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Primary-care services available to undergraduate populations at large public universities in the SEC-East

A Senior Honors Project

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Introduction:

Undergraduate students enrolled in public supported universities are provided primary health care through a Student Health Service. Services offered range from diagnostic clinics to health education. The majority of undergraduate populations are young adults aged 18-25 (ACHA 2002). At this age and with students vacating the home to reside in campus residence halls, students spend their first year as an independent on college campuses. With this newfound autonomy there is an increase in unhealthy behaviors. Therefore, the importance of access to health care, including health education, is partially served by a Student Health Service.

As a senior enrolled at the University of Tennessee in Knoxville having spent four years receiving health care from the Student Health Service, my interest in primary health care available to undergraduate populations at large, public universities resulted in this research. As the capstone of my Chancellor's Honors Program degree in the College of Arts and Sciences, this Senior Honors Project has been an interdisciplinary study comparing undergraduate health care services at the five South-Eastern Conference Eastern Division (SEC-East) universities¹. The goal of the comparison was to offer insight into available services and the potential lack of health services. A profile was generated to compare and contrast primary care services. The intention of presenting the findings was to reveal areas in need of improvement and to promote awareness for the necessity of health services for a vulnerable population whose health care practices will impact personal health for a lifetime. Likewise, my enrollment in medical school next year means the results of this research have affected my perception of health care and future career.

¹ Vanderbilt University, a member of the SEC-East, is excluded from the study because it is a private institution.

South-Eastern Conference, Eastern Division Public Universities

The following is an identification of the universities investigated and the corresponding undergraduate populations²:

- University of Florida in Gainesville (UF): Student Health Care Center (undergraduate pop. 35,189)
- University of Georgia in Athens (UG): The University Health Center (undergraduate pop. 25,335)
- University of Kentucky in Lexington (UK): University Health Service (undergraduate pop. 18, 770)
- University of South Carolina in Columbia (USC): Student Health Services (undergraduate pop. 18,827)
- University of Tennessee in Knoxville (UT): Student Health Service (undergraduate pop.21,369)

Methodology:

In this research, data concerning a university' Student Health Service was gathered through annual reports, the school's student health service website, personal and phone interviews, and by other printed materials provided by the school. A literary review was conducted concerning student health. The American College Health Association (ACHA) published *Healthy Campus 2010: Making it Happen (HC2010)* as a companion to the U.S. Department of Health and Human Sciences' (HHS) *Healthy People 2010* document. This document provides nationwide objectives concerning areas of health care improvement for Americans. *HC2010* focuses on campus populations; therefore, these areas were used to address health services. The ACHA completed a *National College Health Assessment (NCHA)* of around 500,000 students' health status. The *NCHA* was used to show areas of improvement in student health.

Findings:

The services offered at the five universities are cited in *Table 1: Comparison of SEC-East Student Health Services*. The thirteen major primary care services are those commonly implemented at a

² undergraduate populations' data as per USNews' University 's profile.

Student Health Care Center. For *Table 1*, the summary of services has been created with information from the Student Health Center's website and the Student Health Administrator or representative.

Discussion:

Using the information concerning each Student Health Center's available services, insight into those needing improvement and those commonly available helped to create *Table 1*. It is important to understand that the quality of the service cannot be determined through the resources used to gather this information; rather, *Table 1* shows what services exist and are available to the students. However, a service's existence does not necessarily mean the service is adequate to meet the needs of the student. When data suggests a service is not addressing needs or national objectives, the service is considered in need of improvement. Whenever a service does not exist at all or only at some universities, it was also labeled as needing improvement. Services needing improvement because they are limited to a few universities will now be discussed.

Limited Services

In 2007, the National Association of Community Health Centers (NACHC) reported that \$18 billion was wasted each year on unnecessary Emergency Room (ER) visits. These visits could have been redirected to a health center (National Association of Community Health Centers). After hours care can be provided through ERs; however, some health problems do not require immediate care which, instead, waste this costly resource. An on-call health professional can aid in reducing unnecessary ER visits. When a student is worried that he or she may need treatment, one can gain consultation from the on-call health professional. Equally, First-Responders services respond to contacts for medical help. By dispatching a team of trained health professionals, students' are evaluated at the location to decide the services required. These on-call services also aid other services on campus. For example, when a resident assistant encounters an intoxicated individual, he or she can contact the

health professional for advice on how to proceed. Likewise, this service can help prevent dangerous medical treatment plans conjured by a panicked student not willing to use an ER. Some mental health services offer phone access for crisis intervention. UG and UT do not provide an all call medical professional to answer questions after hours. UF and UK have on-call health professionals, while USC has a first-responders service. All the universities do provide after hours emergency care through ERs, and UG offers after hour crisis intervention. The on-call service operates through rotating the emergency phone among healthcare staff. This resource can reduce visits to local ERs, saving the students money and hospitals time.

Dermatological services carry the stigma of being insignificant. The American Cancer Society reports that skin cancer is the most diagnosed cancer in America. *HC2010's* objective 3-9 is concerned with reducing the amount of skin cancer risks. These preventative measures include using sunscreen, avoiding the sunlight, and wearing sun-protective clothing (ACHA 2002). A frequent source of radiation for college students is use of tanning services. Also, certain laboratory settings pose skin cancer risks. This exposure is indicative that students' risks of skin cancer are similar if not more likely to occur when compared to other populations. Dermatology services include mole screenings that detect cancer sooner, increasing the chances of a healthy life. UK, USC, and UT do not have dermatology services available. This does not mean some healthcare professionals cannot treat or refer students to a dermatologist; however, there is not a designated on-campus clinic for this service.

In the NCHA, the ACHA performed a study of college students' "Reported Sources and Believability of Health-Related Information". The top three sources of health-related information to a student were the parent, the internet, and friends. The Healthcare Center Medical Staff and the Health Educator were reported as the fourth and fifth sources. Considering the top three sources lack credibility and professional knowledge, the many health information rumors circulating among students is to be expected. This is especially evident from rumors transferred between friends. Oftentimes, this

health information can harm the student. Healthcare professionals should have a prevalent role in where a student attains medical information. Health promotion programs have unique opportunities on campuses due to a targeted demographic of adolescents and young adults experiencing similar issues. When asked “Which of the following health topics have you ever received information from your college or university?” the top responses were alcohol and other drug use prevention, sexual assault/relationship violence prevention, and physical activity/fitness. These three choices did not have more than 50% of students reporting that they received information. The last three were violence prevention, suicide prevention, and injury prevention (ACHA 2008). Educational strategies commonly utilized by health promotion services take the approach that students are lacking information on health issues. This strategy aims to increase the student’s knowledge of the issue in hopes of creating better behaviors. Research has shown that this approach is less effective when used alone. Instead, the results show that by taking an environmental management approach, student’s high risk behaviors decreased (Gebhart, Kaphingst and DeJong). Environmental management is successful in reducing unhealthy behavior because the unhealthy behavior is less assessable to the student. By removing the choice to participate in unhealthy behavior, students will avoid those health risks.

Another approach utilized by health promotion services is re-educating students on social norms. Students entering campuses have been misled by media created stereotypes of typical student behaviors. These behaviors are false, and through showing actual student norms there is less pressure on the student to participate in these unhealthy behaviors (Haines and Spear). Concerning alcohol use among students, the risks associated with alcohol consumption for adolescents are greater because the brain has not fully developed. Alcohol-related fatal car accidents and homicides are the most common among students (Schwartz). Alcohol also contributes to 97,000 student victims of sexual abuse (Hingson, Heeren and Zakocs 2005), 110,000 arrests, and 2.1 million drunk drivers (Hingson, Heeren and

Zakocs 2002). These figures indicate the ongoing need for education concerning alcohol and substance abuse for college students.

The universities all have health promotion services and coordinators of student wellness. When it comes to health education, there is a constant need for remodeling and re-evaluating techniques to educate students on healthy lifestyles. Research suggests more emphasis should be placed into educating students on healthy behaviors and norms, as opposed to information garnished to a specific unhealthy substance or act. If universities want to achieve the national health objectives, then their health education services must reach more students with more health topics (Brener and Gowda).

Sixty percent of surveyed student affairs officials claimed there has been an increase in demand for student mental health services (Levine and Cureton). Student Health Centers expect mental health treatment to increase in the near future. This service is necessary for students due to the stressors they experience from attending school, including classroom anxiety, leaving the home, and establishing roles in a new environment. A student's perceived stress can lower one's mental health (Bovier, Chamot and Perneger). In the *NCHA*, as response to the question "what affected your academic performance", 34% of those surveyed reported that stress was a factor. Stress was the highest reported answer, chosen more often than having the flu. Also, 94% of the students felt overwhelmed by what they had to do in the last academic year (ACHA 2008). Other reported mental health factors included lack of sleep, concerns for a friend or family member, depression, and anxiety disorders. Studies show a correlation between low mental health and lower grades, which affect attrition rates. Research indicates that 5% of students left school due to a mental illness. Following the rampage of a depressed student at Virginia Tech in 2007, there has been a concern for student mental health services to keep track of the released patients to ensure their health and safety (Shute). The rise in students requiring mental health services can partially be attributed to students being admitted to universities that, in the past, those students would not have qualified for admission. The hardship experienced by these students deteriorates their

mental health. Therefore, the necessity of mental health services on university campuses is vital in promoting the academic success of its students (ACHA 2008). All five universities in this study have mental health services including counseling, psychiatric consultation, and group therapies. However, UF and UG offer more specific services such as crisis intervention, while UG, UK, and UT offer outreach services. The staffing of psychiatrists is necessary to prescribe mental health medications, whereas psychologists provide non-prescription services. An expansion of all services is expected to meet the rising demand for mental healthcare. (Center for College Health and Safety)

The benefits of a Student Health Center operating a pharmacy on campus include easy access to pharmaceuticals and financial incentives for the university. Through having a pharmacy on campus, students can fill their prescriptions sooner, closer within campus residence, and occasionally cheaper. Universities can offer discounts and co-pays for the medication prescribed by the Student Health Service staff. On March 10 2009, the US Senate passed the “Affordable Birth Control Act” to return birth control pill prices from \$30 to \$50 a month to \$3 to \$5 a month which benefits students whom are fortunate to have access to a Student Health Service pharmacy (Go). This federal act is only available for college clinics and community health centers. Staffing pharmacists inform students in medication instructions, and also assist Student Health Service physicians with their questions. This communication between physician and pharmacist creates a better health care plan for the student. Considering that pharmacies are also a source of revenue for the student health center, operating one makes it a mutual benefit for the university and the student. The pharmacy’s revenue furthers services available and lowers student health fees. UT does not provide a pharmacy service for students, either through the health center or through a partnership with an off-campus service. This means student discounts are not possible. A pharmacy service is expected in the construction of a new Student Health Center in the near future; however, until then, no service has been offered.

When students vacate home to attend college, they also leave their primary-care providers. One such service, oral health, is often ignored due to the distance from the previous dentist and the steep fees. Students are absent from frequent oral health reminders about dental care from their dental clinic and family members. New dental services for the student are difficult to attain due to full patient rosters, resulting in waiting lists and added expenditures for the student. *HC2010* has a chapter concerning oral health with objectives concerning earlier detection of dental decay (21-2c), oral cancers (21-6), and increasing the proportion of students that receive annual oral healthcare services (21-10). Similarly, vision and hearing services are discussed by *HC2010* through reducing eye injury and hearing injury (28-8; 28-9; 28-16). UG offers daily dental services during regular operation of the Student Health Center. Neither dental services nor vision/hearing services are offered through any of the other Student Health Centers. Dentists and dental clinic equipment is expensive, but, considering the need for the service, it would be a worthy investment for the Student Health Service and the student.

Available Services

Those services needing improvement have been labeled as such due to evidence from examining the services available and from trends reported in the literature. Now those services that are common to all five universities will be discussed. These common services are suggested to be up to date with current healthcare needs. However, healthcare is dynamic; therefore, healthcare services need constant updating to offer the best care available. The ongoing success of these services will require modernizing to meet healthcare demands and advances.

In the chapter concerning immunization, *HC2010* seeks to prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases. These vaccine preventable diseases are: diphtheria, Hepatitis B and C, measles, mumps, polio, tetanus, rubella, varicella, meningococcal disease, and tuberculosis. Proof of many of these vaccinations is required prior to entering a university. If any discrepancies between received and required vaccinations exist, the Student Health Centers will

provide through the immunization clinic. Students live in large residence halls where the spread of infectious diseases can be rapid. Campus-wide, students with varying vaccination histories prove “fertile ground” for infectious disease (Kumar, Murray and Havlichek). Furthermore, *HC2010* is concerned about occupationally exposed workers (14-3g). Universities provide unique opportunities for students to partake in laboratory and animal research, many resulting in close contact to these vaccine preventable diseases. Proper hand washing is the best way to stop the transmission of disease, and health promotion departments are responsible for transmitting this knowledge to students (Centers for Disease Control and Prevention (CDC)). Allergy clinics are available; however, providing your own antigen is required in most facilities. With the increasingly poorer diets of students, allergies transpire that need treatment from a health professional. *HC2010* objective 14-15 concerns international travelers who receive recommended preventative services when traveling in areas of high risk. This travel clinic service is especially useful for students encouraged to study abroad. Of the 20 most common destinations for Americans to study abroad, 6 are in developing countries which indicates a higher risk for infectious diseases (Removing Obstacles to Healthy Development: Infectious Disease Report) (Open Doors 2008: Americans Studying Abroad). These services entail not only recommended vaccinations, but also education on how to avoid contracting the diseases. Immunization, allergy, and travel clinics are provided by all the universities. Travel clinic services include vaccination and consultation on avoiding the destination’s disease, if applicable.

Radiology services are utilized by primary care providers. The results of using this service show what health predicament has occurred. Then the patient is sent to the correct service to treat the problem. The radiology services offered at the universities are X-rays and EKGs. Radiology instruments are very expensive with the most basic service being X-rays but extending to MRIs and nuclear medicine. While these services are beneficial, the services are not provided by student health. The chapter concerning heart disease and stroke in *HC2010* has the goal of “improving cardiovascular health and

quality of life through the prevention, detection, and treatment of risk factors". The EKG service serves a valuable function for students with heart conditions. All universities provide basic radiology services to the extent of X-ray and EKG. No universities provide further radiological services.

Lab testing is still required to diagnose many of the most common diseases. Lab services require trained technologists to obtain specimens from the patient and then to test for problems. Diabetes is a common disease that requires blood testing to be diagnosed. According to *HC2010*, per every 1000 students, 8.4 are diagnosed with diabetes every year. College students' need for these services is quite pertinent. Reports indicate that 2,338 students per 10,000 have a chronic illness like diabetes which affects their academic performance each year (ACHA 2002). The results of testing are important for health care professionals to diagnose patients. Whenever on-site labs cannot complete certain tests, there are off-site labs where samples can be sent. However, promptness is essential in helping ill patients, so off-site services need to be quick if on-site services cannot be completed. All the universities have certified lab services and offer off-site services if unable to test in their own facility.

Each year 1 in 4 teen's contracts a Sexually Transmitted Infection (STI), and half of all 25 year olds will have had a STI in their lifetime (Alan Guttmacher Institute) (Cates, Herndon and Schulz). This high frequency of infections shows the ongoing need for sexual health services to be available for students. Sexual health services include contraception, STI testing, and sexuality education. STI's can affect the overall health of a person, and some, such as HIV, can lead to a shorter lifetime. Many STIs are permanent and cannot be eliminated with medications. Proper use of contraception can greatly reduce the risk of STIs. *HC2010* lists many objectives concerning STIs, specifically to reduce the STIs: chlamydia, gonorrhea, syphilis, genital herpes, HPV, pelvic inflammatory disease (PID), and HIV. Objectives are listed for improving college students' personal behaviors by: increasing abstinence and condom use (25-11), increasing the number of females annually screened for chlamydia (25-16), increasing the proportion of physicians treating STIs (25-18), increasing treatment for bacterial STIs, and

offering the same service to the sexual partner (25-19) (ACHA 2002). Physicians should test for STIs on regular visits and explain birth control medication plans available to female students. Simply educating students of the risks of STIs and how to avoid contracting them does not show reduction in exposure to infections (Baldwin and Baldwin). Instead, education on lifestyles, social responsibility, and caution of risky behaviors shows more positive correlations with reducing exposure to STIs. Emphasis should be placed on the educational aspect while continuing to update and improve treatment. All the five universities provided sexual health services to students.

Sexual health services correlate with some of women's health services. At this time, prescription birth control is only available to women. Therefore, physicians are required if the service wants to offer birth control to college students. *HC2010* has a chapter on family planning with the goal of improving pregnancy planning and spacing, and preventing unintended pregnancy. Objective 9-5a is to increase the appropriate use of emergency contraception by sexually active college women. Baseline reports show 6.7% of self reporting college females do so, and targets are set for 10.2%. Emergency contraception is a relatively new option and does not require a prescription. Objective 9-7a is to reduce unintentional pregnancies among college women with a decrease from 25.3% to 17.5% (ACHA 2002). With the availability and awareness of emergency contraception, this is an option for college females and the goal can be reached. Women's health services offer more than sexual health services for women. In 2008, the number one diagnosed cancer in women was breast cancer (American Cancer Society). All women's health services offer breast exams and other exams, such as pap tests to detect for cancers. Within *HC2010's* chapter about cancer, objective 3-11 is to increase the proportion of women and college women who receive a pap test, and to increase the proportion of college women who received a routine gynecological exam in the last year (3-11c). All the universities provide women's health service to students. At UK, a class is recommended before birth control is prescribed. This class is utilized to educate college women on how to correctly use prescription birth control.

Sports medicine services extend from college athletics to any student that participates in physical activity. Generally, the service is composed of physical therapy, massage therapy, and sports medicine. Physical therapy is a service utilized by anyone needing recovery from a musculoskeletal injury, applicable to anyone from the entire student body. Physicians specializing in sports medicine can answer questions and help students with ongoing physical activities, even if these activities are recreational. Also, due to the higher rates of physical activity among this age group, these services are theoretically in more demand. Usually, student athletes are the primary users of the sports medicine service. Student athletes experience specific health problems, which is why there are specialized health professionals that work with these students. One third of student athletes reported a sports-related injury; and, the student athletes indicated injury and academics were the most stressful factors they experienced (Selby, Weinstein and Bird). In addition, student athletes experience weight and diet issues, especially among females (Selby, Weinstein and Bird). All the universities provide sports medicine services and physical therapy, some occurring only on certain days. Only UF, UG, and USC provide massage therapy services.

Summary:

Student health is a mixture of meeting adolescent and young adult health needs while students attend a university. Students rely on their Student Health Centers to provide them with primary care services. Therefore, the services offered need to be refined to accommodate those healthcare needs important to students. The healthcare received by students, mainly ages 18-25 years, will affect their healthcare practices for a lifetime. This isolated demographic on campuses means many services can be tailored to this population. Health promotion services have the unique opportunity to educate students on healthy behaviors. Even though students are participating in unhealthy practices, students have the ability to choose to participate. Therefore, health education is the best way to improve student

behaviors and health status (Becker, Johnson and Vail-Smith). Demand is rising for mental health services on campuses, so schools need to transform their services with the changing needs. When examining the student health centers at the public universities in the SEC-East, these services are commonly offered: After hour emergency care; lab services; radiology; sports medicine; immunization/allergy clinics; travel clinics; sexual health; and women's health. Services needing improvement are mental health and health promotion. Services not existing at some universities are: After-hour health professionals at UG and UT; dermatology clinics at UK, USC, and UT; pharmacy at UT; dental clinics at UF, UK, USC, and UT; and vision/hearing services at all schools.

This research has detailed the services that need improvement and the services available at the universities in the SEC-East. The universities were chosen because of their likeness in size and location. However, some factors that affect Student Health Services exist that would provide more insight. Among the areas in need of further investigation are: How does having a college of medicine on campus affect services? What is the impact of varying student health fees? What is the result of funding provided by Student Affairs? Is there a difference in public and private universities' Student Health Services? The answers to these questions can be a resource to improve Student Health Services. Student Health Services offered through universities have the responsibility of providing the best primary healthcare to students. Considering many students rely solely upon their Student Health Center for healthcare, the improvement of Student Health Services benefits the health of this population and the campus environment for a lifetime.

