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## Understanding the Role of Political Commitment and Coherence Across Sectors and Across National and Sub-National Levels in Enabling Improvements in Nutrition in Rwanda

Elyse Iruhiriye

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UNDERSTANDING THE ROLE OF POLITICAL COMMITMENT AND COHERENCE ACROSS  
SECTORS AND ACROSS NATIONAL AND SUB-NATIONAL LEVELS IN ENABLING  
IMPROVEMENTS IN NUTRITION IN RWANDA

by

Elyse Iruhiriye

Bachelor of Arts  
Boston University, 2011

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Accepted by:

Edward A. Frongillo, Major Professor

Christine E. Blake, Committee member

Simeon Nanama, Committee Member

Deanna K. Olney, Committee Member

Cheryl L. Addy, Vice Provost and Dean of the Graduate School

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## **Dedication**

To my father's parents, Marcel Makoresho and Emma Ndabacekure and my mother's parents, Jean Ntibanga and Anna Ntibikwinge

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## Abstract

Reducing undernutrition is on the political agendas of many low- and middle-income countries. There is general consensus that to improve nutritional outcomes involves actions across the different sectors that influence both the immediate and underlying determinants of optimal nutrition and an enabling environment to support the political and policy processes. Despite renewed attention over the last 15 years, addressing nutrition in a multisectoral way was previously promoted in the 1970's but failed to have sustained political commitment due to its organizational complexities to plan and implement strategies across sectors.

We conducted an in-depth retrospective case study to understand how Rwanda, a low-income country with high burdens of undernutrition, achieved progress reducing undernutrition and how the country addressed the challenges presented by multisectoral nutrition strategies. We conducted a document review of nutrition and nutrition-related policies and programs since 2000, in-depth interviews with nutrition stakeholders at national (n=32), district (n=38), and community (n=20) levels, and community focus group discussions (n=40) in 10 purposefully selected districts in Rwanda's five provinces. In each province, we selected one district with decreased stunting (reduced districts) and one where no change or an increase occurred

(non-reduced districts) between the two last Rwanda Demographic and Health Surveys (2010 and 2014/15).

After 2008, reducing undernutrition became a national priority in rhetoric, policy, and institutionally. Nutrition goals were gradually integrated into different sectoral policies and in national economic development strategies. Political commitment to nutrition was generated across sectors at national level and translated to sub-national levels where, because of the country's decentralized governance system, mid-level leaders had increasing responsibilities for coordinating and implementing nutrition strategies. Institutional bodies were established to facilitate collaboration across sectors and actors at both the national and sub-national levels. At the sub-national context, we find that capacity in nutrition, nutrition monitoring and evaluation, and the implementation of coherence were reported to be more optimally implemented in the districts that improved stunting compared to the non-reduced districts.

The results from this study provide a narrative on how improvements occurred in Rwanda, a better understanding of implementing multisectoral nutrition strategies at the sub-national context, and the perspectives of the mid-level leaders and frontline workers coordinating and implementing multisectoral nutrition programs and services.



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## Chapter 1: Introduction

Undernutrition is a multi-factorial issue that requires multisectoral and multi-level responses to address its different determinants: the immediate, underlying, and enabling environment. Conventionally, however, undernutrition was sometimes perceived to be a single issue that should be addressed by the health sector or a food issue that could be solved by providing food to the poor. Strategies and programs to solve undernutrition, therefore, focused on addressing the immediate determinants of undernutrition, those that lie on primarily on biological pathways to undernutrition, through programs to identify and treat acute malnutrition, provide behavior change communication on optimal feeding and care practices, or provide supplemental food and/or micronutrient supplements for children and mothers. Even if implemented at scale, programs or interventions that only focus on the immediate determinants of undernutrition, also known as nutrition-specific interventions, would only reduce child mortality or stunting by 15 to 20 percent (Bhutta et al., 2013). The challenge of focusing only on the immediate causes of a health problem is that it overlooks the role of environmental and structural causes that are external to individuals but have the power to accelerate the development of the immediate causes (Becker, 1986). In nutrition, these underlying and structural determinants that create environments conducive to improved nutritional outcomes include the availability, access, and use of food or food security, feeding and caregiving resources for mothers, households, and communities,

access to and use of health services, and access to safe and hygienic water and sanitation environments (Black et al., 2013).

Improving nutritional outcomes therefore involves actions across the different sectors that influence both the immediate and underlying determinants of optimal nutrition and an enabling environment to support the political and policy processes needed to ensure coordinated actions across the different sectors and stakeholders addressing nutrition (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013). The 1990 UNICEF malnutrition framework and its most recent adaptation in the 2013 Lancet Series on Maternal and Child Nutrition highlight well that nutrition-relevant sectors include health, agriculture, social protection, education, water and sanitation, and gender (Black et al., 2013; UNICEF, 1990). Improving service delivery in these sectors and complementing the programs and interventions of these sectors with specific nutrition actions and goals has the potential of further reducing undernutrition through nutrition-sensitive programming (Ruel & Alderman, 2013). Achieving this integration of nutrition across diverse sectors, institutions, and actors in a specific setting is a difficult task. It is for these reasons that at the macro-level, the enabling environment is also a determinant for optimal nutrition. It consists of the political, social, and economic context, leadership, along with capacity and nutrition governance. These multi-level and diverse contributors to nutrition are what make nutrition a core indicator of development.

The influential 2008 and 2013 Lancet Series on Maternal and Child Nutrition has been credited for harmonizing understanding of the definition, causes, and existing and

potential solutions to undernutrition, thereby increasing awareness and the need to prioritize nutrition across sectors and stakeholders globally. These efforts contributed to renewed momentum for nutrition globally. The Scaling Up Nutrition Movement, which seeks to provide a concerted effort across governments, civil society, donors, development partners, and the private sector in aligning and scaling up their activities to end undernutrition, reinforced this renewed priority, especially on multisectoral strategies (Mokoro, 2015). These initiatives have contributed to governments adopting multisectoral nutrition policies and have reinforced attention on the political and policy processes that support the effective coordination of actions across sectors to address the different determinants of undernutrition and ultimately lead to improvements in outcomes. With the increased global prioritization of reducing undernutrition and as countries are increasingly committed to reduce undernutrition, discussions on how countries with high burdens of undernutrition achieve improvements in nutritional outcomes are important.

Despite the renewed attention, addressing nutrition in a multisectoral way through policy is a mechanism that the international nutrition community has promoted previously. This multidisciplinary method of addressing nutrition was first introduced in the 1970's and it was termed multisectoral nutrition planning (Berg, 1987; Field, 1987). