cited as a good example of this. Respondents noted that the academic community can facilitate a more robust understanding of the data.

Participants voiced their concern about a variety of health status trends in the LPHS, including: an alarming increase in sexually transmitted infection (STI) rates in the last 5 years; gun violence; the pedestrian fatality rate; and the lack of access to behavioral health services. One participant desired more discussion about the disparities in health care quality for people living in poverty.

Model Standard 1.2, Current Technology to Manage and Communicate Population Health Data, explores the extent to which the local public health system uses the best technology and methods to combine, analyze, and communicate data on the public's health. The participants scored all Performance Measures as moderate, resulting in a composite Model Standard score of moderate.

[6] Visit St. Louis Promise Zone for more information.

[7] For the current round of CHA/CHIP, the organizers have designed the process to improve collection of community perceptions through the Community Strengths and Themes Assessment (CTSA). Organizers will return to the community groups that participated in the CTSA to report on the findings.

The participants reported that data providers are linking many types of data including clinical, mental health, outpatient, oral health, and social determinants, among many others. An area of opportunity is to continue to link "non-health" data to health data to enrich the understanding of health outcomes and to drive the development of innovative upstream interventions. Hospitals and vendors are working to enhance the collection of social determinants of health data through electronic medical records (EMR). The respondents reported improved standardization of data in the LPHS. For example, there is a greater degree of internal and interagency agreement on geographic parsing of data. The highly fragmented nature of the region is a barrier to data sharing and interpretation, but overall, participants reported greater willingness from data providers to share across care systems and providers. For example, the county health department signed a data use agreement with BJC and other partners to gain access to data on overdoses, and they want to extend this partnership. The Regional Health Commission's Access to Care Databook Workgroup is working on expanding data partnerships. Greater interoperability across systems is also an area of opportunity for the LPHS.

The health departments reported that they are looking at data with a health equity lens. Data are provided by age, race, and geographic distribution. Participants noted that data quality could be improved for some sub-populations. The Robert Wood Johnson Foundation funded an expansion of the County Health Rankings Model[8] to the zip code level across the state of Missouri, utilizing hospital data and principle components analysis. Participants found this to be a valuable data set, especially for monitoring trends in small geographies. LPHS partners are building a dashboard (ThinkHealthSTL.org) to make these data publicly available and city data will be added to the dashboard in 6-8 weeks.[9] Some members of the group were concerned about privacy issues related to collecting and disseminating health data. Group members noted that there are protections (e.g. HIPAA (Health Insurance Portability and Accountability Act of 1996), data suppression) in place to protect privacy.

LPHS organizations analyze health data, including geographic information, to see where health problems exist and use computer software to display complex public health data. The health departments worked with the county GIS (Geographic Information Systems) office to assess which areas in the region have the highest STI burden. Using these data, they developed a web application to show where the sexual health resources are located (testing, treatment, condoms, etc.) in the community. A respondent described how the FSOA report inspired LPHS partners to work with St. Louis University and Washington University to create a life-expectancy map by zip code in 2012.

Participants noted that the data consumers in the LPHS do not have access to state-of-the-art data visualization technology. The St. Louis data dashboard could have better visualization, greater ease of use, and better means for users to give feedback. There are efforts to document GIS usage in the LPHS and several open data groups meet regularly. Many LPHS organizations

[8] For more information, visit County Health Rankings and Roadmaps.
[9] This timeline was true at the time of the assessment. City data have been published on the ThinkHealthSTL dashboard since the event.

analyze health data, though some of the smaller partners (e.g. Community-Based Organizations (CBOs), civic groups), especially those in poorer communities, lack technology to access data systems or lack staff capacity for analysis.

LPHS health departments, hospitals, and other partners are working to make information more accessible for residents. For example, the county health department is developing “story maps” which combine maps with narrative text, images, and multimedia contents. The city incorporates health data into communications on billboards, buses, radio, and television.

Model Standard 1.3, Maintenance of Population Health Registries, explores the extent to which data are regularly collected to update population health registries and the extent to which data from these health registries is used to inform the CHA and other health analyses. The participants scored all Performance Measures as moderate, resulting in a composite Model Standard score of moderate.

The Missouri Department of Health and Human Services (DHSS) has reporting standards for health departments entering information into registries. The participants acknowledged the importance of population health registries for data integrity and the ability to validate data over time. LPHS partners utilize data from population health registries for the CHA and other analyses. Registries need to be maintained and assessed periodically to determine if the data are still relevant. Many community health centers in the LPHS lack the ability to report electronically to state registries (e.g. vaccinations), which can affect timeliness and completeness of data.

EPHS 1 Health Equity Measures

EPHS 1 Health Equity Measures			
These questions explore the use of the CHA and other assessments to monitor differences in health and wellness across populations, and the level to which the LPHS monitors social and economic conditions that affect health in the community. At what level does the LPHS…			
1A	Conduct a community health assessment that includes indicators intended to monitor differences in health and wellness across populations, according to race, ethnicity, age, income, immigration status, sexual identify, education, gender, and neighborhood?		55
1B	Monitor social and economic conditions that affect health in the community, as well as institutional practices and policies that generate those conditions?		50
HE 1	Monitor Health Equity Via CHA and Other Community Assessments	SIGNIFICANT	53

Participants scored Health Equity Measures 1A and 1B as minimal, resulting in a composite Health Equity score of minimal. The CHA contains indicators according to race, ethnicity, age, and income, but does not include information by sexual identity or immigration status, among other variables. An opportunity for improvement is to disaggregate results for more populations and additional variables for use in the CHA and other analyses. The group agreed that the LPHS monitors social and economic conditions that affect health in the community, as well as institutional practices and policies that generate those conditions, but there is substantial room for improvement in these activities.

EPHS 1 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• CHAs and CHNAs are mandated, though the level of quality varies.
• The LPHS is creating CHAs, even if the reports are not promoted as extensively as desired.
• Leadership is involved and understands the need for a high quality CHA.
• High potential of the existing talent in the region.
• 3-5 year cycles give time to validate data and assess impact/outcome of programs and intervention (clear benchmarking).
• The LPHS displays data in a variety of ways: smart phone apps, online dashboard, health communications (e.g. buses, billboards, TV, radio).
• Population health registries are in place.
• More people are looking at data through a health equity lens (e.g. FSOA, *Forward Through Ferguson* report, racial equity tools).

Weaknesses
• The LPHS is not allocating enough resources based on the needs of community.
• The LPHS uses resources inefficiently; too many organizations work in silos.
• Lack of awareness of where to go for updates on CHA and CHIP.
• CHA language is not always tailored to various literacy levels and cultural needs.
• There are gaps in CHA reach; better dissemination is needed among community members and those outside of public health.
• Difficult to use one CHA document for public health professionals vs. community at large.
• Dashboard users are unable to provide feedback.
• Gaps in sub-population data.
• Inconsistent capacity across agencies for data collection and analysis.
• Data systems are not all connected, and some use old technology (interoperability).
• Registries are not complete – data are missing.
• Minimal awareness among LPHS partners about existence of registries and how to use the data.

Short-Term Opportunities
• Continual discussions among CHA partners (not just once every five years).
• Launch discussions with federal partners to align assessment timelines.
• Develop dual reports – for public health professionals and general public.
• Identify the next level of stakeholders and organizations who could use the data.

• Improve data visualization and ease of use.
• Look at other public health systems for ideas and best practices for sharing data.
• Identify available resources to improve data capacity.
• Collaborate with residents through community advisory boards to understand data needs and align data collection.
• Co-create solutions to improve data access for the community.
• Assess and enhance how the community uses technology.
• Share training opportunities between LPHS organizations (e.g. GIS, story mapping, etc.)
• Document who is using GIS data and in what way.
• Identify concerns around sharing data (e.g. privacy).
• Enhance EMR data collection to include social determinants of health.
• Increase understanding of population health – what it is/is not.
• Improve abstract for birth defect rates.
• Increase understanding of what population health registries are/how to utilize the data.
• Stratify CHA indicators by additional health equity variables.
• Review institutional policies through health equity lens.

Long-Term Opportunities
• Increase collaboration (formal/informal) between hospitals and community. Implement standard processes for hospital and public health collaboration.
• Sync timing of assessments – LPHS partners should appeal to IRS/CDC/HRSA to align CHA timeframes.
• Region-wide score card to measure progress on regional priorities.
• Improve data visualization and ease of use.
• Utilize story maps.
• Utilize and link to non-public health data (e.g. education) to understand health outcomes and identify interventions.
• Create a regional governance structure around data stewardship.
• Collaborate with residents through community advisory boards to understand data needs and align data collection.
• Increase interoperability of databases.
• Co-create solutions to improve data access for the community.
• Assess and enhance how the community uses technology.
• Enhance EMR data collection to include social determinants of health.
• Increase understanding of population health – what it is/is not.
• Increase understanding of what population health registries are/how to utilize the data.
• Improve abstract for birth defect rates.
• Identify and implement social registries (beyond traditional health information).

• Assess who is contributing to health registries; identify gaps and barriers to contributing.
• Enhance systems to collect more demographic data (e.g. immigration status).
• Determine ways to measure institutional policies and practices that lead to inequities.
• Review institutional policies through health equity lens.

Essential Public Health Service 2: Diagnose and Investigate Health Problems and Health Hazards

To assess performance for Essential Public Health Service 2, participants were asked to address three key questions:

Are we ready to respond to health problems or health hazards in our county?
How quickly do we find out about problems?
How effective is our response?

Diagnosing and investigating health problems and health hazards in the community encompasses the following:

- Access to public health laboratory capable of conducting rapid screening and high-volume testing.
- Active infectious disease epidemiology programs
- Technical capacity for epidemiologic investigation of disease outbreaks and patterns of infectious and chronic diseases and injuries and other adverse health behaviors and conditions.

EPHS 2 Group Composition

Partners who gathered to discuss the performance of the local public health system in diagnosing and investigating health problems and health hazards included:

#	Organization Type
1	Community health planners
1	City and county governmental agencies
2	Epidemiologists
1	Healthcare systems
1	Local businesses and employers
1	Non-profit organizations/advocacy groups
1	Primary care clinics, community health centers, FQHCs
1	Professional associations
1	Community health planners

#	Organization Type
1	Public safety and emergency response organizations
1	Social service providers
2	State health department
1	Substance abuse or mental health organizations
1	The local board of health or other local governing entity
4	The local health department or other governmental public health agency

EPHS 2 Model Standard Scores

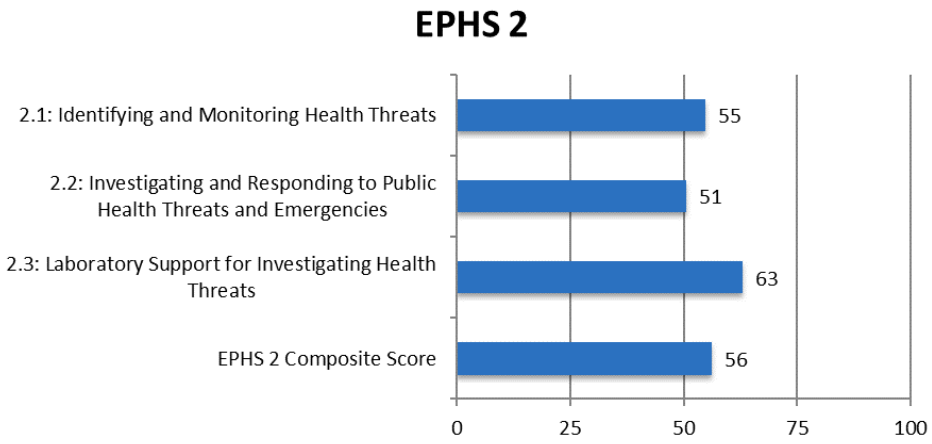
EPHS 2. Diagnose and Investigate Health Problems and Health Hazards			
The LPHS conducts surveillance to watch for outbreaks of disease, disasters, and emergencies (both natural and manmade), and other emerging threats to public health. Surveillance data include information on reportable diseases, potential disasters and emergencies, or emerging threats. The LPHS uses surveillance data to notice changes or patterns right away, determine the factors that influence these patterns, investigate the potential dangers, and find ways to lessen the effect on public health. The best available science and technologies are used to understand the problems, determine the most appropriate solutions, and prepare for and respond to identified public health threats. To ensure the most effective and efficient surveillance, the LPHS connects its surveillance systems with state and national systems. To provide a complete monitoring of health events, all parts of the system work together to collect data and report findings.			
2.1.1	Participate in a comprehensive surveillance system with national, state, and local partners to identify, monitor, and share information and understand emerging health problems and threats		63
2.1.2	Provide and collect timely and complete information on reportable diseases and potential disasters, emergencies, and emerging threats (natural and manmade)		63
2.1.3	Ensure that the best available resources are used to support surveillance systems and activities, including information technology, communication systems, and professional expertise		38
2.1	Identifying and Monitoring Health Threats	SIGNIFICANT	55
The LPHS stays ready to handle possible threats to public health. As a threat develops—such as an outbreak of a communicable disease, a natural disaster, or a biological, chemical, nuclear, or other environmental event—a team of LPHS professionals works closely together to collect and understand related data. Many partners support the response, with communication networks already in place among health-related organizations, public safety, rapid response teams, the media, and the public. In a public health emergency, a jurisdictional Emergency Response Coordinator leads LPHS partners in the local investigation and response. The response to an emergent event is in accordance with current emergency operations coordination guidelines.			
2.2.1	Maintain written instructions on how to handle communicable disease outbreaks and toxic exposure incidents, including details about case finding, contact tracing, and source identification and containment		63
2.2.2	Develop written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters		63
2.2.3	Designate a jurisdictional Emergency Response Coordinator?		63
2.2.4	Prepare to rapidly respond to public health emergencies according to emergency operations coordination guidelines		38
2.2.5	Identify personnel with the technical expertise to rapidly respond to possible biological, chemical, or and nuclear public health emergencies		38
2.2.6	Evaluate incidents for effectiveness and opportunities for improvement (such as After Action Reports, Improvement Plans, etc.)		38
2.2	Investigating and Responding to Public Health Threats and Emergencies	SIGNIFICANT	51

(continued on next page)

The LPHS has the ability to produce timely and accurate laboratory results for public health concerns. Whether a laboratory is public or private, the LPHS sees that the correct testing is done and that the results are made available on time. Any laboratory used by public health meets all licensing and credentialing standards.			
2.3.1	Have ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring		38
2.3.2	Maintain constant (24/7) access to laboratories that can meet public health needs during emergencies, threats, and other hazards		63
2.3.3	Use only licensed or credentialed laboratories		88
2.3.4	Maintain a written list of rules related to laboratories, for handling samples (including collecting, labeling, storing, transporting, and delivering), determining who is in charge of the samples at what point, and reporting the results		63
2.3	Laboratory Support for Investigation of Health Threats	SIGNIFICANT	63

EPHS 2 Discussion Summary

Participants in EPHS 2 explored LPHS readiness to diagnose and effectively respond to health problems and health hazards. Overall performance for EPHS 2 was scored **significant** in St. Louis and ranked first out of the 10 EPHSs. The three Model Standards for EPHS 2 were all scored significant.



Participants acknowledged that the LPHS follows regulations that govern reportable disease surveillance and public health laboratories. LPHS partners participate in an Incident Command System (ICS) and engage frequently in emergency drills. The group noted that there are gaps in public awareness about LPHS emergency preparedness and response capacity. The LPHS would benefit from involving smaller organizations and lay community members in emergency dills and After Action Reporting (AAR).

Model Standard 2.1, Identification and Surveillance of Health Threats, explores LPHS performance to monitor and identify outbreaks, disasters, emergencies, and other emerging threats to public health. Participants scored the Performance Measures from moderate to significant, resulting in a composite Model Standard score of low significant.

The group agreed that the LPHS participates in a somewhat comprehensive surveillance system with national, state, and local partners to identify, monitor, and share information and understand emerging health problems and threats. There are statutes that govern mandatory public health reporting. Respondents indicated that medical providers could be better informed about mandatory reporting regulations. According to the group, the LPHS is somewhat behind the curve in reporting technologies; many surveillance systems are still paper-based (e.g. STIs) though some surveillance is electronic (e.g. Zika). Paper-based systems were regarded as both a strength and a weakness for the LPHS; paper-based systems cannot be hacked, but reporting is slower.

In general, the LPHS is good at establishing interventions once a threat is recognized, but there is room for improvement in anticipating and identifying emerging threats. Participants noted

that there are sometimes gaps in surveillance communication between federal, state, and local partners. One respondent noted the LPHS needs more intelligence input (e.g. law enforcement) to increase situational domain awareness.

The group discussed the "cycle of complacency" in which public health receives funding when there is an emergency but is otherwise overlooked. There is room for improvement in raising public awareness about public health and the need for sustainable funding to prepare for health threats. The group noted a barrier to proper surveillance is public skepticism and the fear that information collected by the government could be manipulated for political purposes.

Model Standard 2.2, Investigation and Response to Public Health Threats and Emergencies, explores LPHS performance in collecting and analyzing data on public health threats and responding to emergencies. Participants scored the Performance Measures from moderate to significant, resulting in a composite Model Standard score of low significant.

The participants agreed that the LPHS maintains written instructions on how to handle communicable disease outbreaks and toxic exposure incidents. Law enforcement agencies have instructions and brief employees on how to respond during an incident. The LPHS has developed written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters. Public health agencies identify what resources are available and conduct exercises so that during an emergency, resources are deployed in a timely manner. The group agreed that emergency drills occur frequently in the LPHS and many partners participate. Respondents noted that the LPHS completes improvement plans and AARs after emergency drills, but expressed concern that the improvements are not implemented.

The group reported there is a regional unified health command agreement and an emergency operations plan. If an incident is localized, partners will assist but the local agency becomes the lead agency during the response. The group reported that the health departments and other LPHS partners (Emergency Management Agency (EMA), law enforcement) follow ICS protocol. Participants expressed concern that the LPHS has written plans but they would not work well in an actual emergency. The LPHS has a jurisdictional Emergency Response Coordinator but participants did not know who it was.

An area of improvement would be to expand the awareness and involvement of LPHS partners and community residents that are not traditionally involved in emergency planning and response. The respondents noted that small LPHS partners (such as CBOs and residential facilities) are ill-equipped to respond during emergencies. Community organizations are invited to participate in drills but their participation is not mandatory. Additionally, CBOs are not involved in the AARs, which is a gap. The participants reported that public awareness is lacking – many LPHS partners are linked through the Federal Emergency Management Agency (FEMA) organizational structure but most people do not realize what goes on behind the scenes.

Model Standard 2.3, Laboratory Support for Investigation of Health Threats, discusses the ability of the LPHS to produce timely and accurate laboratory results for public health concerns. Participants scored the Performance Measures from moderate to optimal, resulting in a composite Model Standard score of significant.

The group agreed that the LPHS has ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring. The Department of Health and Senior Services (through the state) provides 24/7 access to laboratories that can meet public health needs during emergencies, threats, and other hazards. Respondents reported that the LPHS uses only licensed or credentialed laboratories; these laboratories maintain a written list of rules related to handling samples, determining who is in charge of the samples at what point, and reporting the results. The participants noted that the group did not have representation from any LPHS laboratories for further details on this model standard.

EPHS 2 Health Equity Measures

EPHS 2 Health Equity Measures			
These questions explore participation in surveillance systems designed to monitor health inequities, collection of reportable disease information about health inequities, and resources available to investigate the social determinants of health inequities. At what level does the LPHS…			
2A	Operate or participate in surveillance systems designed to monitor health inequities and identify the social determinants of health inequities specific to the jurisdiction and across several of its communities?		13
2C	Have the necessary resources to collect information about specific health inequities and investigate the social determinants of health inequities?		13
HE 2	Identify and Investigate Health Inequities Through Surveillance and Reporting	MINIMAL	13

Participants scored Health Equity Measures 2A and 2C as minimal, resulting in a composite Health Equity score of minimal. The group agreed that the LPHS performs at a minimal level in operating or participating in surveillance systems designed to monitor health inequities. They also agreed that the LPHS has some resources to collect information about specific health inequities and investigate the social determinants of health inequities, though there is significant room for improvement. One participant noted that the Deaconess Foundation has a grant for hospitals that are interested in identifying and investigating the social determinants of health inequities.

EPHS 2 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• Communicable disease reporting is mandated.
• Paper-based systems are not susceptible to hacking.
• St. Louis Area Agency on Aging (SLAAA) hosts a functional needs registry and collaborates with the public health departments regarding emergencies (mostly the older adult population and people with disabilities).
• The LPHS trains volunteer emergency personnel.
• The Emergency Response Coordinator is designated through the emergency plans.
• The LPHS has the Unified Health Command document.
• After Action Reports/Improvement Plans (AARs/IPs) are required for public health, EMA, hospitals, law enforcement, etc.
• The LPHS utilizes the Incident Command System (ICS).[10]
• Many institutions that make the system are represented in training.
• The LPHS has a Medical Reserve Corp and Radiological Response Medical Reserve Corp.
• Emergency Management Agencies (EMAs), law enforcement, and public health labs all have written plans and procedures for incidents.

Weaknesses
• Sometimes there are gaps in communication of health threats between national, state, and local levels.
• Lack of funding and sustainability for public health.
• We only fund public health when it is an emergency ("a cycle of complacency").
• General public fears that information that is collected by the government could be manipulated for political purposes.
• Paper based reporting systems are slow.
• Emergency response may be the least impactful area of public health but it is the most funded.
• CDC funding is dependent on federal political agenda; they are currently facing a $50 million cut in their budget.
• Written plans may not be successfully operationalized in an actual emergency.
• Lack of staffing for emergency preparedness.
• AARs/IPs improvements are not being addressed in a timely fashion.

[10] ICS is a standardized approach to the command, control, and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective. For more information, visit the ICS Resource Center.

• Civilian awareness and readiness is lacking.

Short-Term Opportunities
• Improve communication between participating agencies.
• Increase awareness among medical providers; sometimes they do not know the mandatory reporting requirements.
• Increase public awareness about the importance of funding public health.
• Improve communications back to providers about surveillance (e.g. STIs).
• Written instructions should be available in both digital and hard copy.
• Increase civilian emergency response training.
• Improve the emergency public speaker system so the audio is clear.
• Work with people who have been involved with an emergency.
• Review manuals annually and time stamp to ensure plans reflect best practice.
• Improve use of digital technology (ex. SMS text messaging to communicate threats).
• Implement Continuous Quality Improvement (CQI) for AAR documentation.

Long-Term Opportunities
• "Big data" and advances in computing power may open opportunities we cannot even imagine right now.
• Increase information input from law enforcement and intelligence partners to improve situational awareness and domain awareness.
• Ensure plans can be operationalized for threats at a local level.
• Practice for emergencies.
• Increase community training, education, and awareness of emergency preparedness.
• Increase governmental support for community-based agency response.
• Involve CBOs in emergency preparedness exercises.
• Utilize racial equity tools in identifying and monitoring health threats.

Essential Public Health Service 3: Inform, Educate, and Empower People about Health Issues

To assess performance for Essential Public Health Service 3, participants were asked to address the key question:

How well do we keep all segments of our community informed about health issues?

Informing, educating, and empowering people about health issues encompasses the following:

- Community development activities.
- Social marketing and targeted media public communication.
- Provision of accessible health information resources at community levels.
- Active collaboration with personal healthcare providers to reinforce health promotion messages and programs.
- Joint health education programs with schools, churches, worksites, and others.

EPHS 3 Group Composition

Partners who gathered to discuss the performance of the local public health system in informing, educating, and empowering people about health issues included:

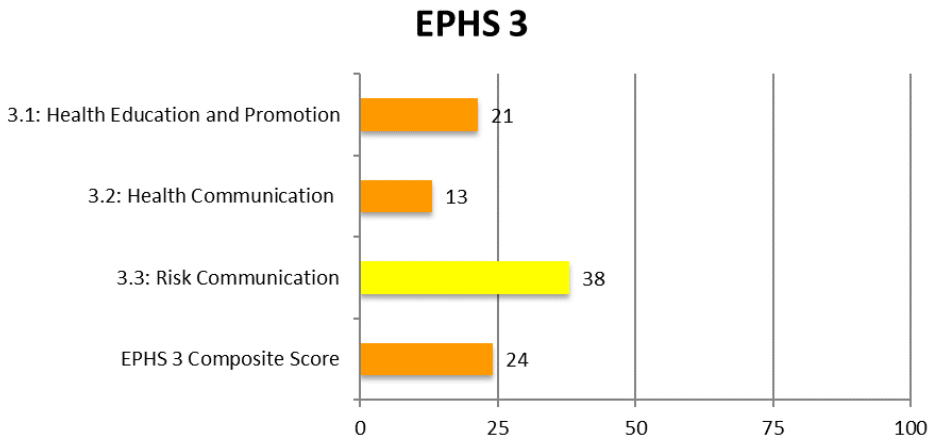
#	Organization Type
1	Local chapter of national health-related group
1	Community based organizations
1	Community development organizations
4	Healthcare systems
3	Hospitals
2	Local chapter of national health-related group
1	Media
1	Ministerial alliances
1	Non-profit organizations/advocacy groups
1	Parks and Recreation
2	Social service providers
2	Substance abuse or mental health organizations
2	The local health department or other governmental public health agency
1	Universities, colleges, and academic institutions
1	Local chapter of national health-related group

EPHS 3 Model Standard Scores

EPHS 3. Inform, Educate and Empower People about Health Issues			
The LPHS designs and puts in place health promotion and health education activities to create environments that support health. These promotional and educational activities are coordinated throughout the LPHS to address risk and protective factors at the individual, interpersonal, community, and societal levels. The LPHS includes the community in identifying needs, setting priorities, and planning health promotional and educational activities. The LPHS plans for different reading abilities, language skills, and access to materials.			
3.1.1	Provide policymakers, stakeholders, and the public with ongoing analyses of community health status and related recommendations for health promotion policies		38
3.1.2	Coordinate health promotion and health education activities at the individual, interpersonal, community, and societal levels		13
3.1.3	Engage the community throughout the process of setting priorities, developing plans, and implementing health education and health promotion activities		13
3.1	Health Education and Promotion	MINIMAL	21
The LPHS uses health communication strategies to contribute to healthy living and healthy communities that include the following: increasing awareness of risks to health; ways to reduce health risk factors and increase health protective factors; promoting healthy behaviors; advocating organizational and community changes to support healthy living; increasing demand and support for health services; building a culture where health is valued; and creating support for health policies, programs, and practices. Health communication efforts use a broad range of strategies, including print, radio, television, the Internet, media campaigns, social marketing, entertainment education, and interactive media. The LPHS reaches out to the community through efforts ranging from one-on-one conversations to small group communication, to communications within organizations and the community, and to mass media approaches. The LPHS works with many groups to understand the best ways to present health messages in each community setting and to find ways to cover the costs.			
3.2.1	Develop health communication plans for media and public relations and for sharing information among LPHS organizations		13
3.2.2	Use relationships with different media providers (e.g., print, radio, television, the Internet) to share health information, matching the message with the target audience		13
3.2.3	Identify and train spokespersons on public health issues		13
3.2	Health Communication	MINIMAL	13
The LPHS uses health risk communications strategies to allow individuals, groups, organizations, or an entire community to make optimal decisions about their health and well-being in emergency events. The LPHS recognizes a designated Public Information Officer (PIO) for emergency public information and warning. The LPHS organizations work together to identify potential risks (crisis or emergency) that may affect the community and develop plans to effectively and efficiently communicate information about these risks. The plans include pre-event, event, and post-event communication strategies for different types of emergencies.			
3.3.1	Develop an emergency communications plan for each stage of an emergency to allow for the effective dissemination of information		38
3.3.2	Make sure resources are available for a rapid emergency communication response		38
3.3.3	Provide risk communication training for employees and volunteers		38
3.3	Risk Communication	MODERATE	38

EPHS 3 Discussion Summary

Participants in EPHS 3 explored LPHS performance in keeping the community informed and empowered about public health issues. Overall performance for EPHS 3 was scored **high minimal** in St. Louis and ranked ninth out of the 10 EPHSs. The three Model Standards for EPHS 3 were scored from minimal to moderate.



LPHS health education strengths include good models of collaboration and a desire to partner and achieve optimal health in the community. However, participants reported that LPHS collaboration is weak in the implementation phase. The LPHS has health communication infrastructure but organizations do not use it in a coordinated way. The group suggested that LPHS organizations improve coordination of talking points before issues go public. Additionally, public health issues sometimes take a back seat to other news. Participants suggested that building a "culture of health" in the LPHS will help keep public health a priority. The LPHS performs slightly better in risk communication than general health communication, but there are opportunities to share more at the community level.

Model Standard 3.1, Health Education and Promotion, explores the extent to which the LPHS successfully provides policy makers, stakeholders, and the public with health information and related recommendations for health promotion policies, coordinates health promotion and education activities, and engages the community in setting priorities and implementing health education and promotion activities. Participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of high minimal.

Participants described a wide range of health education and promotion activities in the LPHS, and noted that organizations do these activities independently and collaboratively. Partners share community health status data (through CHAs and other assessments), prevention and risk factor data (such as the opioid epidemic), and community health needs (through CHNAs and other assessments). Information is shared among public agencies, private agencies, volunteer organizations, non-profit organizations, community groups, businesses, and policy makers. The

group identified many formal coalitions in the LPHS that do education and promotion such as Generate Health, Early Childhood Council, and United Way, among others.

Participants reported that organizations work together to plan, conduct, and implement activities in a variety of ways. Hospitals often give charitable donations to support organizations that do health education in the community. National associations train stakeholders to become board members and develop leadership skills. LPHS organizations can receive training to develop accessible health messaging. LPHS partners help align direct service organizations or support community coalitions to strategically expand their partnerships beyond their typical scope. The group reported several examples of working beyond typical LPHS partners on specific health promotion activities, including "Walk with a Doc" to improve physician-patient communication; nutrition education at supermarkets; dollar matching programs to purchase healthy foods; and medication take back programs.

The LPHS provides health education on many topics including STI prevention (Get Tested STL), nutrition, worksite wellness, mental health and toxic stress (Alive and Well Campaign), and self-care, among many other topics. Education occurs in a variety of settings including personal healthcare delivery locations (e.g. Walk with a Doc), worksites, schools (e.g. Healthy Schools, Healthy Communities), neighborhoods (e.g. grocery stores, health fairs, community events), recreational facilities, and places of worship (e.g. potlucks after religious service). The group described health promotion activities that have occurred through television and radio, including Alive and Well St. Louis, Radio One promoting communicable disease education and summer meal programs, and the St. Louis Cardinals promoting a wellness campaign for diabetes.

The group agreed that the LPHS bases campaigns on a combination of evidence-based approaches and evidence of effectiveness. Some LPHS organizations strive to meet established health literacy standards or they do research on what resonates/connects with targeted populations to make messaging more effective. Participants reported that LPHS organizations tailor campaigns based on income level, risk factors, language, and literacy; some organizations test materials with focus groups to confirm it meets the population's needs. Campaigns are evaluated through participation rates, pre- and post- tests to measure knowledge gain, and qualitative feedback. The group noted that the campaigns are lacking in outcome data, particularly in measuring behavior change. In general, the group agreed there was room for improvement in adequate and correct measurement to be able to compare evidence-based practices and the impact of programs. Participants said that funders are demanding more outcome data but are not adequately funding evaluation for programs.

Model Standard 3.2, Health Communication, explores the extent to which the LPHS uses health communication strategies to increase awareness of health risk factors, promote healthy behaviors, advocate for organizational and community changes to support healthy living, build a culture of health, and create support for health policies and programs through development of relationships with the media, information sharing among LPHS partners, and identification and training of spokespersons on public health issues. Participants scored all Performance Measures as minimal, resulting in a composite Model Standard score of minimal.

The group agreed that health communication in the LPHS is not comprehensive and is loosely coordinated at a system level. The participants reported that most LPHS organizations have issue specific communications plans, but they may or may not include health issues. The county health department has an emerging health communication program built out of interdepartmental teams. The city health department has Public Information Officers (PIOs) and coordinates some communication with the county (e.g. joint press releases). There is some system level coordination through the Missouri Department of Health and Senior Services (DHSS). Some organizations in the LPHS are seen as subject matter experts and there are spokespersons for certain subjects, however they are not formally recognized in this capacity.

Respondents agreed that LPHS could improve coordination with different media providers. LPHS organizations are good at sharing events individually via social media but could do more in other media forms. Participants also voiced that health information is not always tailored to the target audience. The participants identified a few health information campaigns that were well coordinated and publicized: Alive and Well St. Louis, and information campaigns about the opioid epidemic. For the opioid campaign, the LPHS had many non-traditional health partners come together to discuss solutions to the problem. In general, health communication in the LPHS is reactive rather than proactive.

Some participants suggested that it is unrealistic to have a centralized health communications system, while other participants cited examples of regions that have a system approach to health communications. The group agreed that it would be helpful to get the perspective of media stakeholders for this Model Standard.

Model Standard 3.3, Risk Communication, specifically explores LPHS performance in communicating health information in emergencies. Participants scored all Performance Measures as moderate, resulting in a composite Model Standard score of moderate. Overall the LPHS is more coordinated at the system level in risk communication than in other areas of EPHS 3, though the respondents identified areas for improvement.

Hospitals in the LPHS are well aware of emergency communication plans and have access to the functional needs registries. Some organizations are enrolled in the Rave Alert system, which is described as “a mass notification system for routine messaging and emergency communications.”[11] However, participants noted that awareness may be limited to certain LPHS organizations that participate in emergency planning. For groups that are involved, there is an established process for emergency communication but the plans are not comprehensive enough for all events or all partners that should be involved. The group noted a gap in risk communication planning for violence and community unrest. The LPHS also lacks coordinated planning for emergencies resulting from service termination (e.g. recent homeless shelter closure).

[11] For more information, see Rave Alert website.

Certain employees at the health departments and hospitals receive ICS training for emergencies. However, the group participants said risk communication training is not widely available among LPHS organizations. The participants suggested that direct service organizations and community members need to be more directly involved in health communication and risk communication planning. The group agreed that the LPHS would benefit from a shared scope of public health that includes ensuring basic needs before and after emergencies. The participants noted that it would be helpful to get the perspective of emergency preparedness personnel for this Model Standard.

EPHS 3 Health Equity Measures

EPHS 3 Health Equity Measures			
These questions explore how the general public, policymakers, and private stakeholders are informed about community health status and needs in the context of health equity and social justice, whether health promotion and education campaigns are culturally competent, and whether the LPHS plans campaigns to identify the structural and social determinants of health inequities. At what level does the LPHS…			
3A	Provide the general public, policymakers, and public and private stakeholders with information about health inequities and the impact of government and private sector decision-making on historically marginalized communities?		13
3B	Provide information about community health status (e.g., heart disease rates, cancer rates, and environmental risks) and community health needs in the context of health equity and social justice?		13
3C	Plan and conduct health promotion and education campaigns that are appropriate to culture, age, language, gender, socioeconomic status, race/ethnicity, and sexual orientation?		13
3D	Plan campaigns that identify the structural determinants of health inequities and the social determinants of health inequities (rather than focusing solely on individuals' health behaviors and decision-making)?		0
HE 3	Inform, Educate, and Empower People About the Social Determinants of Health	MINIMAL	10

Participants scored Health Equity Measures 3A-3D from no activity to minimal, resulting in a composite Health Equity score of minimal. The participants reported that the LPHS is making some progress in health equity but substantial improvement is needed; as one participant described, "people are talking the talk, but not walking the walk." There is a lot of information available regarding health equity (e.g. FSOA) and awareness has increased in the LPHS, but participants scored these measures minimal due to lack of action on health equity issues. The group agreed that the LPHS provides information about community health status and health disparities, but not necessarily in the context of health equity and social justice. The respondents reported no activity around campaigns that identify structural and social determinants of health. The group agreed there is good energy around health equity (for example, every health system in the city has signed the American Hospital Association "Equity Pledge") and momentum must continue.

EPHS 3 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• The system understands the need for health education and promotion.
• There is strong programming in the LPHS.
• There is willingness to partner and collaborate among LPHS organizations.
• There are pockets and models of great collaboration.
• Individuals are willing to collaborate.
• Non-traditional partnerships are expanding.
• The LPHS can take advantage of academic partnerships; they have time, talent, and resources.
• The Community Health Worker (CHW) model is growing in popularity.
• Infrastructure of health communications exists: social media, news outlets.
• Organizations in the community are informally recognized as subject matter experts.
• The LPHS has access to health literacy experts.

Weaknesses
• Lack of coordinated planning and implementation of efforts in health communication.
• Lack of systemic leadership and visioning.
• Assessment timelines vary.
• Not enough work on community improvement plans.
• Poor access to health outcome data.
• Need to build trust in the community. We ask what the community needs but do not work with them on the solutions.
• We do not meet people where they are. Some community members may not consider health information a priority when they have more pressing needs.
• Lack of future focus for efforts.
• The LPHS is fragmented and organizations can be territorial, especially if it means giving up sole ownership of a project.
• Lack of robust racial equity lens and trauma informed care.
• Lack of political will to make key changes.
• Lack of formal subject matter experts and spokespeople for health communication.
• No coordinated effort around health communication; media use is not coordinated.
• Health communication is reactive, not proactive.
• Health communication is not seen as a priority.
• Health literacy level of current communication is not always appropriate.
• Lack of/need for health communication to the policy makers.
• Lack of common scope of what public health is.

• Lack of coordinated efforts to address closure of services.

Short-Term Opportunities
• Move current efforts through planning and implementation (e.g. city and county coordinate the assessment process.)
• Combine similar and like efforts for financial resource development.
• Raise awareness of who constitutes the LPHS and their contact information.
• Market and promote other organizations' programs using institutional resources.
• Coordinate with current one-stop resource guides to share resources (e.g. United Way).
• Continue work with Accountable Health Communities.
• Create a notification system in the LPHS for health communication messages and share talking points.
• Formally recognize subject matter experts in the LPHS so everyone is aware. Provide communications training to them.
• Involve social services in health and risk communication.
• Include community members and community partners in developing risk communication plans and share the plans with the community.
• Place a racial equity lens on risk communication.

Long-Term Opportunities
• Scale the CHW program.
• Identify several collective impact areas; identify the organizations, what their roles are, and approaches to meet their needs.
• Enable more opportunities to network with other organizations that are doing this work.
• Engage physicians in resources that are available for their patients.
• Commit to coordination (e.g. grant communication and collaboration) and accountability.
• Develop a knowledge sharing platform.
• Develop operational definition and scope of public health, culture of health, and healthy community.
• Public health alerts (akin to "Amber alerts") and reminder texts.
• Develop a communication hub of resources.
• Develop a LPHS communication plan.
• Develop relationships with media providers.
• Commit to health literacy, inclusion, and health equity.
• Integrate health and social service delivery with hot spot policing.

Essential Public Health Service 4: Mobilize Community Partnerships to Identify and Solve Health Problems

To assess performance for Essential Public Health Service 4, participants were asked to address the key question:

How well do we truly engage people in local health issues?

Mobilizing community partnerships to identify and solve health problems encompasses the following:

- Convening and facilitating partnerships among groups and associations (including those not typically considered to be health related).
- Undertaking defined health improvement planning process and health projects, including preventive, screening, rehabilitation, and support programs.
- Building a coalition to draw on the full range of potential human and material resources to improve community health.

EPHS 4 Group Composition

Partners who gathered to discuss the performance of the local public health system in mobilizing community partnerships to identify and solve health problems included:

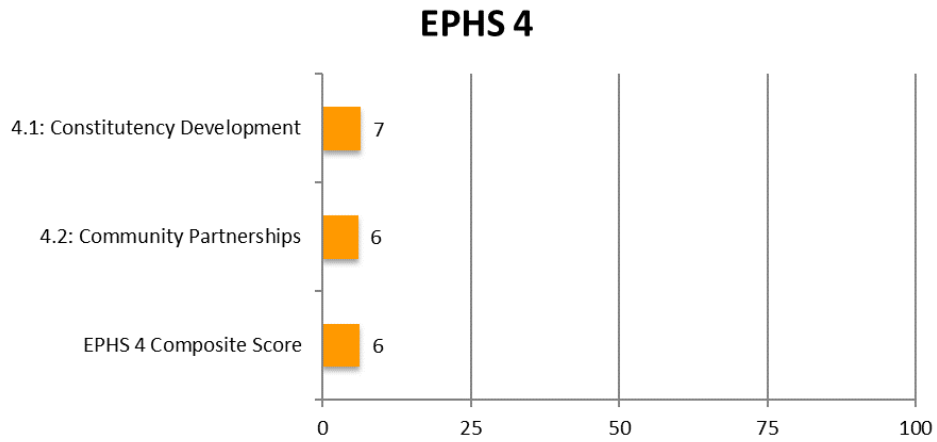
#	Organization Type
1	Local chapter of national health-related group
1	Community based organizations
1	Community development organizations
4	Healthcare systems
3	Hospitals
2	Local chapter of national health-related group
1	Media
1	Ministerial alliances
1	Non-profit organizations/advocacy groups
1	Parks and Recreation
2	Social service providers
2	Substance abuse or mental health organizations
2	The local health department or other governmental public health agency
1	Universities, colleges, and academic institutions
1	Local chapter of national health-related group

EPHS 4 Model Standard Scores

EPHS 4. Mobilize Community Partnerships to Identify and Solve Health Problems			
The LPHS actively identifies and involves community partners—the individuals and organizations (constituents) with opportunities to contribute to the health of communities. These stakeholders may include health, transportation, housing, environmental, and non-health related groups, and community members. The LPHS manages the process of establishing collaborative relationships among these and other potential partners. Groups within the LPHS communicate well with one another, resulting in a coordinated, effective approach to public health, so that the benefits of public health are understood and shared throughout the community.			
4.1.1	Maintain a complete and current directory of community organizations		0
4.1.2	Follow an established process for identifying key constituents related to overall public health interests and particular health concerns		0
4.1.3	Encourage constituents to participate in activities to improve community health		13
4.1.4	Create forums for communication of public health issues		13
4.1	Constituency Development	MINIMAL	7
The LPHS encourages individuals and groups to work together so that community health may be improved. Public, private, and voluntary groups—through many different levels of information sharing, activity coordination, resource sharing, and in-depth collaborations—strategically align their interests to achieve a common purpose. By sharing responsibilities, resources, and rewards, community partnerships allow each member to share its expertise with others and strengthen the LPHS as a whole. A community group follows a collaborative, dynamic, and inclusive approach to community health improvement; it may exist as a formal partnership, such as a community health planning council, or as a less formal community group.			
4.2.1	Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community		13
4.2.2	Establish a broad-based community health improvement committee		5
4.2.3	Assess how well community partnerships and strategic alliances are working to improve community health		0
4.2	Community Partnerships	MINIMAL	6

EPHS 4 Discussion Summary

Participants in EPHS 4 explored LPHS performance in engaging the community in local health issues through partnerships. Overall performance for EPHS 4 was scored **minimal** in St. Louis and ranked tenth out of the 10 EPHSs. The two Model Standards for EPHS 4 were scored minimal.



Participants acknowledged that active LPHS partners and coalitions attempt to be welcoming and inclusive, but invitation and participation is largely based on "who you know." The respondents agreed that the LPHS lacks a comprehensive and up to date list of community partners, and as a result, key participants are being left out. Opportunities for improvement include: making partnerships more inclusive and accessible; aligning partners and funders with similar goals; and improving scalability of projects from pilot to community level.

Model Standard 4.1, Constituency Development, examines LPHS performance in identifying and involving a wide range of community partners and providing opportunities to contribute to community health. Participants scored the Performance Measures from no activity to minimal, resulting in a composite Model Standard score of minimal.

The group named many organizations that are active in the LPHS, including hospitals and health systems; health providers; social services organizations; schools; and faith-based organizations. Participants noted that faith-based organizations are engaged on certain issues more than others, and they tend to do more work in delivery of services or education, unless they have the resources available to involve staff in other activities. The biggest gap is lack of participation from community members; those who in live in the community and understand the needs must be involved in creating solutions. There are many grassroots organizations that are working in the LPHS but do not have the opportunity or capacity to sit at the table. There is also a lack of participation from emergency preparedness representatives, transportation representatives, civic organizations, and elected officials. New individuals are identified for constituency building through existing working relationships. The group agreed that existing coalition members tend

to be very welcoming to new members. A barrier to participation is time and location of meetings.

Community members are engaged to improve health by participating in focus groups; interacting with "health ambassadors" at locations in the community (i.e. grocery stores); and through targeted message campaigns. However, the group noted the LPHS could do better outreach and follow up with community members to encourage participation and inclusion. The LPHS does minimal work creating forums for communication of public health issues, with the exception of the opioid issue, which has had a more coordinated response.

The United Way resource guide serves as a directory of LPHS organizations, and the CMS Accountable Health Communities are working toward a community directory, but there is no comprehensive list for the LPHS. The LPHS process for identifying key constituents is unclear; sometimes grants stipulate participation by certain partners, in other cases, invitation is based on existing relationships and "who you know." Often non-traditional partners do not understand their role in the LPHS and what they can contribute to public health planning and implementation; the group noted that the LPHS must clearly communicate why non-traditional partners need to be involved. Sometimes trust issues preclude participation from certain partners.

Model Standard 4.2, Community Partnerships, explores the LPHS performance in encouraging and mobilizing collaboration across the community, establishing a broad-based community health improvement committee, and assessing the impact and effectiveness of community partnerships in improving community health. Participants scored the Performance Measures from no activity to minimal, resulting in a composite Model Standard score of minimal.

The group reported that there were many partnerships at the local, regional, and state level to maximize public health improvement activities. The St. Louis Partnership for a Healthy Community is a product of the last Saint Louis County CHA, and partnerships have coalesced around priorities in the CHA (e.g. Healthy Living Coalition works on chronic disease). The St. Louis Business Health Coalition forges partnerships with companies in the region. FSOA has several action planning groups that have spurred collective impact partnerships around school-based health centers, violence prevention, and CHWs. FSOA action teams set goals for 12-18 months. The Breakthrough Coalition is a group of 200 aging public service professionals that meet every other month to discuss local issues.

The group identified several groups that serve as (somewhat) broad-based community health improvement committees, such as FSOA, Ready by 21, and Flourish (under Generate Health). Ready by 21 is focused on child-wellbeing and is working to coordinate partnerships, set commons goals, and leverage funding across the region. This work has provided lessons learned for collective impact work in the region, such as clarifying the role of backbone organizations, and understanding what larger players can bring to the table in terms of capacity building. However, the participants noted that it is still difficult to see results from collective impact work (e.g. "moving the needle" and sustainability) and there need to be more successes for people to

buy in and align efforts. Another weakness noted by respondents is the lack of scalability from small geographies (e.g. zip code) to the broader community. The group agreed there is room for improvement in: collaboration with rural health organizations; streamlining fragmented partnerships around policy and social determinants of health; bringing grassroots organizations on board to help balance larger players (such as BJC health system) in community partnerships; better sharing of data to show intersection of health with other sectors (e.g. transportation); and capacity building for community members to participate in joint problem solving. Participants agreed there is a desire to boost the health improvement work that has started but at the same time recognize that the LPHS is not where it needs to be.

EPHS 4 Health Equity Measures

EPHS 4 Health Equity Measures			
These questions explore inclusiveness of LPHS coalitions and decision-making. At what level does the LPHS…			
4A	Have a process for identifying and engaging key constituents and participants that recognizes and supports differences among groups?		0
4B	Provide institutional means for community-based organizations and individual community members to participate fully in decision-making?		0
4C	Provide community members with access to community health data?		13
HE 4	Inclusive and Participatory Community Partnerships	MINIMAL	4

The participants scored Health Equity Measures 4A-4C from no activity to minimal, resulting in a composite Health Equity score of low minimal. The group agreed there was no activity in the LPHS around a process for identifying and engaging key constituents and participants that recognizes and supports differences among groups. The participants also agreed that there are few institutional means for community-based organizations or individual community members to participate fully in decision making, though one participant noted that the Promise Zone is conducting a participatory budgeting process in which community residents are selected as delegates. Community health data are publically available (e.g. CHNAs, Access to Care Report by the Regional Health Commission, Healthy Communities Institute dashboard), though the information is not always easy for community members to access or understand.

EPHS 4 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• LPHS organizations have opportunities and ability to collaborate and partner with other organizations.
• The current efforts of broad-based community organizations are strong (e.g. Ready by 21, Flourish – Generate Health).

Weaknesses
• Lack of representation from: emergency preparedness, elected officials, community members, neighborhood organizations, civic organizations, transportation, police, faith groups, grass roots organizations.
• LPHS identifies issues based on quantitative data but we do not always understand the "why" behind issues.
• Lack of process for identifying and updating information for constituents and stakeholders.
• Lack of accomplishment or action with partners.
• Lack of monitoring and evaluation of a broad-based community health improvement committee.
• Need for buy-in and scalability of health improvement activities.

Short-Term Opportunities
• Learn about the community from a historical perspective and their experience with health in the past. Identify trusted community members.
• Make coalitions meetings more accessible by reducing use of jargon and hosting at alternative locations and times.
• Set clear expectations (e.g. frequency of participation) and guidelines by creating coalition charters.
• Give incentives (e.g. monetary, food, daycare) to community members to participate in coalitions.
• Explain to non-traditional partners why they should participate in coalitions.
• Identify goal or purpose of initiative, and identify constituents to include based on the goal.
• Coordinate with rural health organizations.
• Conduct informal meetings between grass roots organizations to strategize; examine how their activities might intersect with public health.
• Share data with other organizations and sectors (e.g. transportation) to tell a more compelling story and advocate better at the policy level.
• Define "broad-based community health improvement committee."

Long-Term Opportunities
• Scale the CHW program.
• Develop a system or infrastructure for identifying appropriate constituents and decision makers and keep their information updated.
• Align partners and organizations with like goals and missions.
• Align funders and organizations with similar goals and missions.
• Improve fragmented partnerships by focusing on social determinants and policy.
• Invite the right mix of people from various organizational levels – including decision makers.
• Build relationships and community member capacity through partnerships (e.g. project management).

Essential Public Health Service 5: Develop Policies and Plans that Support Individual and Community Health Efforts

To assess performance for Essential Public Health Service 5, participants were asked to address two key questions:

What local policies in both the government and private sector promote health in our community? How well are we setting healthy local policies?

Developing policies and plans that support individual and community health efforts encompasses the following:

- Leadership development at all levels of public health.
- Systematic community-level and state-level planning for health improvement in all jurisdictions.
- Development and tracking of measurable health objectives from the community health plan as a part of continuous quality improvement strategy plan.
- Joint evaluation with the medical healthcare system to define consistent policy regarding prevention and treatment services.
- Development of policy and legislation to guide the practice of public health.

EPHS 5 Group Composition

Partners who gathered to discuss the performance of the local public health system in developing policies and plans that support individual and community health efforts included:

#	Organization Type
1	City and county governmental agencies
2	Community based organizations
1	Environmental health agencies
1	Foundations
1	Health service providers
1	Healthcare systems
1	Health-related coalition leaders
1	Hospitals
1	Non-profit organizations/advocacy groups

#	Organization Type
1	Professional associations
1	Public health laboratories
3	Public safety and emergency response organizations
1	Substance abuse or mental health organizations
4	The local health department or other governmental public health agency
1	Waste management facilities

EPHS 5 Model Standard Scores

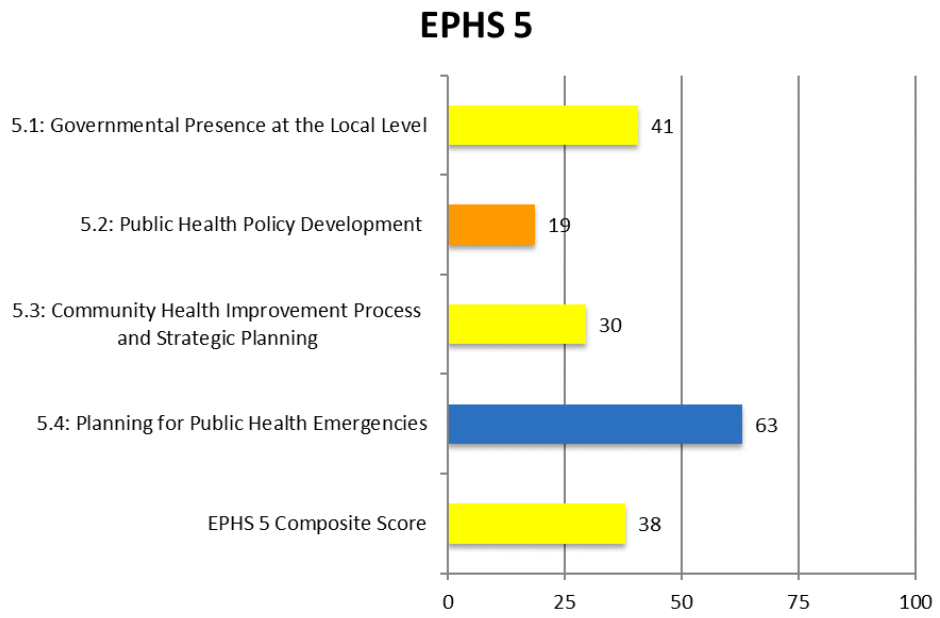
EPHS 5. Develop Policies and Plans that Support Individual Community Health Efforts			
The LPHS includes a local health department (which could also be another governmental entity dedicated to public health). The LPHS works with the community to make sure a strong local health department exists and that it is doing its part in providing 10 Essential Public Health Services. The local health department may be a regional health agency with more than one local area (e.g., city, county, etc.) under its jurisdiction. The local health department is accredited through the Public Health Accreditation Board's (PHAB's) voluntary, national public health department accreditation program.			
5.1.1	Support the work of the local health department (or other governmental local public health entity) to make sure the 10 Essential Public Health Services are provided		46
5.1.2	See that the local health department is accredited through the PHAB's voluntary, national public health department accreditation program		63
5.1.3	Ensure that the local health department has enough resources to do its part in providing essential public health services		13
5.1	Governmental Presence at the Local Level	MODERATE	41
The LPHS develops policies that will prevent, protect, or promote the public's health. Public health problems, possible solutions, and community values are used to inform the policies and any proposed actions, which may include new laws or changes to existing laws. Additionally, current or proposed policies that have the potential to affect the public's health are carefully reviewed for consistency with public health policy through health impact assessments (HIAs). The LPHS and its ability to make informed decisions are strengthened by community member input. The LPHS, together with community members, works to identify gaps in current policies and needs for new policies to improve the public's health. The LPHS educates the community about policies to improve public health and serves as a resource to elected officials who establish and maintain public health policies.			
5.2.1	Contribute to public health policies by engaging in activities that inform the policy development process		38
5.2.2	Alert policymakers and the community of the possible public health effects (both intended and unintended) from current and/or proposed policies		13
5.2.3	Review existing policies at least every three to five years		5
5.2	Public Health Policy Development	MINIMAL	19
The LPHS seeks to improve community health by looking at it from many sides, such as environmental health, healthcare services, business, economic, housing, land use, health equity, and other concerns that affect public health. The LPHS leads a community-wide effort to improve community health by gathering information on health problems, identifying the community's strengths and weaknesses, setting goals, and increasing overall awareness of and interest in improving the health of the community. This community health improvement process provides ways to develop a community-owned community health improvement plan (CHIP) that will lead to a healthier community. With the community health improvement effort in mind, each organization in the LPHS makes an effort to include strategies related to community health improvement goals in their own organizational strategic plans.			
5.3.1	Establish a CHIP, with broad-based diverse participation, that uses information from the CHA, including the perceptions of community members		38
5.3.2	Develop strategies to achieve community health improvement objectives, including a description of organizations accountable for specific steps		38
5.3.3	Connect organizational strategic plans with the CHIP		13
5.3	Community Health Improvement Process and Strategic Planning	MODERATE	30

(continued on next page)

The LPHS adopts an emergency preparedness and response plan that describes what each organization in the system should be ready to do in a public health emergency. The plan describes community interventions necessary to prepare, mitigate, respond, and recover from all types of emergencies, including both natural and intentional disasters. The plan also looks at challenges of possible events, such as biological, chemical, or nuclear events. Practicing for possible events takes place through regular exercises or drills. A workgroup sees that the necessary organizations and resources are included in the planning and practicing for all types of emergencies. The workgroup uses national standards (e.g., CDC's Public Health Emergency Preparedness Capabilities) to advance local preparedness planning efforts.			
5.4.1	Support a workgroup to develop and maintain emergency preparedness and response plans		63
5.4.2	Develop an emergency preparedness and response plan that defines when it would be used, who would do what tasks, what standard operating procedures would be put in place, and what alert and evacuation protocols would be followed		63
5.4.3	Test the plan through regular drills and revise the plan as needed, at least every two years		63
5.4	Planning for Public Health Emergencies	SIGNIFICANT	63

EPHS 5 Discussion Summary

Participants in EPHS 5 explored public health planning and policy development in St. Louis. Overall performance for EPHS 5 was scored **moderate** in St. Louis and ranked fifth out of the 10 EPHSs. The four Model Standards for EPHS 5 were scored from minimal to significant.



The health departments are both pursuing PHAB accreditation and have good support for this process. However, funding cuts are making it increasingly difficult for LPHS partners to deliver the 10 essential services. Participants named several local and state policy and program successes as evidence of collaboration at multiple system levels. An area of improvement would be to expand the understanding of public health to include non-traditional sectors. The city and county health departments are using the MAPP process for their joint CHA and CHIP, though participants noted that sometimes the process can be inflexible for meeting community needs. The group agreed that the LPHS excels at assessment and planning but has room for improvement in the implementation phase. The LPHS has good overall performance in emergency preparedness planning; expanding community involvement in planning and drills is an area of opportunity. Participants remarked that community members do not have a substantive role in decision-making and that a health equity lens needs to be applied to how organizations are brought to the table.

Model Standard 5.1, Governmental Presence at the Local Level, discusses how the LPHS works to provide resources for local health departments and supports the voluntary accreditation of health departments through the Public Health Accreditation Board (PHAB). Participants scored the Performance Measures from minimal to significant, resulting in a composite Model Standard score of moderate.

The local health departments document their many legal responsibilities through city and county charters and codes that cover a variety of enforcement activities. These charters and codes are available online. The group reported that the health departments frequently access legal counsel to ensure policies are developed properly.

The health departments assess their function against national standards for public health departments as defined by PHAB. Both the city and county health departments are currently pursuing PHAB accreditation and both are in the action plan phase. Many partners have contributed to the city and county accreditation process by participating in site visits, governance, and coalitions, for example. The city and county health departments are actively documenting the meetings of their assessment and planning advisory group (the Community Health Advisory Team, or CHAT), which has met monthly since January 2017 to guide the development of the new CHA and CHIP. The respondents noted that the health departments could do a better job communicating to their partners about the accreditation process and documenting how they meet PHAB standards.

Participants discussed how the health departments collaborate with partners to help deliver the 10 essential services. Partners contribute by participating on coalitions, providing data or analysis, and being direct service providers, among many other activities. The group noted that the health departments are getting better at cross-agency partnerships. Participants acknowledged there are good relationships between local organizations and the city and county, but noted that communication could be improved so that local organizations have a better understanding of the scope of the 10 essential services and how they can contribute to their delivery.

The group discussed how inadequate funding is making it increasingly difficult for LPHS organizations to provide the 10 essential services. Participants reported that Missouri has the lowest public health funding in the country, and St. Louis City and County receive a small portion this state funding; as a result, much of the funding for the 10 essential services comes from local sources. LPHS activity is often limited by the availability of grant funding. Respondents noted that the LPHS's reactive (rather than proactive) approach to funding limits efficiency and effectiveness. An area of improvement for the LPHS is for organizations to be explicit about where there are critical funding gaps instead of lamenting the overall lack of funding for public health.

Respondents noted that public health is not at the forefront of public awareness unless there is a crisis. Therefore, when faced with a budget shortfall, public health services are often among the first to be cut. One way the health department has worked around budget cuts is to work with the state to take over certain enforcement activities in return for permit revenue that previously went to the state. In general, the group was concerned that budget cuts are making it more and more difficult for health departments to carry out even the most basic mandated functions to protect public health.

Model Standard 5.2, Public Health Policy Development, discussed how the LPHS contributes to new or modified public health policies, alerts policy makers and the community of possible health impacts from policies, and performs policy review. Participants scored the Performance Measures from low minimal to moderate, resulting in a composite Model Standard score of minimal.

The LPHS contributes to the development of public health policies in various ways. The health departments issue "epi briefs" (data briefs prepared by the epidemiological staff) to local policymakers. The briefs distill findings into a short report and analyze the significance of the data for local policy and legislation. The city health department also put together data papers for the mayoral candidates in 2017; the reports provided data and recommended action from a public health perspective. LPHS partners write letters to the state legislature and testify at hearings in Jefferson City. Often the health departments work with various LPHS partners to bring the data together and communicate recommendations to policymakers. Sometimes LPHS coalitions help write new legislation. There is room for improvement for LPHS partners to engage with policymakers about changing existing policies that are not effective.

Respondents noted that the local public health agencies can provide some guidance and regulatory authority independent of policymakers and elected officials. The local health department has done focus groups with community members and service providers to get input on local ordinances and policies; examples included discussions with restaurant owners on special process food regulations and discussions with homeless individuals and service providers about bed bugs in homeless shelters. The city health department has started reviewing internal policies to address equity in services and has implemented racial equity training for staff.

Participants reported that the county and city were able to pass Tobacco 21 (T-21), which restricts tobacco sales to those aged 21 or older. The LPHS has also contributed to policy development around the Prescription Drug Monitoring Program (PDMP), both locally and across the state. The participants offered T-21 and PDMP as examples of how LPHS partners work together and assume various advocacy roles at multiple levels to achieve large-scale policy change. However, the respondents suggested there needs to be far more advocacy work at the community level (by partners beyond the health department) in order to get real buy-in for policy, instead of simply assuming what the community needs – the example given was regarding an urban agriculture bill.

Participants noted that a narrow view of public health can impede policy change (e.g. gun violence as a public health issue). There are initiatives to expand the understanding of public health across sectors; one example was the 2017 American Public Health Association (APHA) Annual Meeting about the intersection between climate change and health. The group noted that the *Forward Through Ferguson* report and FSOA has generated local momentum on issues that were previously considered outside the realm of public health.

The LPHS does not conduct Health Impact Assessments (HIAs); this is an area of opportunity for the LPHS. Another area of opportunity is to more clearly define what is meant by "community," "community values," and "collaboration," and to consider how the language used in public health settings (including this assessment) can perpetuate disparities. LPHS partners also need to be clearer when discussing "programs" versus "policies" and have common understanding of their distinct differences.

Model Standard 5.3, Community Health Improvement Process and Strategic Planning, looks at LPHS work to establish a Community Health Improvement Plan (CHIP), develop strategies to achieve CHIP objectives, and connect organizational strategic plans to the CHIP. Participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of low moderate.

The city and county health departments are using the MAPP process for their joint CHA and CHIP. 200+ organizations are involved, though respondents wished to see more broad-based and diverse community member participation. Using the MAPP process, LPHS partners are conducting targeted community focus groups to obtain qualitative data, building an online dashboard to display community health indicators, and conducting the LPHSA and FOCA (Forces of Change Assessment), among other activities. Later, the LPHS will develop action teams to address priorities identified by the community. The health departments both used a similar process for their last CHA and CHIP and both departments are tracking the CHIP priorities from 5 years ago. An area of improvement is to adequately identify and document assets and resources in the community during the CHA/CHIP development so that these resources can be used during the implementation phase. An additional area of improvement is to improve communication between the health department and the implementation partners, especially when CHIP initiatives take off and start to operate on their own (examples included the HEAL Partnership and the Healthy Living Coalition). The participants wanted to see a more direct link between the new initiatives and the original CHIP.

The health departments are working to align their CHA and CHIP timelines (required every 3-5 years) with the hospitals' Community Health Needs Assessment (CHNA) timelines (required every 3 years). A regional steering committee comprised of the health departments, health systems, hospitals, Federally Qualified Health Centers (FQHCs), and other stakeholders has been created to align goals and guide implementation of shared strategies from the CHIP and CHNAs. The health departments reported that they are not involved in the development or implementation of the State Health Improvement Plan (SHIP); the extent of involvement was to show which local priorities aligned with state priorities once the SHIP was completed.

The group agreed that the LPHS excels at assessment and planning but has room for improvement in the implementation phases, including not replicating existing work in the LPHS; having the right people at the table; and evaluating, documenting, and sustaining implementation. The health departments reported on lessons learned from the last CHIP. The city health department noted that they did not have adequate staff to properly support CHIP implementation. The county health department remarked on the difficulty of identifying

specific, measurable outcomes, as well as identifying partners who were willing to own the strategies. An opportunity for the LPHS is to ensure that strategies do not get incorporated into the CHIP unless there is ownership.

Model Standard 5.4, Planning for Public Health Emergencies, describes how the LPHS supports workgroups to develop and maintain preparedness and response plans with clearly defined protocols, and tests the plans through regular drills. Participants scored all Performance Measures as significant, resulting in a composite Model Standard score of significant.

Participants identified several organizations that participate in a task force of community partners to develop and maintain local and regional emergency preparedness and response plans, including the health departments, the EMA, and the St. Louis Area Regional Response System (STARRS). Participants reported that the St. Louis Metro and the university systems have robust emergency preparedness plans, but primary and secondary school plans need improvement. The participants noted that there are new Centers for Medicare and Medicaid Services (CMS) rules for emergency preparedness planning that will affect a wider array of agencies and providers (e.g. durable medical equipment companies, home health agencies, pharmacists), which will necessitate better collaboration in this area. One respondent noted that the U.S. Department of Health and Human Services (HHS) Public Health Emergency Preparedness (PHEP) grant and the Hospital Preparedness Program (HPP) grant timelines are not completely aligned, which may impact coordination between public health agencies and hospitals. The group agreed that St. Louis, Kansas City, and Green County have established strong systems for regional emergency preparedness communication, however, there is still room for improvement for better integration of regional plans and formalizing partnerships across Missouri and across state lines.

The participants reported that the All-Hazards Emergency Preparedness and Response Plans are reviewed and revised regularly. After emergency events, the lessons learned and findings are integrated into the plan, and all changes to the plan must be clearly documented. The LPHS is working to increase standardization of plans across the region. Emergency preparedness representatives confirmed that LPHS emergency plans follow national standards. Respondents stated that LPHS partners practice their plans through joint drills and exercises and then evaluate performance. The LPHS performs one full-scale exercise every five years. The group noted that emergency preparedness grants require that the LPHS attend to at-risk populations during emergencies.

Emergency preparedness planning with primary, urgent, walk-in, and home care providers that are not part of a larger healthcare system was identified as a gap for the LPHS. These (oftentimes private) entities are part of a new model of healthcare and are not subject to the same regulations. However, participants recognize their critical role in emergency preparedness (for example, in antibiotic stewardship) and suggested strengthening relationships with these entities. Another area of weakness is the system of patient tracking during emergencies. An area of improvement would be better communication about emergency planning with the general public, particularly making people aware of what happens before, during, and after an

emergency. Including more community members in drills and system tests would be beneficial, though respondents noted that it is sometimes difficult to get volunteers.

EPHS 5 Health Equity Measures

EPHS 5 Health Equity Measures			
This question examines whether community organizations and individuals have a substantive role in deciding policies, procedures, rules, and practices that govern community health efforts. At what level does the LPHS…			
5A	Ensure that community-based organizations and individual community members have a substantive role in deciding what policies, procedures, rules, and practices govern community heath efforts?		13
HE 5	Community Participation in Policy Development	MINIMAL	13

The participants scored Health Equity Measure 5A as minimal. The group agreed that there is a gap in terms of having community members at the table, versus community-based organizations. Participants remarked that community members do not have a substantive role in decision-making; there is a lot of inclusion in the form of tokenism, but less often are key decisions made by the community itself. Further, the LPHS needs to apply a health equity lens to understand which organizations are at the table, and which are not.

The group noted that the health equity questions need to be better integrated into the discussion of the model standards; the fact that the questions are provided in a supplement make it appear to be an afterthought instead of a framework for the assessment. Respondents discussed how environmental policy can often have disparate impact on vulnerable communities and that the LPHS needs to directly address environmental racism.

EPHS 5 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• There are a lot of partners at the table.
• Collaboration between the city and county is significant.
• Build off data we have (e.g. *Forward Through Ferguson* report, FSOA) for policy change.
• Organizations build partnerships regardless of the scope of policy.
• The LPHS is willing to take on policy reforms.
• ThinkHealthSTL.org website is a good resource for data.
• City and county are working together on the CHA together.
• The LPHS is identifying and building on lessons learned in the last round and this round of CHA/CHIP.
• St. Louis, Springfield Greene, and Kansas City have good communication lines for emergency planning.
• Health departments are partnering with hospitals and other community partners on emergency preparedness exercises.

Weaknesses
• Reactive versus proactive funding in the LPHS.
• The LPHS has a shortage of resources (e.g. funding, workforce).
• Policy change takes time.
• Lack of communication and dissemination to those outside public health.
• Limitations and restrictions on hiring for city (e.g. salaries, residency requirements).
• Lack of capacity to engage in policy outside of the public health sector; lack of subject matter expertise in topics like transportation or housing.
• No LPHS voice in the SHIP.
• Reliance on agencies versus individuals; institutional collaboration is significant but we need more community resident participation in CHIP.
• Little flexibility with parts of the CHA/CHIP process; need to be flexible to engage and meet community needs.
• Lack of funding for CHIP implementation.
• The LPHS needs better integration of emergency plans across regions and across state.
• Lack of emergency preparedness staff.
• Gaps in emergency preparedness with providers that fall outside health care systems (e.g. dialysis centers, long-term care facilities, walk-in clinics). Need relationships with these entities.
• No effective system of patient tracking during emergencies.

Short-Term Opportunities
• Implement system to examine equity needs across city and county.
• Educate workforce on how to conduct HIAs.
• Establish process to review existing policies every 3-5 years; process must include health equity analysis and engage community partners in the process.
• Engage community now in policy development.
• Use technology in ways we have not used before.
• Identify and document assets and resources to leverage for CHIP implementation.
• Identify ownership for CHIP strategies.
• Advocate for LPHS involvement in the SHIP.
• CMS rules expand emergency preparedness requirements to additional providers in the LPHS.
• Improve community engagement in emergency preparedness planning and drills.
• Connect with 100 Resilient Cities effort.
• Funding opportunities are available to work on system changes.
• We are ripe/ready for policy change – we have the "why" through the *Forward Through Ferguson* report and FSOA report.

Long-Term Opportunities
• Review workforce restrictions and hiring limitations in the LPHS.
• Improve communication with those outside public sector.
• Conduct HIAs.
• Continue policy reviews regularly.
• Institute community presence as part of policy development procedures; give community primary authority and compensate accordingly.
• Evaluate the CHIP implementation.
• Evaluate the effectiveness and impact of the collaborative CHA/CHIP.
• Review Census 2020 population changes.
• Include health equity in the conversation – not as an afterthought.

Essential Public Health Service 6: Enforce Laws and Regulations that Protect Health and Ensure Safety

To assess performance for Essential Public Health Service 6, participants were asked to address the key question:

When we enforce health regulations are we technically competent, fair, and effective?

Enforcing laws and regulations that protect health and ensure safety encompasses the following:

- Enforcement of sanitary codes, especially in the food industry.
- Protection of drinking water supplies.
- Enforcement of clean air standards.
- Animal control activities
- Follow up of hazards, preventable injuries, and explores regulated disease identified in occupational and community settings.
- Monitoring quality of medical services (e.g. laboratories, nursing homes, and home healthcare providers.).
- Review of new drug, biologic, and medical device applications.

EPHS 6 Group Composition

Partners who gathered to discuss the performance of the local public health system in enforcing laws and regulations that protect health and ensure safety included:

#	Organization Type
1	City and county governmental agencies
2	Community based organizations
1	Environmental health agencies
1	Foundations
1	Health service providers
1	Healthcare systems
1	Health-related coalition leaders
1	Hospitals
1	Non-profit organizations/advocacy groups

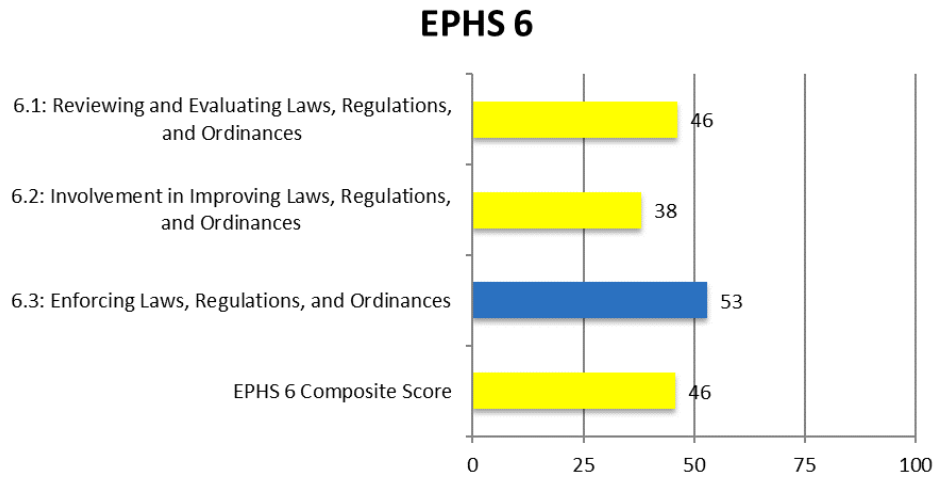
#	Organization Type
1	Professional associations
1	Public health laboratories
3	Public safety and emergency response organizations
1	Substance abuse or mental health organizations
4	The local health department or other governmental public health agency
1	Waste management facilities

EPHS 6 Model Standard Scores

EPHS 6. Enforce Laws and Regulations that Protect Health and Ensure Safety			
The LPHS reviews existing laws, regulations, and ordinances related to public health, including laws that prevent health problems, promote, and protect public health. The LPHS looks at federal, state, and local laws to understand the authority provided to the system and the potential impact of laws, regulations, and ordinances on the health of the community. The LPHS also looks at any challenges involved in complying with laws, regulations, or ordinances, whether community members have any opinions or concerns, and whether any laws, regulations, or ordinances need to be updated.			
6.1.1	Identify public health issues that can be addressed through laws, regulations, or ordinances		46
6.1.2	Stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels		63
6.1.3	Review existing public health laws, regulations, and ordinances at least once every three to five years		13
6.1.4	Have access to legal counsel for technical assistance when reviewing laws, regulations, or ordinances		63
6.1	Reviewing and Evaluating Laws, Regulations, and Ordinances	MODERATE	46
The LPHS works to change existing laws, regulations, or ordinances—or to create new ones—when they have determined that changes or additions would better prevent health problems or protect or promote public health. To promote public health, the LPHS helps to draft the new or revised legislation, regulations, or ordinances; takes part in public hearings; and talks with lawmakers and regulatory officials.			
6.2.1	Identify local public health issues that are inadequately addressed in existing laws, regulations, and ordinances		38
6.2.2	Participate in changing existing laws, regulations, and ordinances, and/or creating new laws, regulations, and ordinances to protect and promote public health		38
6.2.3	Provide technical assistance in drafting the language for proposed changes or new laws, regulations, and ordinances		38
6.2	Involvement in Improving Laws, Regulations, and Ordinances	MODERATE	38
The LPHS sees that public health laws, regulations, and ordinances are followed. The LPHS knows which governmental agency or other organization has the authority to enforce any given public health-related requirement within its community, supports all organizations tasked with enforcement responsibilities, and ensures that the enforcement is conducted within the law. The LPHS has sufficient authority to respond in an emergency event. The LPHS also makes sure that individuals and organizations understand the requirements of relevant laws, regulation, and ordinances. The LPHS communicates the reasons for legislation and the importance of compliance.			
6.3.1	Identify organizations that have the authority to enforce public health laws, regulations, and ordinances		63
6.3.2	Ensure that a local health department (or other governmental public health entity) has the authority to act in public health emergencies		63
6.3.3	Ensure that all enforcement activities related to public health codes are done within the law		63
6.3.4	Educate individuals and organizations about relevant laws, regulations, and ordinances		38
6.3.5	Evaluate how well local organizations comply with public health laws		38
6.3	Enforcing Laws, Regulations, and Ordinances	MODERATE	53

EPHS 6 Discussion Summary

EPHS 6 examines LPHS performance in evaluating, improving, and enforcing health and safety laws and regulations. Overall performance for EPHS 6 was scored **moderate** in St. Louis and ranked second out of the 10 EPHSs. The three Model Standards for EPHS 6 were scored from moderate to high moderate.



Participants identified several strengths for the LPHS in regulation and enforcement, including: knowledgeable staff; processes that rely on collaboration outside of the health departments; data-driven decision-making; training with stakeholders about what legislation asks of them; and regular input from community members through complaint systems. The LPHS is good at engaging stakeholders but struggles with capacity and resources to do engagement at all levels of the system. Communication is often limited outside of the typical public health partners. Areas of opportunity include: moving professional knowledge into accountable actions; building partnerships, especially around the social and structural determinants of health; providing the "why" behind regulation and enforcement activities by telling a compelling narrative; and addressing inequities directly.

Model Standard 6.1, Reviewing and Evaluating Laws, Regulations and Ordinances, emphasizes the impact of policies on the health of the public, and issues of compliance among community members. Participants scored the Performance Measures from minimal to significant, resulting in a composite Model Standard score of high moderate.

The group agreed that many public health areas can best be addressed through laws, regulations, and ordinances, including: food safety; air and water quality; quarantine and isolation; injury prevention; handling and disposal of toxic waste; day care centers and schools; housing and property maintenance; and sanitation. However, participants said there is not widespread agreement in the LPHS on this approach, especially outside of the public health sector. The group noted that public resistance to regulation in general can be a barrier; and even if a need is identified, creation or revision of laws and regulations is often dependent on a small window of political opportunity, rather than a strategic approach.

The LPHS regularly assesses compliance with public health laws, regulations, and ordinances; for example, the health departments examine the outcomes of inspections and identify which violations are occurring to understand where additional enforcement and/or education is needed. The city health department creates an environmental health report that contains data about compliance and key health issues. City residents can log complaints through the Citizen Service Bureau, which provides insight into code compliance. Not all compliance falls under the purview of the health departments, but rather a combination of LPHS organizations. For example, the environmental lab at the county health department tests drinking water for communicable diseases (e.g. e-coli), but the water division is responsible for compliance and regulation.

The health departments follow the model health code, and they are currently in the process of updating the code to U.S. Food and Drug Administration (FDA) standards. The health departments convene meetings with stakeholders to describe how the code changes will affect them. The respondents noted the health departments work to provide culturally competent assistance tailored to different stakeholders. Once the code is revised it goes through legal review and council review before adoption. The participants agreed that governmental entities within the LPHS have access to legal counsel to assist with the review of laws, regulations, and ordinances related to the public's health but noted that review of LPHS laws is fairly irregular and unstructured. The group also noted that politicians are often more willing to create new regulations than review existing regulations.

When state and federal regulatory agencies make changes, they communicate the changes to the LPHS. LPHS staff stay up to date with legal changes through professional associations and professional development (online, in person, and at conferences). The group reported that most environmental staff have local certifications and professional licensing that must be kept up to date, which requires continual training and professional development. In general, the group agreed that public health staff are knowledgeable and up-to-date on the latest regulations but those outside the public health sector may not be. In addition, some of the local written codes and ordinances need to be updated, but it is a slow process.

Model Standard 6.2, Involvement in Improving Laws, Regulations, and Ordinances, explores the extent to which the LPHS participates in advocating for the improvement or creation of policies that affect public health. The participants scored the all Performance Measures as moderate, resulting in a composite Model Standard score of moderate.

The participants identified several examples of local public health issues that are not adequately addressed through existing laws, regulations, and ordinances, including environmental issues (air quality, lead, chemical exposure, toxic sites); substance abuse (prescription drug and heroin abuse); urban agriculture; and tuberculosis. The local tuberculosis treatment centers were closed so tuberculosis patients are reportedly sent to North Carolina for treatment; the participants noted that there have been discussions lately in the LPHS about how to reinstate local tuberculosis treatment. Opioid abuse has been addressed through the

Good Samaritan Law, Narcan distribution, the Prescription Drug Monitoring Program (PDMP), and syringe exchanges, but the group noted these measures are inadequate for the scope of the problem. Sometimes older laws become obsolete or are not comprehensive enough for current practice. For example, the increasing popularity of urban agriculture (e.g. raising chickens) runs against current city health codes.

Participants reported that the health departments were instrumental in the hearings on opioid use and multiple LPHS organizations provided technical guidance and support for proposed opioid legislation. The group noted that it was more difficult to coordinate with hospital systems and pharmacy groups on the opioid issue than some other LPHS actors. Public health representatives are often not invited to the table for the development and revision of laws and regulations that fall outside the traditional scope of public health, especially laws that affect the social and structural determinants of health. An area of opportunity for the LPHS is to have public health representatives invited to these tables to share data, advocate, and build partnerships. One participant noted some traction in this area, in that health department representatives were invited by a legislator to testify at a public safety committee meeting in Jefferson City regarding violence in cities and trauma informed care. An area of opportunity for the LPHS is to obtain technical assistance and professional development to learn how to do Health In All Policies (HIAP) more effectively.

Model Standard 6.3, Enforcing Laws, Regulations, and Ordinances, explores LPHS performance in enforcing policies, including making sure community members are aware of relevant laws, regulations, and ordinances. Participants scored the Performance Measures from moderate to significant, resulting in a composite Model Standard score of high moderate.

The group agreed that the authority of the local health department is clear, however, resources to enforce are limited because direct services often get prioritized over enforcement activities. Another participant noted that public health laws are not respected in the same way that other areas of law are respected (e.g. criminal law). The LPHS provides information to the individuals and organizations that are required to comply with certain laws, regulations, or ordinances through outreach activities; for example, when a tobacco law exemption expired, health department staff went to businesses who were no longer exempt to inform them of the change.

The LPHS assesses compliance with varying frequency due to funding and capacity limitations; some assessment is complaint driven, while other regulations have funding mechanisms that provide for regular audits. The wide variety of businesses paired with the wide scope of regulation means the LPHS partners have difficulty with consistent enforcement across such a large area. However, the group agreed that the LPHS ensures that all enforcement activities related to public health codes are done within the law. Those responsible for enforcement activities are trained on compliance and enforcement through model training programs and continuing education. The food program at the health department utilizes a FDA model for training, continuing education, and auditing of their staff. Many public health staff pursue continuing education to maintain credentials.

EPHS 6 Health Equity Measures

EPHS 6 Health Equity Measures			
This question explores whether the LPHS identifies public health issues that have disproportionate impact and are not adequately addressed through existing laws and regulations. At what level does the LPHS…			
6A	Identify local public health issues that have a disproportionate impact on historically marginalized communities (that are not adequately addressed through existing laws, regulations, and ordinances)?		13
HE 6	Identify Issues with Disproportionate Impact on Marginalized Communities	MINIMAL	13

Participants scored Health Equity Measure 6A as minimal. The group agreed that the LPHS does a poor job identifying local public health issues that have a disproportionate impact on historically marginalized communities. There is much room for improvement for the LPHS to educate individuals and organizations about relevant laws, regulations, and ordinances, particularly with populations who experience health disparities.

EPHS 6 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• Public health workers take part in professional development and continuing education.
• Public health workers are up-to-date on the latest regulations and standards.
• The environmental code is continuously updated.
• LPHS regulation is data-driven.
• There is significant collaboration between city and county.
• There is great momentum (with or without resources) around issues where LPHS partners show passion (e.g. PDMP).
• Certain stakeholders are well trained in laws and regulations.
• There are many opportunities to gather community input from the Citizen Service Bureau.

Weaknesses
• Local ordinances are not updated quickly enough.
• The LPHS lacks resources to review policies.
• It is unclear if public health comments on laws and regulations are given attention and/or consideration by lawmakers.
• Lack of funding for improvement of regulations, laws, and ordinances.
• Policy is based on crisis (reactionary).
• Overall lack of resources for compliance.
• Scale of enforcement is very large.
• Enforcement is not at system level.

Short-Term Opportunities
• Use knowledge for action; if workforce and ordinances are up-to-date on regulations, then what is preventing better health outcomes (e.g. blood lead levels still unacceptably high)?
• Identify laws to review with timelines, accountable entities, and resources; make ordinances agree with federal laws and standards.
• Get public health invited to tables it is not traditionally invited to. Be proactive about identifying tables where public health should have a seat.
• Include the human interest aspect in the quantitative data (the “so what”) to make it more approachable and relatable.
• The LPHS has a few examples where funding for compliance is built into the program; this could be used as a model.

• Improve knowledge about regulations and how they protect health, so more LPHS organizations and individuals can assist with enforcement.
• Improve messaging about laws and regulations, especially to populations that experience disparities.

Long-Term Opportunities
• Use knowledge for action; if workforce and ordinances are up-to-date on regulations, then what is preventing better health outcomes (e.g. blood lead levels still unacceptably high)?
• Include the human interest aspect in the quantitative data (the "so what") to make it more approachable and relatable.

Essential Public Health Service 7: Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable

To assess performance for Essential Public Health Service 7, participants were asked to address the key question:

Are people in our community receiving the health services they need?

Linking people to needed personal health services and ensuring the provision of health care when otherwise unavailable (sometimes referred to as outreach or enabling services) encompasses the following:

- Assurance of effective entry for socially disadvantaged people into a coordinated system of clinical care.
- Culturally and linguistically appropriate materials and staff to ensure linkage to services for special population groups.
- Ongoing "care management"
- Transportation services
- Targeted health education/promotion/disease prevention to high-risk population groups

EPHS 7 Group Composition

Partners who gathered to discuss the performance of the local public health system in linking people to needed personal health services and assuring the provision of healthcare when otherwise unavailable included:

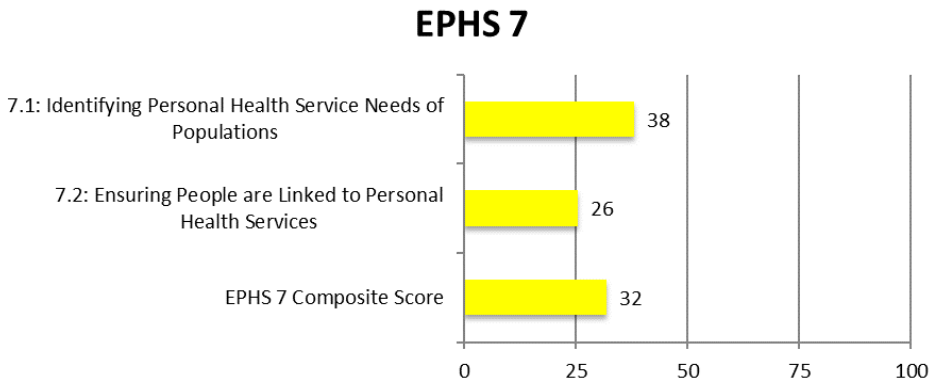
#	Organization Type
1	Economists
1	Health officer/public health director
1	Health-related coalition leaders
3	Hospitals
1	Non-profit organizations/advocacy groups
2	Primary care clinics, community health centers, FQHCs
1	Professional associations
1	Public and private schools
2	Social service providers
1	Substance abuse or mental health organizations
3	The local health departments
1	Universities, colleges, and academic institutions

EPHS 7 Model Standard Scores

EPHS 7. Link People to Needed Personal Health Services and Assure the Provision of Health Care When Otherwise Unavailable			
The LPHS identifies the personal health service needs of the community and identifies the barriers to receiving these services, especially among particular groups that may have particular difficulty accessing personal health services. The LPHS has defined roles and responsibilities for the local health department (or other governmental public health entity) and other partners (e.g., hospitals, managed care providers, and other community health agencies) in relation to overcoming these barriers and providing services.			
7.1.1	Identify groups of people in the community who have trouble accessing or connecting to personal health services		63
7.1.2	Identify all personal health service needs and unmet needs throughout the community		38
7.1.3	Defines partner roles and responsibilities to respond to the unmet needs of the community		13
7.1.4	Understand the reasons that people do not get the care they need?		38
7.1	Identifying Personal Health Service Needs of Populations	MODERATE	38
The LPHS partners work together to meet the diverse needs of all populations. Partners see that persons are signed up for all benefits available to them and know where to refer people with unmet personal health service needs. The LPHS develops working relationships between public health, primary care, oral health, social services, mental health systems, and organizations that are not traditionally part of the personal health service system, such as housing, transportation, and grassroots organizations.			
7.2.1	Connect or link people to organizations that can provide the personal health services they may need		38
7.2.2	Help people access personal health services in a way that takes into account the unique needs of different populations		13
7.2.3	Help people sign up for public benefits that are available to them (e.g., Medicaid or medical and prescription assistance programs)		38
7.2.4	Coordinate the delivery of personal health and social services so that everyone in the community has access to the care they need		13
7.2	Ensuring People Are Linked to Personal Health Services	MODERATE	26

EPHS 7 Discussion Summary

Participants in EPHS 7 explored LPHS performance in connecting community members to the health services they need. Overall performance for EPHS 7 was scored **moderate** in St. Louis and ranked sixth out of the 10 EPHSs. The two Model Standards for EPHS 7 were scored from low moderate to moderate.



Participants reported that the LPHS has robust assessment and research activity; however, the assessments are not well coordinated and the LPHS is not effectively translating the data into action. Other weaknesses for the LPHS included: lack of trust from marginalized groups and difficulty linking certain populations to health services; poor access to services because of transportation and language barriers; and lack of mental health service capacity. The participants identified several opportunities for the LPHS, including working with funders to incentivize collaboration; shifting the notion of "inclusion" from a one-time event to on-going involvement; and connecting "boots on the ground" with data and assessments to improve outreach and linkage to health services

Model standard 7.1, Identifying Personal Health Service Needs of Populations, looks at the ability of the LPHS to identify groups in the community who have trouble accessing personal health services and to define responsibilities for partners to respond to the unmet needs of the community. Participants scored the Performance Measures from minimal to significant, resulting in a composite Model Standard score of moderate.

The LPHS assesses many types of personal health and auxiliary services, including primary medical care, emergency care, mental health services, wait times, satisfaction with services, and transportation, among others.

The participants described a robust assessment infrastructure in the LPHS to understand which health services are used by populations who may experience barriers to care. The Integrated Health Network, in partnership with the Regional Health Commission and the Behavioral Health Network, produces an annual regional access to care report. Some service providers perform regular follow-ups with patients to assess access to care. To assess the needs of those who are not already in the system, the hospitals conduct CHNAs and the health departments conduct

CHAs. Other reports include *Understanding Our Needs*, FSOA, and the Missouri Foundation for Health reports on system barriers for LGBT populations. Gateway to Better Health conducts a phone survey of the uninsured population.

These assessments take into account many populations who may experience barriers to accessing care, including children, persons over 65, persons with low income, persons with cultural or language barriers, racial or ethnic minorities, uninsured persons, and LGBT individuals, among others. The participants noted that assessment data are disaggregated by race (black and white) but the LPHS needs to expand beyond this binary. In addition, the group noted that sex is measured (male and female) but non-binary gender is often not. Respondents said that data by age group can be difficult to disaggregate beyond 0-18, 19-64, and 65+. Participants reported that language barriers and lack of interpreters has impeded collection of information from refugees and immigrants in the LPHS.

Other weaknesses of the LPHS in identifying health service needs include lack of trust from vulnerable groups; differing data quality from LPHS organizations; and lack of defined roles to respond to the unmet needs of the community. While respondents agreed that there are participatory roles (e.g. FQHC boards or the HIV/AIDS planning council) for persons who come from communities that face barriers to accessing care, more engagement, inclusion, and shared-decision making should occur. Overall the group agreed that more assessment is not needed, but the LPHS needs to improve quality of assessment with certain populations and to better disseminate the information that is gathered. Additionally, the participants agreed that the LPHS has some individuals and organizations that understand the reasons why people do not get the care they need, but the system could do a better job of promoting this understanding across individuals and systems.

Model Standard 7.2, Ensuring People Are Linked to Personal Health Services, discusses how well the LPHS coordinates delivery of personal health services and social services to ensure everyone has access to the care they need. The participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of low moderate.

The group described several organizations in the LPHS that coordinate the delivery of personal health and social services, including Integrated Health Network's Community Referral Coordinator Program, which coordinates between hospitals and community health centers; Behavioral Health Response, which coordinates mental health services; and Casa de Salud, which helps immigrants and refugees navigate the healthcare system. In general, the respondents agreed that the LPHS does a good job of providing referrals for people who are in the system (those who "walked through the door"); however, there are gaps for those outside the system. Participants agreed that sometimes case management or other services are pushed upon patients, and they can become overwhelmed. The key is to make the information or services relevant to the patient.

Participants noted several barriers to providing services and to ensuring continuity of services, including language, mistrust, lack of awareness, and lack of engagement. When a patient that

speaks limited or no English is referred to another agency, the referring party may not know if there is language assistance available at the other agency. In terms of awareness, people cannot obtain services if they do not know the services exist. The group indicated that health fairs are a means for people in the community to have face to face interaction with representatives from healthcare, which can both build relationships (trust) and increase awareness of services. Respondents noted that CHWs and coaches can help increase engagement with certain populations. The participants described patient engagement as twofold: engagement with the system and engagement with their own health. Generally, there tend to be fewer barriers to care for children than adults because of state policies, although the group indicated that the LPHS has improved linkages for certain adult populations, such as pregnant women.

A particular area of concern for the group was the provision mental health services in the LPHS. On one end, participants recognize that stigma surrounding mental health heavily influences whether or not patients from certain populations choose to seek mental health services or follow through on referrals for such services. Mistrust of institutions also factors into mental health service access among vulnerable populations. On the other end, the group reported that LPHS capacity for mental health treatment has declined substantially, so there is often nowhere to send patients even if a mental health need is identified.

Organizations in the LPHS that help people sign up for public benefits include hospitals, legal services, International Institute, and Cover Missouri (a project of the Missouri Foundation for health), among others. Although Performance Measure 7.2.3 was scored moderate, the participants said it was important to distinguish between LPHS performance at linking people inside the system (significant level) versus those outside the system (minimal level) to public benefits.

EPHS 7 Health Equity Measures

EPHS 7 Health Equity Measures			
These questions explore barriers for subpopulations, the influence of social injustices on access to personal health services, and inequitable distribution of resources. At what level does the LPHS…			
7A	Identify any populations that may experience barriers to personal health services based on factors such as on age, education level, income, language barriers, race or ethnicity, disability, mental illness, access to insurance, sexual orientation and gender identity, and additional identities outlined in Model Standard 7.1?		38
7B	Identify the means through which historical social injustices specific to the jurisdiction (e.g., the inequitable distribution health services and transportation resources) may influence access to personal health services?		13
7C	Work to influence laws, policies, and practices that maintain inequitable distributions of resources that may influence access to personal health services?		38
HE 7	Inequitable Access to Personal Health Services	MODERATE	30

The participants scored Health Equity Measures 7A-7C from minimal to moderate, resulting in a composite Health Equity score of low moderate. The group agreed that the LPHS does a good job of identifying and assessing populations that experience barriers to personal health services but is not able to stratify the data to the desired levels. The group described LPHS efforts to change policies that maintain inequities, including Gateway to Better Health, FSOA, and engaging in statewide debate over Medicaid policy.

EPHS 7 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths

• Strong assessment and reporting:
  ○ FSOA
  ○ Integrated Health Network, Regional Health Commission, Behavioral Health Network annual access to care report
  ○ Gateway to Better Health telephone survey of uninsured population
  ○ Missouri Foundation for Health research into barriers for LGBTQ population
  ○ CHNA and CHA

• Patients who are in the system (accessing care) are linked to care.

Weaknesses
• Assessments are not disseminated to the people who actually need it.
• Assessments are not coordinated.
• Barriers to access include: language; mistrust from vulnerable groups; lack of awareness; lack of engagement; and transportation.
• Lack of capacity, especially for mental health treatment.
• Patients who are not in the system (not accessing care) are not linked to care.

Short-Term Opportunities
• Increase inclusion of community partners – integrate and engage them as consistent players. Shift from one-time inclusion to system-wide, repetitive inclusion.
• Reduce duplication of assessments; align stakeholders' timelines.
• Work with funders to prevent duplication; better incentivize collaboration in grant rewards.
• Align the Missouri Foundation for Health access project to the regional plan.
• Connect "boots on the ground" to data.
• Public health should be leading, educating, aligning, and driving.
• Define roles and responsibilities, and hold leadership accountable for collaboration.

Long-Term Opportunities
• Coordinate public benefit access through non-healthcare systems that patients participate in (e.g. employers, faith organizations).
• Increase follow up from urgent care.
• Provide transportation to patients.
• Support schools of nursing to increase mental health capacity, e.g. mental health nurse practitioners.
• Increase minority/racial diversity in health care positions.

Essential Public Health Service 8: Assure a Competent Public Health and Personal Healthcare Workforce

To assess performance for Essential Public Health Service 8, participants were asked to address two key questions:

Do we have a competent public health staff?

Ensuring a competent public and personal health care workforce encompasses the following:

- Education, training, and assessment of personnel (including volunteers and other lay community health workers) to meet community needs for public and personal health services.
- Efficient processes for licensure of professionals.
- Adoption of continuous quality improvement and lifelong learning programs.
- Active partnerships with professional training programs to ensure community-relevant learning experiences for all students.
- Continuing education in management and leadership development programs for those charged with administrative/executive roles.

EPHS 8 Group Composition

Partners who gathered to discuss the performance of the local public health system in assuring a competent public health and personal healthcare workforce included:

#	Organization Type
1	Health officer/public health director
1	Health service providers
1	Healthcare systems
1	Substance abuse or mental health organizations
3	The local health department or other governmental public health agency
5	Universities, colleges, and academic institutions

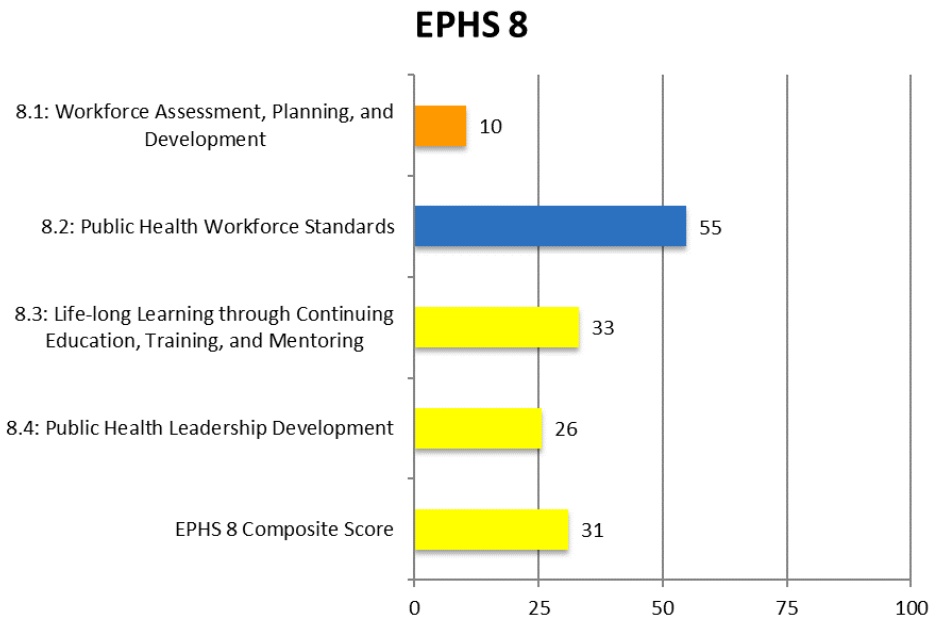
EPHS 8 Model Standard Scores

EPHS 8. Assure a Competent Public Health and Personal Health Care Workforce			
The LPHS assesses the local public health workforce—all who contribute to providing the 10 Essential Public Health Services for the community. Workforce assessment looks at what knowledge, skills, and abilities the local public health workforce needs and the numbers and kinds of jobs the system should have to adequately prevent health problems and protect and promote health in the community. The LPHS also looks at the training that the workforce needs to keep its knowledge, skills, and abilities up to date. After the workforce assessment determines the number and types of positions the local public health workforce should include, the LPHS identifies gaps and works on plans to fill those gaps.			
8.1.1	Complete a workforce assessment, a process to track the numbers and types of LPHS jobs—both public and private sector—and the associated knowledge, skills, and abilities required of the jobs		13
8.1.2	Review the information from the workforce assessment and use it to identify and address gaps in the LPHS workforce		13
8.1.3	Provide information from the workforce assessment to other community organizations and groups, including governing bodies and public and private agencies, for use in their organizational planning		5
8.1	Workforce Assessment, Planning, and Development	MINIMAL	10
The LPHS maintains standards to see that workforce members are qualified to do their jobs, with the certificates, licenses, and education that are required by law or by local, state, or federal guidance. Information about the knowledge, skills, and abilities that are needed to provide the 10 Essential Public Health Services are used in personnel systems, so that position descriptions, hiring, and performance evaluations of workers are based on public health competencies.			
8.2.1	Ensure that all members of the local public health workforce have the required certificates, licenses, and education needed to fulfill their job duties and comply with legal requirements		63
8.2.2	Develop and maintain job standards and position descriptions based in the core knowledge, skills, and abilities needed to provide the 10 Essential Public Health Services		38
8.2.3	Base the hiring and performance review of members of the public health workforce in public health competencies		63
8.2	Public Health Workforce Standards	SIGNIFICANT	55
The LPHS encourages lifelong learning for the local public health workforce. Both formal and informal opportunities in education and training are available to the workforce, including workshops, seminars, conferences, and online learning. Experienced staff persons are available to coach and advise newer employees. Interested workforce members have the chance to work with academic and research institutions, particularly those connected with schools of public health, public administration, and population health. As the academic community and the local public health workforce collaborate, the LPHS is strengthened. The LPHS trains its workforce to recognize and address the unique culture, language, and health literacy of diverse consumers and communities and to respect all members of the community. The LPHS also educates its workforce about the many factors that can influence health, including interpersonal relationships, social surroundings, physical environment, and individual characteristics (such as economic status, genetics, behavioral risk factors, and healthcare).			
8.3.1	Identify education and training needs and encourage the public health workforce to participate in available education and training		38
8.3.2	Provide ways for public health workers to develop core skills related to the 10 Essential Public Health Services		38
8.3.3	Develop incentives for workforce training, such as tuition reimbursement, time off for attending class, and pay increases		38
8.3.4	Create and support collaborations between organizations within the LPHS for training and education		38
8.3.5	Continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health		13
8.3	Life-Long Learning through Continuing Education, Training, and Mentoring	MODERATE	33

Leadership within the LPHS is demonstrated by organizations and individuals that are committed to improving the health of the community. Leaders work to continually develop the LPHS, create a shared vision of community health, find ways to achieve the vision, and ensure that local public health services are delivered. Leadership may come from the local health department, from other governmental agencies, non-profits, the private sector, or from several LPHS partners. The LPHS encourages the development of leaders that represent the diversity of the community and respect community values.			
8.4.1	Provide access to formal and informal leadership development opportunities for employees at all organizational levels		38
8.4.2	Create a shared vision of community health and the LPHS, welcoming all leaders and community members to work together		38
8.4.3	Ensure that organizations and individuals have opportunities to provide leadership in areas where they have knowledge, skills, or access to resources		13
8.4.4	Provide opportunities for the development of leaders who represent the diversity of the community		13
8.4	Public Health Leadership Development	MODERATE	26

EPHS 8 Discussion Summary

Participants in EPHS 8 discussed public health workforce development in the LPHS. Overall performance for EPHS 8 was scored **moderate** in St. Louis and ranked eighth out of the 10 EPHSs. The four Model Standards for EPHS 8 were scored from minimal to low significant.



The LPHS demonstrates good leadership; momentum for CHWs; and an increasingly collaborative environment for a shared vision. Weaknesses for the LPHS include a lack of diversity in the public health workforce; challenges with recruitment and retention due to more competitive private sector salaries; inadequate training opportunities; a lack of decision makers involved at all organizational levels; and no system-wide assessment of the public health workforce. The group identified several areas of opportunity, including: complete a system-wide workforce assessment; be intentional about health equity; partner with the St. Louis Community College to assess the public health workforce; increase education at the front of the public health pipeline; increase continuing education and professional development for existing workforce; and foster intentional connections between human resources departments and hiring directors.

Model Standard 8.1, Workforce Assessment, Planning, and Development, explores how well the LPHS is assessing its workforce as a system. Participants scored the Performance Measures from low minimal to minimal, resulting in a composite Model Standard score of minimal.

The group listed several organizations that conduct workforce assessments, including: St. Louis Regional Chamber, Promise Zone, Center for Clinical Excellence, St. Louis University, and St. Louis County. Participants noted that LPHS organizations have implemented plans for addressing gaps in the workforce, but the approaches are highly localized and specific to regions or agencies. A major weakness of the LPHS is the lack of regional or system-wide

workforce assessment and implementation. Respondents indicated that Washington University and St. Louis University will be important partners to fill this need. Workforce assessments use a combination of statewide and citywide metrics on health equity, implementation, evaluation, and capacity. Participants described efforts to ask LPHS employers what skills they need to fill positions and if they are satisfied with student training and preparation. The group emphasized that the LPHS must account for the true needs of the community in the preparation of students.

The group indicated that retention is a major problem in the LPHS; monetary compensation is far lower in the public than the private sector. Lack of a clear career path is a barrier for students to entering and staying in the public health field. The quality of the applicant pool has diminished because salaries and job descriptions have not been updated. Participants noted that FQHCs have had trouble maintaining a stable workforce. Some gaps identified for the LPHS include: students entering the workforce are not adequately prepared for data analysis; gaps in police social work; and SSM Health is concerned about the nursing shortage. Participants reported that the LPHS lacks diversity in its public health workforce; the lack of diversity creates linguistic barriers, and relying on interpretation services is difficult.

Local higher education institutions (Washington University, St. Louis University, Lindenwood) are an asset in terms of training for the regional workforce. Participants noted there are organizations that partner with school districts to bring high school students into the field (pipelines). It would be beneficial to initiate a partnership with the community colleges. The respondents agreed the LPHS needs to create more opportunities for training, certificate programs, and continuing education.

Model Standard 8.2, Public Health Workforce Standards, explores how the LPHS ensures that workforce members are qualified and that hiring and performance reviews are based on public health competencies. Participants scored the Performance Measures from moderate to significant, resulting in a composite Model Standard score of low significant.

Participants reported that guidelines, licensure, and certification in the LPHS are highly specialized and location specific. Organizations in the LPHS comply with requirements through annual performance evaluations and checking and maintaining certifications. Respondents noted that the city and county are similar in how they comply with requirements. Participants said that sometimes the best qualified applicants are not able to be hired or retained because of lack of certification and licensure. FSOA developed a framework for certification and what the LPHS needs to do to ensure strong healthcare workers are not forced out. The group agreed that human resources needs to improve written job standards and position descriptions to hire the correct people. All or most organizations in the LPHS conduct some form of annual performance evaluation. The city and county health departments each require an annual performance evaluation, and they have a separate evaluation for leadership.

Model Standard 8.3, Life-long Learning Through Continuing Education, Training, and Mentoring, reviews LPHS performance in identifying education and training needs, providing

incentives for workforce training, and creating collaborations between organizations for training and education.

The group agreed that the LPHS needs to formalize the interactions between staff of LPHS organizations and faculty from academic and research institutions, to create "academic public health departments." Most current interactions are not formal or institutionalized. The LPHS has valuable academic assets. Building stronger relationships with academic institutions is critical, and fills a need for LPHS organizations to access libraries, information, and support. Respondents suggested incentivizing deeper interaction and relationships. The county health department noted that it is difficult to develop personal relationships with Washington University because of the size of the institution, while St. Louis University is more approachable and has already established collaboration on workforce development, training, and partnership with county public health.

Organizations in the LPHS dedicate resources for training and education. Integrated Health Network works with medical school students, however a gap is that they do not focus on residency. St. Louis University is a site for chemical emergency training, however it is not widely publicized. When there is a big training opportunity in the LPHS, CBOs do participate, but there are many that are still unaware of such training. The group agreed an area of improvement is to establish stronger awareness and communication about these training resources. At Washington University Institute for Public Health, training is typically connected to the job function or needs of the organization. St. Louis Community College has an apprenticeship model to help identify the needs of employers. The group agreed the LPHS lacks a system wide assessment to identify what is needed in terms of expertise, competencies, and training.

Refresher courses are delivered online and through group classes and presentations. Emergency preparedness training occurs on a regular basis in the hospitals. Many organizations in the LPHS participate in emergency preparedness drills. The group agreed that training opportunities in the LPHS are not comprehensive, and there is a need for training in the social determinants of health. Incentives are offered to the workforce to participate in educational and training experiences, such as tuition reimbursements, recognition from peers, paid-time off, and maintenance of licensures and requirements for employment. The city health department does not offer incentives at this time due to financial burden.

Model Standard 8.4, Public Health Leadership Development, discusses the leadership development in the LPHS including creating a shared vision of community health and providing opportunities for the development of leaders that reflect diversity in the community. The participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of low moderate.

The group acknowledged that the community is collaborating more than it has in the past. Organizations are working together on decision making about how finite resources should be spent and which priorities should align across organizations. The Internal Revenue Services (IRS) has formalized this process through the hospital requirements for community benefit and the

CHNA. LPHS organizations ensure informed participation in decision-making through email lists, community forums, and networking/personal relationship building. However, the group agreed there is much work to be done around a shared vision for the LPHS. Fragmentation in the region makes it difficult to have cohesive leadership and a unified vision. "Turf issues" become problematic when many organizations are working on an issue but want to own the problem individually.

Some organizations within the LPHS promote the development of leadership skills. Washington University's Brown School curriculum is partially designed to strengthen leadership skills. Community advisory boards and youth advisory boards have been established to provide insight and direction. In general, however, the group agreed there is little access to leadership training and development in the LPHS. Even less access is afforded to those at the lower tiers of organizations. As one participant put it, "There is a club mentality in St. Louis. You are either in the club of leadership or you are not." Budgetary constraints and staff turnover make it difficult for employees to make time for leadership development; the backlog of work and burden of bureaucracy is often a barrier for the city health department. The respondents noted that without support from current leadership, it is difficult to promote the development of these skills. The group indicated that the LPHS is in need of more mentors and coaches across all sectors.

Respondents acknowledged that the LPHS struggles to recruit and retain leaders who represent the diversity of the community. They noted that hospitals have signed the American Hospital Association pledge to push for more diversity.

EPHS 8 Health Equity Measure

EPHS 8 Health Equity Measures			
These questions explore how the LPHS is developing staff capacity to support health equity, the inclusiveness of workforce assessment planning, and the recruitment of diverse, multidisciplinary staff at LPHS organizations. At what level does the LPHS…			
8D	Recruit and train staff members from multidisciplinary backgrounds that are committed to achieving health equity?		13
8E	Recruit and train staff members that reflect the communities they serve?		13
HE 8	Health Equity in Workforce Development	MINIMAL	13

The participants scored Health Equity Measures 8D and 8E at the minimal level. The group agreed that the LPHS is recruiting staff that are committed to achieving health equity at a minimal level. Most people do not know about health inequities or health disparities. Commitment to health equity is difficult to measure and not purposefully sought out. Participants agreed that recruiting and training staff members that reflect the communities they serve is a weakness for the LPHS, and they assumed there is little being done to fix this problem.

EPHS 8 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• Regional assessment of community health workforce will be conducted summer 2017.
• Community colleges are a resource for workforce development.
• St. Louis University and Washington University are valuable public health workforce assets.
• Collaboration of FQHCs and hospitals on workforce stabilization for the safety net via Integrated Health Network Board of Directors.
• FSOA, in partnership with the HEAL partners, developed a set of recommendations for CHW certification that is being developed by Missouri DHSS.
• Institute for Medical Education & Research (IMER) funds community based training to medical schools (e.g. St. Louis University and Washington University) – the gap is that it does not focus on residencies.
• There are many great leaders in the St. Louis region.
• Many organizations are at the table to work to accomplish goals.

Weaknesses
• FQHC workforce retention of physicians is a gap/shortfall – Integrated Health Network has identified workforce stabilization as a strategic focus.
• There are challenges in engaging in assessments and training, including lack of time to attend and funding to facilitate.
• Civil service classifications are a major barrier.
• Lack of regional or system-wide workforce assessment and implementation; no consistency.
• Workforce diversity remains a major system weakness.
• Lack of career ladders for entry-level workers.
• Lack of continuing education opportunities for the public health workforce.
• Decision-maker involvement is critical both politically and financially.
• Training opportunities are sporadic and topic specific; not system wide.
• Unequal distribution of incentives for workforce development.
• Difficulty with recruitment.
• Leadership in St. Louis still underrepresents the diversity of the region.
• Much of the leadership development that occurs is on the job training or trial and error.
• There are no “on-ramps” for leadership beyond a selected few.
• Our leaders do not reach out in a formal way to grow future leaders.
• Limited leadership opportunities for diversity.

• We are encouraging knowledge and language around health equity but that doesn't mean people know how to integrate appropriate changes to their work to take health equity into account.
• We do not apply health equity with intention across the region.

Short-Term Opportunities
• Begin early recruitment at the high school level.
• Partner with St. Louis Community College for future workforce assessment.
• Think more intentionally about continuing education and professional development.
• Align public health assessments with other workforce assessments.
• Invite those who create and implement personnel policies, job descriptions, and starting salaries to participate in these discussions.
• Make credentialing and certification driven by employer needs.
• More continual training on non-certification or licensure topics (ex: cultural competencies).
• Make continuing education opportunities more widely available.
• Apply critical race theory to public health.
• More opportunities for leadership and networking to know the right people.
• More facilitated training across public health organizations.
• Standardize job descriptions, hiring processes, and formal training.

Long-Term Opportunities
• Utilize a race equity lens.
• Schools should offer education/curriculum based on community need.
• Improve linkage of students to help LPHS organizations pilot and test new solutions.
• Localize vocation specific assessments.
• Assessment of overlapping workforce and infrastructure should coordinate (ex: case management).
• Performance reviews are standardized and not specific to positions.
• Opportunity for Washington University's Brown School Summer Institute to focus on public health-specific skill development.
• Public health infrastructure to inform St. Louis Community College, St. Louis Agency on Training and Employment, etc. for workforce training needs; a system wide public health workforce assessment is needed.
• Formalize regional training for public health system staff.
• Learn meaningful community engagement strategies from youth serving organizations and social services.
• Empower our citizens to take leadership roles.
• Grow leaders in St. Louis.
• Intentionality is required for achieving and promoting health equity.
• Infuse health equity into policy.

Essential Public Health Service 9: Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services

To assess performance for Essential Public Health Service 9, participants were asked to address three key questions:

Are we meeting the needs of the population we serve?
Are we doing things right?
Are we doing the right things?

Evaluating effectiveness, accessibility, and quality of personal and population-based health services encompasses the following:

- Assessing program effectiveness through monitoring and evaluating implementation outcomes and impact.
- Providing information necessary for allocating resources and reshaping programs.

EPHS 9 Group Composition

Partners who gathered to discuss the performance of the local public health system in evaluating effectiveness, accessibility, and quality of personal and population-based health services included:

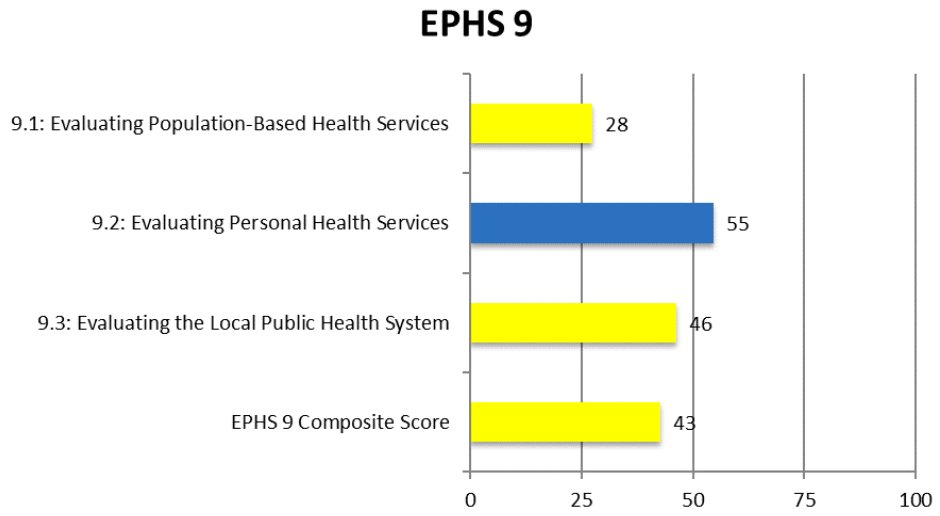
#	Organization Type
1	Economists
1	Health officer/public health director
1	Health-related coalition leaders
3	Hospitals
1	Non-profit organizations/advocacy groups
2	Primary care clinics, community health centers, FQHCs
1	Professional associations
1	Public and private schools
2	Social service providers
1	Substance abuse or mental health organizations
3	The local health departments
1	Universities, colleges, and academic institutions

EPHS 9 Model Standard Scores

EPHS 9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services			
The LPHS evaluates population-based health services, which are aimed at disease prevention and health promotion for the entire community. Many different types of population-based health services are evaluated for their quality and effectiveness in targeting underlying risks. The LPHS uses nationally recognized resources to set goals for their work and identify best practices for specific types of preventive services (e.g., *Healthy People 2020* or *The Guide to Community Preventive Services*). The LPHS uses data to evaluate whether population-based services are meeting the needs of the community and the satisfaction of those they are serving. Based on the evaluation, the LPHS may make changes and may reallocate resources to improve population-based health services.			
9.1.1	Evaluate how well population-based health services are working, including whether the goals that were set for programs and services were achieved		38
9.1.2	Assess whether community members, including vulnerable populations, are satisfied with the approaches taken toward promoting health and preventing disease, illness, and injury		13
9.1.3	Identify gaps in the provision of population-based health services		46
9.1.4	Use evaluation findings to improve plans, processes, and services		13
9.1	Evaluating Population-Based Health Services	MODERATE	28
The LPHS regularly evaluates the accessibility, quality, and effectiveness of personal health services. These services range from preventive care, such as mammograms or other preventive screenings or tests, to hospital care, to care at the end of life. The LPHS sees that the personal health services in the area match the needs of the community, with available and effective care for all ages and groups of people. The LPHS works with communities to measure satisfaction with personal health services through multiple methods, including surveys with persons who have received care and others who might have needed care or who may need care in the future. The LPHS uses findings from the evaluation to improve services and program delivery, using technological solutions, such as electronic health records, when indicated, and modifying organizational strategic plans, as needed.			
9.2.1	Evaluate the accessibility, quality, and effectiveness of personal health services		63
9.2.2	Compare the quality of personal health services to established guidelines		71
9.2.3	Measure user satisfaction with personal health services		71
9.2.4	Use technology, like the Internet or electronic health records, to improve quality of care		30
9.2.5	Use evaluation findings to improve services and program delivery		38
9.2	Evaluating Personal Health Services	SIGNIFICANT	55
The LPHS evaluates itself to see how well it is working as a whole. Representatives from all groups (public, private, and voluntary) that provide all or some of the 10 Essential Public Health Services gather to conduct a systems evaluation. Together, using guidelines (such as this Local Instrument) that describe a model LPHS, participants evaluate LPHS activities and identify areas of the LPHS that need improvement. The results of the evaluation are also used during a community health improvement process.			
9.3.1	Identify all public, private, and voluntary organizations that contribute to the delivery of the 10 Essential Public Health Services		63
9.3.2	Evaluate how well LPHS activities meet the needs of the community at least every five years, using guidelines that describe a model LPHS and involving all entities contributing to the delivery of the 10 Essential Public Health Services		71
9.3.3	Assess how well the organizations in the LPHS are communicating, connecting, and coordinating services		13
9.3.4	Use results from the evaluation process to improve the LPHS		38
9.3	Evaluating the Local Public Health System	SIGNIFICANT	46

EPHS 9 Discussion Summary

EPHS 9 explores how the LPHS evaluates the effectiveness of personal and population-based services, and the LPHS itself. Overall performance for EPHS 9 was scored **moderate** in St. Louis and ranked third out of the 10 EPHSs. The three Model Standards for EPHS 9 were scored from low moderate to low significant.



The LPHS has several mechanisms to evaluate population and personal health services, including focus groups, pay for performance models, and customer satisfaction surveys. However, a great deal of evaluation data are not accessible to the LPHS (especially data from the private sector) or the data sources are not clean enough for meaningful interpretation. Improvement opportunities include improving client evaluation instruments to make them more user-friendly; improving access to primary care physician data; and improving evaluation capacity at FQHCs. The group agreed that the city-county joint LPHSA is a good step towards better collaboration.

Model Standard 9.1, Evaluation of Population-Based Health Services, explores whether population-based services are being adequately evaluated by the LPHS, community feedback is sought, and gaps in service provision have been identified. The participants scored the Performance Measures from minimal to high moderate, resulting in a composite Model Standard of low moderate.

The participants reported that population-based health services in the LPHS are evaluated sporadically; the frequency varies between different programs and services. Assessments, such as those produced by the Regional Health Commission, provide some measures of quality and comprehensiveness. The *Understanding Our Needs* report is completed every two years and helps identify gaps in the provision of services. Hospitals and insurance plans frequently evaluate population-based services internally, however, much of the data are not publicly accessible. Some of the departments within the health departments (e.g. environmental health, communicable disease) administer satisfaction surveys or conduct focus groups to gauge

community satisfaction. Participants reported that they are likely to hear complaints from the public (e.g. email or phone call) when public health services are not satisfactory. LPHS organizations are able to draw on disease incidence and nationally representative data as measure of effectiveness. The evaluation data are used for developing strategic plans but are not revisited with enough frequency (e.g. quarterly basis). Overall, the group agreed that evaluation data are fragmented and need to be streamlined to assist in planning and resource allocation in the LPHS.

Model Standard 9.2, Evaluation of Personal Health Services, examines the extent to which health care providers are evaluating personal health care services. The participants scored the Performance Measures from low moderate to high significant, resulting in a composite Model Standard score of low significant.

Participants reported that many LPHS organizations use patient satisfaction surveys to determine client satisfaction. Respondents also noted there are national comparative surveys and reporting mechanisms that allow patients to research provider quality. The group agreed that the LPHS is still in a pay for service system but it is transitioning to a pay for performance system. The Gateway Pay for Performance system assesses quality of care and withholds payment to health care organizations if the care is not satisfactory. Many providers and insurers utilize “pay for performance” models including hospitals, Medicare/Medicaid, managed care, insurers, universities, and FQHCs. Respondents indicated several improvement opportunities, including: making the evaluation data cleaner and more useful; improving client evaluation instruments to make them more user-friendly; and improving evaluation capacity at FQHCs.

The group described numerous ways that information technology is used to ensure the quality of personal health services. Hospitals often make phone calls and send emails to patients to follow up after discharge. The group agreed that Electronic Health Records (EHRs) are a tremendous improvement from paper charts, allowing for more timely provider access and coordination internally and across systems. However, interoperability between EHR systems is still weak and affects the mobility of patients across providers. In addition, the respondents noted that some providers are not as far along in adopting EHRs due to cost, and therefore some vulnerable populations may be left out of these technological improvements. The group agreed that obtaining lab results for patients outside of your system is difficult and problematic. The respondents agreed that telehealth is still in its formative stage but is a long term opportunity to improve quality of personal health services. Participants reported that there is an emerging statewide communication system, but no regional health information organization. The Prescription Drug Monitoring Program (PDMP) is currently in 19 counties (not statewide).

The evaluation results are used by individual organizations in planning, and there is some collaboration across the Missouri Hospital Association, Missouri Primary Care Association, Missouri Foundation for Health, and the Integrated Health Network to share evaluation data. The group agreed that sharing more evaluation results across the LPHS would be beneficial for

informing plans. All LPHS organizations are held to the standards of one or more accrediting bodies.

Model Standard 9.3, Evaluation of the Local Public Health System, explores LPHS performance in evaluating its effectiveness as a system. The participants scored the Performance Measures from minimal to high significant, resulting in a composite Model Standard score of high moderate.

The group noted that this event marks the first joint city-county LPHSA. The city health department had not previously conducted an LPHSA, while the county health department conducted an LPHSA in 2013. The participants remarked that the level of collaboration between the city and county has steadily increased over the years and that this is a strength for the LPHS. The group noted that nursing homes, urgent care centers, Information Technology (IT) stakeholders (e.g. Epic Systems), and the Department of Veterans' affairs should be involved in the LPHSA, but they were unsure if these stakeholders had been invited to this event. There is additional work to be done to bring everyone to the table.

Respondents noted that communication could be improved between organizations, and that LPHS organizations desire to collaborate, but need take more steps to move from the loose to the tight end of the collaboration spectrum.[12] The group discussed barriers to collaboration, including policy and structural impediments in reimbursement, and funding organizations not present at the table or not collaborating. The LPHS has many duplicative efforts and some organizations (e.g. FQHCs) are over-taxed because they are expected to send representatives to many different groups that are working on similar issues. The group agreed that a long-term improvement is to reduce meeting repetition and overlap.

The participants indicated that the LPHSA results are used to improve the LPHS. The results drive decision making for public health, though they are less directly influential for community organizations and hospitals.

[12] The Collaboration Spectrum is a way to characterize relationships between organizations, from competition (loose) to integration (tight). See "Turf, trust, and the Collaboration Spectrum" from the Collective Impact Forum.

EPHS 9 Health Equity Measures

EPHS 9 Health Equity Measures			
These questions explore delivery of the 10 EPHS to historically marginalized communities and whether the LPHS monitors the delivery to ensure equitable distribution. At what level does the LPHS…			
9A	Identify community organizations or entities that contribute to the delivery of the Essential Public Health Services to historically marginalized communities?		63
9B	Monitor the delivery of the Essential Public Health Services to ensure that they are equitably distributed?		13
HE 9	Equitable Delivery of the EPHS	MODERATE	38

The participants scored Health Equity Measures 9A and 9B from minimal to significant, resulting in a composite Health Equity score of moderate. The participants reported that the LPHS is good at identifying organizations that contribute to the delivery of the 10 EPHSs to historically marginalized communities, though they noted that these organizations are not always at the decision-making table because of lack of trust and systemic racism. Respondents indicated that the LPHS does minimal work to monitor the delivery of the 10 EPHSs to ensure they are equitably distributed; however, many organizations have started this work (for example, increasing training in trauma-informed care).

EPHS 9 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• Organizations in the LPHS conduct focus groups for community feedback.
• Gateway Pay for Performance system assesses quality of care and withholds payment to health care organizations if the care is not satisfactory.
• The Prescription Drug Monitoring Program (PDMP) is currently in 19 counties.
• Electronic Health Records (EHRs) are a tremendous improvement from paper charts, allowing for more timely provider access and coordination internally and across systems.

Weaknesses
• A great deal of data are available but not all of it is accessible (especially data from the private sector).
• The LPHS does not have a regional health information organization.
• The statewide communication system is not widely adopted.
• Evaluation data sources are not clean.

Short-Term Opportunities
• Improve client evaluation instruments to make them more user-friendly.

Long-Term Opportunities
• Develop a critical access Healthcare Support Organizations (HSOs) for sharing primary care physician health data.
• Expand telehealth.
• Include funding agencies in future meetings.
• Improve evaluation capacity at FQHCs.

Essential Public Health Service 10: Research for New Insights and Innovative Solutions to Health Problems

To assess performance for Essential Public Health Service 10, participants were asked to address the key question:

Are we discovering and using new ways to get the job done?

Researching for new insights and innovative solutions to health problems encompasses the following:

- Full continuum of innovation, ranging from practical field-based efforts to fostering change in public health practice to more academic efforts to encourage new directions in scientific research.
- Continuous linkage with institutions of higher learning and research.
- Internal capacity to mount timely epidemiologic and economic analyses and conduct health services research.

EPHS 10 Group Composition

Partners who gathered to discuss the performance of the local public health system in research for new insights and innovation solutions to health problems included:

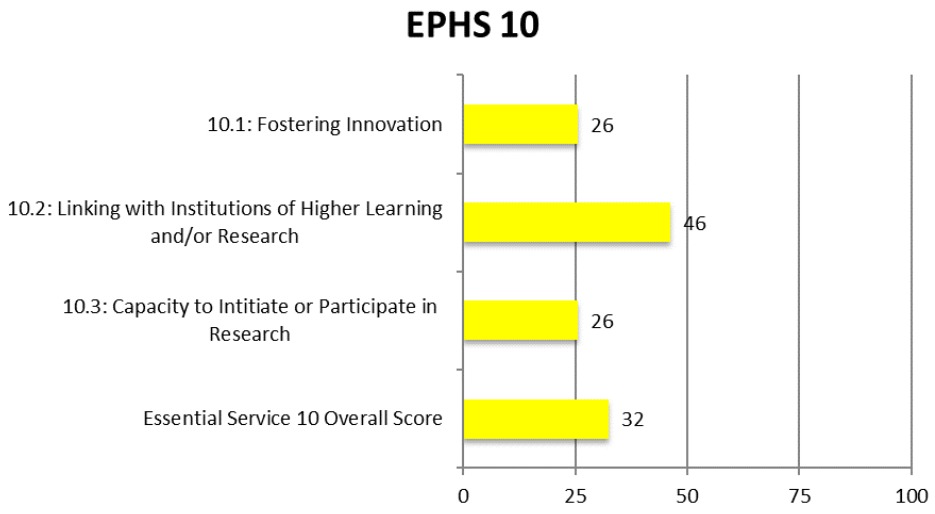
#	Organization Type
1	Health officer/public health director
1	Health service providers
1	Healthcare systems
1	Substance abuse or mental health organizations
3	The local health department or other governmental public health agency
5	Universities, colleges, and academic institutions

EPHS 10 Model Standard Scores

EPHS 10. Research for New Insights and Innovative Solutions to Health Problems			
LPHS organizations try new and creative ways to improve public health practice. In both academic and practice settings, such as universities and local health departments, new approaches are studied to see how well they work.			
10.1.1	Provide staff with the time and resources to pilot test or conduct studies to test new solutions to public health problems and see how well they actually work		13
10.1.2	Suggest ideas about what currently needs to be studied in public health to organizations that conduct research		38
10.1.3	Keep up with information from other agencies and organizations at the local, state, and national levels about current best practices in public health		38
10.1.4	Encourage community participation in research, including deciding what will be studied, conducting research, and sharing results		13
10.1	Fostering Innovation	MODERATE	26
The LPHS establishes relationships with colleges, universities, and other research organizations. The LPHS is strengthened by ongoing communication between academic institutions and LPHS organizations. They freely share information and best practices and set up formal or informal arrangements to work together. The LPHS connects with other research organizations, such as federal and state agencies, associations, private research organizations, and research departments or divisions of business firms. The LPHS does community-based participatory research that includes community members and those organizations representing community members as full partners from selection of the topic of study, to design, to sharing of findings. The LPHS works with one or more colleges, universities, or other research organizations to co-sponsor continuing education programs.			
10.2.1	Develop relationships with colleges, universities, or other research organizations, with a free flow of information, to create formal and informal arrangements to work together		63
10.2.2	Partner with colleges, universities, or other research organizations to conduct public health research, including community-based participatory research		38
10.2.3	Encourage colleges, universities, and other research organizations to work together with LPHS organizations to develop projects, including field training and continuing education		38
10.2	Linking with Institutions of Higher Learning and/or Research	MODERATE	46
The LPHS takes part in research to help improve the performance of the LPHS. This research includes examining how well LPHS organizations provide the 10 Essential Public Health Services in the community (public health systems and services research) and studying what influences healthcare quality and service delivery in the community (health services research). The LPHS has access to researchers with the knowledge and skills to design and conduct health-related studies, supports their work with funding and data systems, and provides ways to share findings. Research capacity includes access to libraries and information technology, the ability to analyze complex data, and ways to share research findings with the community and use them to improve public health practice.			
10.3.1	Collaborate with researchers who offer the knowledge and skills to design and conduct health-related studies		38
10.3.2	Support research with the necessary infrastructure and resources, including facilities, equipment, databases, information technology, funding, and other resources		13
10.3.3	Share findings with public health colleagues and the community broadly, through journals, Web sites, community meetings, etc.		38
10.3.4	Evaluate public health systems research efforts throughout all stages of work from planning to effect on local public health practice		13
10.3	Capacity to Initiate or Participate in Research	MODERATE	26

EPHS 10 Discussion Summary

EPHS 10 discusses LPHS performance in research and innovation. Overall performance for EPHS 10 was scored **moderate** in St. Louis and ranked seventh out of the 10 EPHSs. The three Model Standards for EPHS 10 were scored from low moderate to high moderate.



The LPHS has strong community partnerships between research and practice; these partnerships should strive to engage the community more broadly. Research entities need to include more authentic community voice in decision-making. There are many research proposals, but the LPHS needs to find ways to prioritize community needs. The LPHS also has innovative programs and these have to be elevated to a more prominent position. Agencies lack opportunities to engage agencies and foster innovation because staff are busy doing daily work responsibilities. The group identified several areas of opportunity, including promoting public health infrastructure to the business and innovation community (potentially through the Cortex Innovation Community); developing joint publications between academia and public health practice; and creating a community resources dashboard to make research findings centralized and publicly accessible.

Model Standard 10.1, Fostering Innovation, explores LPHS performance in finding new ways to improve public health practice. The participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of low moderate.

LPHS organizations have proposed one or more public health issues for inclusion in a research organization's agenda. Integrated Health Network has an academic partnership, and the county health department has partnered with St. Louis University on environmental health issues and tobacco-related issues. The group indicated that there is no systematic way for LPHS organizations to share results or lessons learned, though national conferences can help facilitate this. The participants said that networking is crucial to finding new solutions to health problems; for example, Behavioral Health Response encourages staff to look outside of behavioral health to support initiatives beyond their scope. Lack of funding, restricted funding

uses (e.g. grants do not want research activities), and lack of human capital are barriers to conducting pilot tests or studies. Participants suggested using students to execute pilot projects.

LPHS organizations identify and stay current with best practices through academic partners, professional associations, and emails from leadership. The county health department indicated that the National Association of County and City Health Officials (NACCHO) has been an invaluable tool for establishing best practices. Some participants noted it can be difficult to keep up with the volume of best practice information that is circulated. The participants reported there are pockets of innovations in the LPHS but there is not system-wide capacity for evaluation, documenting success, and building an evidence base. The participants said that a representative from Cortex Innovation Community, a specialist in health technology, should be present at the LPHSA.

Model Standard 10.2, Linkage with Institutions of Higher Learning and Research, examines the extent to which the LPHS engages in relationships with universities and other research institutions to collaborate and share data and best practices. The participants scored the Performance Measures from moderate to significant, resulting in a composite Model Standard score of high moderate. Participants agreed that LPHS organizations have plenty of relationships with institutions of higher learning, and relationships are developed regardless of funding availability or resource constraints. Relationships encompass both informal and formal networks.

Model Standard 10.3, Capacity to Initiate or Participate in Research, discusses how the LPHS partners with researchers to conduct health related studies, supports research with necessary infrastructure and resources, shares research findings, and evaluates research efforts. The participants scored the Performance Measures from minimal to moderate, resulting in a composite Model Standard score of low moderate.

The LPHS shares findings from its research through annual reports and community needs assessment reports. There is no central repository for research findings. Participants would like to see joint publication records between academia and public health institutions. The group confirmed that virtually all types of research expertise and experience is available to the LPHS. Resources available to facilitate research include qualified staff (human capital) and data (e.g. Missouri Information for Community Assessment (MICA)). The lack of financial resources makes it difficult to facilitate research in terms of flexibility. The respondents indicated that LPHS organizations evaluate their research activities individually. The group agreed that the LPHS could do a better job of sharing findings with the broader community.

EPHS 10 Health Equity Measures

EPHS 10 Health Equity Measures			
These questions examine how well the LPHS explores root causes of health inequity, shares information and strategies around health equity, uses Health Equity Impact Assessments, and encourages community participation in health equity research. At what level does the LPHS…			
10C	Use Health Equity Impact Assessments to analyze the potential impact of local policies, practices, and policy changes on historically marginalized communities?		0
HE 10	Health Equity Research	NO ACTIVITY	0

The participants unanimously scored Health Equity Measure 10C at “no activity,” indicating that the LPHS does not use Health Impact Assessments to analyze the potential impact of local policies, practices, and policy changes on historically marginalized communities.

EPHS 10 Strengths, Weaknesses, and Opportunities

Participants identified strengths and weaknesses that emerged as themes throughout the discussion of the EPHS and identified potential short- and long-term opportunities for action throughout the LPHS. A summary is provided below.

Strengths
• The LPHS has excellent community leaders and partners that do research and could help engage others in innovation and research.
• The Community Referral Coordinators Program and its collective impact counterpart, the Transitions of Care Task Force, is an evaluated, successful evidence-based innovation model.
• The Network Community Academic Partnership (NCAP) is a table where research proposals can be vetted by practice organizations.

Weaknesses
• Agencies do not foster innovation because staff are busy doing daily work responsibilities.
• Change in practice as a result of guidelines/best practices updates are difficult to quantify.
• Overabundance of research proposals; the LPHS needs to continue to optimize our community's research needs.
• Research entities need to engage authentic community voice and decision-making in research projects.

Short-Term Opportunities
• Promote public health to the business and innovation community though Cortex Innovation Community.
• Partner with universities to get help on pilot projects and obtain additional resources to gather information about efficacy.
• Create joint publications with academia and public health practice.

Long-Term Opportunities
• Develop an investigative work culture that allows for continuous piloting and finding new solutions (e.g. Google, Apple).
• While there are opportunities to work collaboratively, these are not always known by all parties. The LPHS needs to invest in sharing methods.
• Develop a community research dashboard to compile the findings of our research community.

Appendices

Appendix 1: List of Participating Organizations

Organizations
Affinia Healthcare
American Diabetes Association
American Heart Association
Barnes-Jewish Hospital
Behavioral Health Network of Greater St. Louis
Behavioral Health Response
Beyond Housing
Bi-State Development Research Institute
BJC HealthCare
Casa de Salud
City of St. Louis Department of Health
City of St. Louis Joint Board of Health and Hospitals
City of St. Louis Office on the Disabled
DOORWAYS
FamilyForward
Gateway Region YMCA
GirlTrek
Great Rivers Greenway
Health Literacy Media
International Institute of St. Louis
Mercy
Metropolitan Congregation United
Metropolitan St. Louis Sewer District
Missouri Department of Health & Senior Services
Missouri Foundation for Health
Missouri Hospital Association
National Council on Alcohol and Drug Abuse - St. Louis Area
Office of St. Louis County Executive
Operation Food Search
People's Community Action Corporation
Rupert Brooks Company, LLC
Saint Louis City EMA/DPS
Saint Louis County Department of Public Health
Saint Louis Public Schools
Saint Louis University College for Public Health and Social Justice

SSM Health
SSM Health - St. Mary's Hospital
SSM Health - SLUH
St. Anthony's Medical Center
St. Charles County Department of Public Health
St. Louis Area Agency on Aging
St. Louis Children's Hospital
St. Louis Integrated Health Network
St. Louis Mental Health Board
St. Louis Promise Zone
St. Louis Regional Health Commission
St. Luke's Hospital
System of Care St. Louis Region
Teen Pregnancy & Prevention Partnership
The Oasis Institute
Trailnet
U.S. Green Building Council
University of Missouri
University of Missouri Extension
VA St. Louis Healthcare System
Washington University in St. Louis
Washington University School of Medicine

Appendix 2: LPHSA Supplement – System Contributions to Assuring Health Equity

Local Public Health System Assessment continued

Health Equity

System Contributions to Assuring Health Equity

When completing the Local Public Health System (LPHS) Assessment using the National Public Health Performance Standards (NPHPS) Instrument, your group can reframe questions about essential service delivery to identify how well the LPHS acknowledges and addresses health inequities. The following questions provide examples of how the instrument can be revised to focus on health equity.

Essential Public Health Service 1: Monitoring Health Status

At what level does the LPHS…

1A • Conduct a community health assessment that includes indicators intended to monitor differences in health and wellness across populations, according to race, ethnicity, age, income, immigration status, sexual identify, education, gender, and neighborhood?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

1B • Monitor social and economic conditions that affect health in the community, as well as institutional practices and policies that generate those conditions?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 2: Diagnosing and Investigating Health Problems

At what level does the LPHS…

2A • Operate or participate in surveillance systems designed to monitor health inequities and identify the social determinants of health inequities specific to the jurisdiction and across several of its communities?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

2B • Collect reportable disease information from community health professionals about health inequities?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

2C • Have the necessary resources to collect information about specific health inequities and investigate the social determinants of health inequities?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 3: Inform, Educate, and Empower People about Health Issues

At what level does the LPHS…

3A • Provide the general public, policymakers, and public and private stakeholders with information about health inequities and the impact of government and private sector decision-making on historically marginalized communities?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

3B • Provide information about community health status (e.g., heart disease rates, cancer rates, and environmental risks) and community health needs in the context of health equity and social justice?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Local Public Health System Assessment continued

System Contributions to Assuring Health Equity

3C • Plan and conduct health promotion and education campaigns that are appropriate to culture, age, language, gender, socioeconomic status, race/ethnicity, and sexual orientation?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

3D • Plan campaigns that identify the structural determinants of health inequities and the social determinants of health inequities (rather than focusing solely on individuals' health behaviors and decision-making)?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 4: Mobilizing Community Partnerships to Identify and Solve Health Problems

At what level does the LPHS…

4A • Have a process for identifying and engaging key constituents and participants that recognizes and supports differences among groups?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

4B • Provide institutional means for community-based organizations and individual community members to participate fully in decision-making?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

4C • Provide community members with access to community health data?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 5: Developing Policies and Plans that Support Individual Community Health Efforts

At what level does the LPHS…

5A • Ensure that community-based organizations and individual community members have a substantive role in deciding what policies, procedures, rules, and practices govern community heath efforts?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 6: Enforce Laws and Regulations that Protect Health and Ensure Safety

At what level does the LPHS…

6A • Identify local public health issues that have a disproportionate impact on historically marginalized communities (that are not adequately addressed through existing laws, regulations, and ordinances)?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Local Public Health System Assessment continued

Health Equity

System Contributions to Assuring Health Equity

Essential Public Health Service 7: Link People to Needed Personal Health Services

At what level does the LPHS…

7A • Identify any populations that may experience barriers to personal health services based on factors such as on age, education level, income, language barriers, race or ethnicity, disability, mental illness, access to insurance, sexual orientation and gender identity, and additional identities outlined in Model Standard 7.1?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

7B • Identify the means through which historical social injustices specific to the jurisdiction (e.g., the inequitable distribution health services and transportation resources) may influence access to personal health services?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

7C • Work to influence laws, policies, and practices that maintain inequitable distributions of resources that may influence access to personal health services?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Essential Public Health Service 8: Assure a Competent and Personal Health Care Workforce

At what level does the LPHS…

8A • Conduct assessments related to developing staff capacity and improving organizational functioning to support health equity initiatives?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

8B • Identify staff perspectives on the facilitators and barriers to addressing health equity initiatives?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

8C • Include staff members that are often excluded from planning and organizational decision-making processes in workforce assessments?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

8D • Recruit and train staff members from multidisciplinary backgrounds that are committed to achieving health equity?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

8E • Recruit and train staff members that reflect the communities they serve?

No Activity ☐ Minimal ☐ Moderate ☐ Significant ☐ Optimal ☐

Local Public Health System Assessment continued

Health Equity

System Contributions to Assuring Health Equity

Essential Public Health Service 9: Evaluate the Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services

At what level does the LPHS…

9A • Identify community organizations or entities that contribute to the delivery of the Essential Public Health Services to historically marginalized communities?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

9B • Monitor the delivery of the Essential Public Health Services to ensure that they are equitably distributed?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

Essential Public Health Service 10: Research for New Insights and Innovative Solutions to Health Problems

At what level does the LPHS…

10A • Encourage staff, research organizations, and community members to explore the root causes of health inequity, including solutions based on research identifying the health impact of structural racism, gender and class inequity, social exclusion, and power differentials?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

10B • Share information and strategize with other organizations invested in eliminating health inequity?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

10C • Use Health Equity Impact Assessments to analyze the potential impact of local policies, practices, and policy changes on historically marginalized communities?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

10D • Facilitate substantive community participation in the development and implementation of research about the relationships between structural social injustices and health status?

No Activity	Minimal	Moderate	Significant	Optimal
☐	☐	☐	☐	☐

CHIP PRIORITY PLANNING LAUNCH
Access to Care & Social Services

1.How is your organization/coalition/institution currently addressing this issue? Which populations are you working with?

Physical Access
- East-West Gateway Regional Transportation Planning
- One STL transit-oriented development
- STLDOH safety net commuinity health centers, 3 locations, system-wide access to health
- IHN community referral coordinator (CRC)
- Community Action Agency
- BHN Opioid assistance in emergency department

Affordability
- STLDOH system wide access
- STLDOH sliding scale fee
- Hospitals/STLDOH/Regional Health Commissions
- MCH Access to care funding (resource)

Acceptability
- STLDOH System wide access

Awareness
- United Way
- STLDOH sytem wide access
- Community Action Agency
- Regional Health Commission Access to Care Data [Book Workgroup]
- Social workers within systems

2.What gaps need filled in the St. Louis region? What strategies are needed to address the gaps? If you have a role in fulfilling this strategy, please indicate your name and organization.

Funding sustainability
Policymakers understanding needs
Workforce development
Stigma/trauma issues around obtaining care
Strengthening of our referral/linkage systsem
Quality of services in high needs areas, access to specialties [providers]
Need for primary care medical homes
Integrating care

3.How can work in this area help improve some of the local public health system weaknesses related to data, policy and community engagement?

Data [is] ok
Alignment and communication

Leveraging resources across organizations

Policy

needs work
make better ROI cases to show value
look at organizational policies
coordinate on policy

Community Engagement

Give people option to give input

4.What is the role of the business community or other non-traditional public health sectors in this work? What is our ask to engage them?

Forward through Ferguson
For the Sake of All
Busness community - engage with ROI

Police Department

Utilize/engage them as they are often first point of care

Planning and community development agencies, departments
Data-sharing across the board
Transportation proximity does not = [equal] access

CHIP PRIORITY PLANNING LAUNCH
Violence Prevention

1.How is your organization/coalition/institution currently addressing this issue? Which populations are you working with?

People's Community Action Corporation
- Needs assessment, crime, safety, recreation, vacancy

CAASTL (Community Action Agency of St. Louis) needs assessment
- Year 1 Needs assessment
- Year 2 Strategic plan
- Year 3 Incorporate into CPs [community partners]

STLDOH
- Resiliency
- Trauma-Informed
- Neighborhood resource fairs
- PIER neighborhoods
- Booklets with resources
- BJC behavioral specialists (train the trainer)

Church is key
Bridges to Care, Rose Beavers, Mental health 1st aid trauma training
Alive & Well
NIT (NSOs) law enforcement and other agencies
DOHWCAH [New Orleans
YVPP [Youth Violence Prevention Partnership]
Regional Violence Prevention Commission
Green Building Council
- Built environment - in order to engage and take advantage of services needed to feel safe

2.What gaps need filled in the St. Louis region? What strategies are needed to address the gaps? If you have a role in fulfilling this strategy, please indicate your name and organization.

Develop expertise around decision making
The REAL simulation (PCAC) offers to schools: Impact on future by today's decision
CharacterPlus including trauma and decision making
Addressing SDOH - if not presented with good choices you make bad choices
- Racism
- Poverty
- Fear

Research grant intersection of racial discrimination and violence
Equity in terms of green spaces, parks
Continuum of jobs, education, training, transportation, barriers of crime record, drug screen
Mentality shift? Traditional strategies not effective -- like jobs?

3.How can work in this area help improve some of the local public health system weaknesses related to data, policy and community engagement?

Outdated strategy
How [to] get back to what [we're] doing to change the way of thinking
Reorganize way of thinking; have hope in face of loss and engage for better tomorrow
Need to know what offering; value added
How to get data on violence as acceptable strategy; given up on interpersonal and community relationships
Messages everywhere (ubiquitous) around drug use - not sales and gang control

4.What is the role of the business community or other non-traditional public health sectors in this work? What is our ask to engage them?

Business cares about having competent, trained, sober workforce
Chamber of Commerce - economic case for why we need fewer guns on streets
CDC and legislature encourage to allow collection of gun violence data
Guns are big issue

CHIP PRIORITY PLANNING LAUNCH
Maternal, Child, Family, and Sexual Health

1.How is your organization/coalition/institution currently addressing this issue? Which populations are you working with?

Flourish
- Infant Mortality
- Prental Care
- Infant Health
- Transportation
- Behavioral Health
- Health Communication/Navigation
- Housing

STLCODPH
- Primary Care
- Preventive care
- Data
- Health communication/education
  - has segmented population to tailor communication
- Behavioral Health through sexual health clinic
- Sexual health resource kits for community
- Sex education in schools, with STIRR Coalition
- Updating lead testing guidelines
- Standards of care guidelines for STI (CDC Recommendations)

Mercy
- Centerng
- Primary/Specialty Care

STLCH
- Primary/Specialty Care
- Raising STL
- Community Outreach

2.What gaps need filled in the St. Louis region? What strategies are needed to address the gaps? If you have a role in fulfilling this strategy, please indicate your name and organization.

Understanding home visiting landscape
Sustainable funding
Shared data and program evaluation
- i.e., Promise 1000 in Kansas City

Inappropriate use of medical care i.e., ER
- Lack of ~~knowledge~~ effective promotion about resources

Lack of continuity of health coverage for women before/after pregnancy
Lack of comprehensive sexual health education
Lack of a coordinated school health approach

CHIP PRIORITY PLANNING LAUNCH
Maternal, Child, Family, and Sexual Health

3.How can work in this area help improve some of the local public health system weaknesses related to data, policy and community engagement?

Lack of complete demographic data (hospital, health departments) needed to disaggregate
School nurses are an avenue to community engagement but need more resources (e.g., education)
Need faith community engaged
Need champions to advocate comprehensive sexual health education
Town Hall Meetings will be hosted at DPH and champions may come out of this format - use the Alive and Well [ambassadors] model
Media partners
Build PR capacity for Local Public Health System

4.What is the role of the business community or other non-traditional public health sectors in this work? What is our ask to engage them?

Media as partners - not just covering story but active participants to help frame public health issues for the
Elected officials as active participants so they can suggest and help make policy change, educate electeds about regional plan

CHIP PRIORITY PLANNING LAUNCH
Chronic Disease Prevention and Management

1.How is your organization/coalition/institution currently addressing this issue? Which populations are you working with?

YMCA - Emerson - Healthy Schools Healthy Children
Mothers and female caregivers (healthy eating, physical activity, stress management)
St. Luke's - Community Outreach
Screening services - worksites
Population: west county - want to expand
SLU - Health Management/Policy/Public health
Vulnerable families
HEAL (Healthy Eating Active Living)
physical activity, healthy youth, access to care
Footprint of Promise Zone
Green City Coalition
Inclusive green space, land use, resident engagement
North City
East-West Gateway Council of Governments
Transportation, pedestrians and cycling, healthy living, complete streets technical assistance
Regional population
One STL
7 targets: decrease low food access, transit-oriented development, food access:poverty
Regional population
AHA (American Heart Association)
CVD (cardiovascular disease) prevention
SDOH
Policy
Environmental Change
African American population interventions
Affinia
5 centers - Chronic Disease
Community partnerships
Focus on hypertension (grant), food access
Preventive primary health care
STLCODPH
Chronic Disease - collaborate, convene
HLC (Healthy Living Coalition) - access, worksite, healthy youth
Links2Health
Screenings at MetroLink
Linkage to other services

2.What gaps need filled in the St. Louis region? What strategies are needed to address the gaps? If you have a role in fulfilling this strategy, please indicate your name and organization.

Competing priorities - hierarchy of need

Access to safe places to play
The whole region approach is not realistic - need a targeted population
  Zip code prioritization to converge resources of many organizations (5 zip codes?)
  There are areas prime for this kind of focus
    Step 1: identify zip codes
    Step 2: Identify key organizations to lead
      Examples: The Promise Zone health and wellness subcommittee, ReCAST
Examples: The Promise Zone health and wellness subcommittee, ReCAST
Safety - no one is addressing comprehensively yet
  include M.O.R.E. - Missouri Organizing for Reform and Empowerment, UMSL Extension
Need a linkage to organizations working on chronic disease management and specialty care

3.How can work in this area help improve some of the local public health system weaknesses related to data, policy and community engagement?

Data
  Data sharing with expert organizations, SDOH data sharing event --> targeted--> zip code areas
  Academic partners to paint a broader picture

  Convene a group - including communication, including collaboration (a group started with the Promise Zone)
  SLU Urban Planning ahs GIS data
Policy
  identify policy parnters
  Identify policy makers to help with policy development
  Coalition can advocate versus educate on policy
  Inventory or comprehensive policy assessment
  Advocate for policy other than health
  Structure to engage organizations
Community Engagement
  Develop a community advisory baord or resident champions for chronic disease prevention and care
  understand what other resident engagement strategies are out there - don't want to duplicate or overburden resident groups

4.What is the role of the business community or other non-traditional public health sectors in this work? What is our ask to engage them?

Food retailers
Alternative food retailers - community-informed - local food system - social responsibility
Corporations to invest in social issues
Payer/insurance industry - make the case just because it is right is not enough
Corporations to invest in training of workforce

CHIP PRIORITY PLANNING LAUNCH
Behavioral Health

1.How is your organization/coalition/institution currently addressing this issue? Which populations are you working with?

Hospitals-opiate initiative
  Recovery coaches with ERs; high engagement, immediate referrals
Hospitals and BHN
  ER use for non-emergent care, but really a behavioral health need
  ERE - emergency room enhancement
Bridges peer and recovery
  Moving to prevention via faith communities, behavioral health first aid
Opioid Summit Calls to Action
  1: Access to care for providers and participants
  2: Policy areas - legislative day for sustainable funding - NCADA??
  PMPD [PDMP?] at local levels
System of Care
  Children's behavioral health - ensuring information to providers
UM-Columbia
  $3M/3 years from MFH with mild to moderate behavioral health needs
  MCPAP
  ECHO - telehelp project
BJC Hospital Departments - social support to the community
SSM
  WISH Clinic - women with opioid issues - patient safety bundles
  post-partum-help community-based providers
MCU School to Prison Pipeline
  Training/skills for school faculty/administration
Alive and Well STL
WUSTL/WUSOM
  training social work integrated behavioral health, primary care and behavioral healthcare
  WUSTL/Institute of Public Health
  Discussion of improvements with BHN
    What research questions are relevant to the community

2.What gaps need filled in the St. Louis region? What strategies are needed to address the gaps? If you have a role in fulfilling this strategy, please indicate your name and organization.

CHIP Inventory on behavioral health
a way to get people into treatment
Virtual care strategies; clinical psychiatric pharmacists
Inventory of types of providers and what they do
State policy people at the table
How do we measure what happens with behavioral health/substance abuse?
Not enough groups to engage communities to lead how to transform the system
What visual repository could be developed to show what is there so we can see the gap areas?

Mapping of resources/systems that are available - is what is done quality? Similar to the heat map on physical activity published in the Riverfront Times
Social support to the community from BJC

3.How can work in this area help improve some of the local public health system weaknesses related to data, policy and community engagement?

Collaboration in practice document
Expanding the PDMP
Ask funders to request mapping as a part of BH initiatives
Interrelationship with other healht concerns (chronic disease, exercise)
Early childhood screening and treatment
Identifying how we support success
Reporting data in consistent ways

1: Funders require reporting data and successes - did those most in need have better outcomes
2: stop allowing people to do the same thing - support collaborative efforts
Motivate and incentivize collaborative efforts

4.What is the role of the business community or other non-traditional public health sectors in this work? What is our ask to engage them?

Job opportunities - health programs available by employers, insurance, physical exercise, EAPs
Use energy around opioids to stretch to other BH needs
Elevate realities in the data to the business community
How social determinants play out in the reported data where the greatest needs exist
Psychologically healthy workplace - ask businesses to focus on one of these
Elevate information about employers who are using these techniques
CHW-navigators - pay these people value-based payment system - compensate to build equitable systems
Livable wages - ask the businesses to pay