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| Service | | University of Florida: Student Health Care Center | University of Georgia: University Health Center | University of Kentucky: University Health Service | University of South Carolina: Student Health Services | University of Tennessee: Student Health Service |
|---|-----------------|---|---|--|---|--|
| After Hours Physician | | Non-emergency: urgent medical question and urgent mental health question hotlines | Urgent Care for Serious Injury | On-call physician for consultation | First Responders Program (for emergencies 24/7) | Discount at UTMedical Center ER |
| Dermatology | | Available weekly with UF-COM Dermatologists/ Mole Screenings | Dermatology Nurse Practitioner Available | no service | no service | no service |
| Health Education | | <i>Gatorwell Health Promotion Service:</i> | <i>Health Promotion Dept.</i> | <i>Health Education and Promotion Program.</i> | Campus Wellness | Wellness Coordinator; <i>Safety, Environment, and Education Center</i> |
| Immunization/ Allergy Clinic | | Allergy Clinic (supply own antigen); Immunization Clinic; Influenza Campaign | Allergy Clinic (fee) | Allergy Clinic; Immunization Clinic (fee) | Allergy Clinic (fee) | Immunization Clinic; Allergy Clinic |
| Lab Services | On-site | CAP ¹ Certified; ~50 clinical lab tests; test- fees | Medical and Diagnostic | Mentioned with fee | COLA ² Certified (fee) | Certified by Joint Commission |
| | Off-site | Provided with test-fees | Provided with test-fees | Provided with test-fees | Provided with test-fees | Provided with test-fees |
| Mental Health | | Evaluation; Individual Counseling and Psychotherapy; Couples Therapy; Group Therapy; Psychiatric Consultation; Crisis Intervention Program; Consultation | Individual Counseling; Group Counseling; Psychological testing; Psychiatric Services; Crisis intervention (during and after hours); Consultation services; Outreach programs | Evaluation; Treatment; Crisis Intervention and Emergency Care; Consultation and Outreach | Counseling; Group Therapy | Personal Counseling; Psychotherapy; Psychological Outreach; Consultation Services |

| | | | | | |
|------------------------|---|---|--|--|---|
| Pharmacy | Outpatient; Discounts; Over-the-Counter Medication | Discounts; Over-the-Counter Medication | Satellite of Kentucky Clinic Pharmacy; Discounts | Discounts; Over-the-Counter Medication | No service |
| Radiology | Xray; EKG | Xray | Xray (fee) | Xray; EKG; (fee) | Xray; EKG |
| Sexual Health | STI screening; Emergency Contraception | Sexual Health Coordinator; Contraception; STI screening (fees) | Contraception; STI screening | Contraception; STI screening | Contraception; STI screening |
| Sports Medicine | Available twice weekly/ Physical therapy/ Massage Therapy | Sports Medicine Clinic: Treatment for musculoskeletal injury; Physical Therapy; Massage Therapy | Sports Medicine Clinic once weekly; Physical Therapy Clinic | Sports Medicine Clinic and Orthopedic Clinic once weekly with USC-SOM; Physical Therapy (fee); Massage Therapy (fee) | Sports Medicine, Physical Therapy Clinics |
| Travel Clinic | Immunizations/ Consultation | Immunizations/ Consultation (fee) | Immunizations/ Consultation | Immunizations/ Consultation (fee) | Immunizations/ Consultation |
| Women's Health | Breast exams; Gynecology; Pregnancy Tests | Annual Women's Exam; Gynecology; Women's Clinic | Gynecology; Pregnancy Tests; Prescription Contraception (requires prerequisite class attendance) | Women's Exam; Women's Care Clinic | Gynecology (fee); Knox County Health Dept Family Planning in facility |
| Other notable | Medical studies | Dental Clinic | Observation Beds (daily); Outpatient Surgery (fee) | "Ask a Nurse" telephone consultation service | Outpatient Surgery |

Primary-care services available to undergraduate populations at large public universities in the SEC East

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The University of Tennessee, Knoxville

Table 1. Comparison of SEC-East Student Health Services

| Service | University of Florida: Student Health Care Center | University of Georgia: University Health Center | University of Kentucky: University Health Service | University of South Carolina: Student Health Services | University of Tennessee: Student Health Service |
|-------------------------------------|---|--|--|--|---|
| After Hours Physician | Non-emergency: urgent medical question and urgent mental health question hotlines | Urgent Care for Serious Injury | On-call physician for consultation | First Responders Program (for emergencies 24/7) | Discount at UTMedical Center ER |
| Dermatology | Available weekly with UF-COM Dermatologists/ Mole Screenings <i>Gatorwell Health Promotion Service:</i> | Dermatology Nurse Practitioner Available | no service | no service | no service |
| Health Education | | <i>Health Promotion Dept.</i> | <i>Health Education and Promotion Program.</i> | Campus Wellness | Wellness Coordinator; <i>Safety, Environment, and Education Center;</i> Immunization Clinic; Allergy Clinic |
| Immunization/ Allergy Clinic | Allergy Clinic (supply own antigen); Immunization Clinic; Influenza Campaign CAP Certified; ~50 clinical lab tests; test- fees | Allergy Clinic (fee) | Allergy Clinic; Immunization Clinic (fee); | Allergy Clinic (fee) | |
| Lab Services | On-site Provided with test- fees Off-site Evaluation; Individual Counseling and Psychotherapy; Couples Therapy; Group Therapy; Psychiatric Consultation; Crisis Intervention Program; Consultation | Medical and Diagnostic | Mentioned with fee | COLA Certified; (fee) | Certified by Joint Commission |
| Mental Health | Evaluation; Individual Counseling and Psychotherapy; Couples Therapy; Group Therapy; Psychiatric Consultation; Crisis Intervention Program; Consultation | Individual Counseling; Group Counseling; Psychological testing; Psychiatric Services; Crisis intervention (during and after hours); Consultation services; Outreach programs | Provided with test- fees Evaluation; Treatment; Crisis Intervention and Emergency Care; Consultation and Outreach | Provided with test- fees Counseling; Group Therapy | Provided with test- fees Personal Counseling; Psychotherapy; Psychological Outreach; Consultation Services |
| Pharmacy | Outpatient; Discounts; Over-the-Counter Medication | Outreach programs Discounts; Over-the-Counter Medication | Satellite of Kentucky Clinic Pharmacy; Discounts | Discounts; Over-the-Counter Medication | no service |
| Radiology | Xray; EKG | Xray | Xray (fee) | Xray; EKG; (fee) | Xray; EKG |
| Sexual Health | STI screening; Emergency Contraception | Sexual Health Coordinator; Contraception; STI screening (fees) | Contraception; STI screening | Contraception; STI screening | Contraception; STI screening |
| Sports Medicine | Available twice weekly/ Physical therapy/ Massage Therapy | Sports Medicine Clinic: Treatment for musculoskeletal injury; Physical Therapy; Massage Therapy | Sports Medicine Clinic once weekly; Physical Therapy Clinic | Sports Medicine Clinic and Orthopedic Clinic once weekly with USC-SOM; Physical Therapy (fee); Massage Therapy (fee) | Sports Medicine, Physical Therapy Clinics. |
| Travel Clinic | Immunizations/ Consultation | Immunizations/ Consultation (fee) | Immunizations/ Consultation (fee) | Immunizations/ Consultation (fee) | Immunizations/ Consultation (fee); |
| Women's Health | Breast exams; Gynecology; Pregnancy Tests | Annual Women's Exam; Gynecology; Women's Clinic | Gynecology; Pregnancy Tests; Prescription Contraception (requires prerequisite class attendance) | Women's Exam; Women's Care Clinic | Knox County Health Dept Family Planning in facility |
| Other notable | Medical studies | Dental Clinic | Observation Beds (daily); Outpatient Surgery (fee) | "Ask a Nurse" telephone consultation service | Outpatient Surgery |

■ CAP: College of American Pathologists
■ COLA: Commission on Office Laboratory Accreditation

Introduction

Undergraduate students enrolled in public supported universities are provided primary health care through a Student Health Service. Services offered range from diagnostic clinics to health education. The majority of undergraduate populations are young adults aged 18-25 (HC2010). At this age and with students vacating the home to reside in campus residence halls, students spend their first year as an independent on college campuses. With this newfound autonomy there is an increase in unhealthy behaviors. Therefore, the importance of access to health care, including health education, is partially served by a Student Health Service.

As a senior enrolled at the University of Tennessee in Knoxville having spent four years receiving health care from the Student Health Service, my interest in primary health care available to undergraduate populations at large, public universities resulted in this research. As the capstone of my Chancellor's Honors Program degree in the College of Arts and Sciences, this Senior Honors Project has been an interdisciplinary study of undergraduate health care services at the five South-Eastern Conference (SEC) Eastern Division universities. The goal of the comparison was to offer insight into available services and the potential lack of health services. A profile was generated to compare and contrast primary care services. The intention of presenting the findings is to reveal areas in need of improvement and to promote awareness for the necessity of health services for a vulnerable population whose health care practices will impact personal health for a lifetime. Likewise, my enrollment in medical school next year means the results of this research have affected my perception of health care and future career as a medical doctor.

Methodology

In this research, data concerning a universities' Student Health Service was gathered through annual reports, the school's student health service website, personal and phone interviews, and by other printed materials provided by the school. A literary review was conducted concerning student health. The American College Health Association (ACHA) published "Healthy Campus 2010: Making it Happen" as a companion to the U.S. Department of Health and Human Sciences' (HHS) "Healthy People 2010" document. This document provides nationwide objectives concerning areas of health care improvement for Americans. "Healthy Campus 2010" focuses on campus populations; therefore, these areas were used to address health services. Also, the National College Health Assessment (NCHA) provides responses from a target group of college students relevant to student health.

South-Eastern Conference, Eastern Division Public Universities

University of Florida in Gainesville: Student Health Care Center (undergraduate pop. 35,189)



University of Kentucky in Lexington: University Health Service (undergraduate pop. 18, 770)

University of Georgia in Athens: University Health Center (undergraduate pop. 25,335)



Findings

Research is ongoing to ascertain personal comments from Student Health Service administrators. The findings, in no particular order, indicate the following:

Services Needing Improvement

After Hours Physician

- The Universities of Georgia, South Carolina, and Tennessee do not provide on-call medical staff to answer health-related questions when the service is closed.

Dermatology

- The Universities of Kentucky, South Carolina, and Tennessee do not have a dermatology service available.

Health Education

- According to the NCHA, when students were asked "Which of the following health topics have you ever received information from your college or university," the top responses were alcohol and other drug use prevention, sexual assault/relationship violence prevention, and physical activity and fitness. For these three topics, no more than 50% of the students reported receiving information. The students received the least information on violence prevention, suicide prevention, and injury prevention.

Mental Health

- Student Health Care Administrators expect mental health treatment to increase in the near future.
- Mental Health factors affecting academic performance include stress, lack of sleep, concern for a friend or family member, depression, and anxiety disorders.

Pharmacy

- The University of Tennessee Student Health Service does not have a pharmacy. Nor does it offer discounts or co-pays for medication. The Universities of Florida, Georgia, Kentucky, and South Carolina offer discounts and/or co-pays through their pharmacy.

Dental

- Only The University of Georgia has a dental clinic available for students.

Vision and Hearing

- No university provides vision or hearing services within their Student Health Service.

Services Commonly Available

- All universities provide Emergency Care after hours, either within their department or collaborating with local hospitals.
- All universities have Health Promotion services and Wellness Coordinators.
- All universities have Lab services on-site, and offer off-site Lab services if unable to test.
- All universities have Radiology services to the extent of X-ray.
- All universities have Sports Medicine services, including Physical Therapy.
- All universities have Immunization/Allergy clinics, Travel clinics, Sexual Health services, and Women's Health services.



University of South Carolina in Columbia: Student Health Services (undergraduate pop. 18,827)

University of Tennessee in Knoxville: Student Health Service (undergraduate pop.21,369)



References Upon Request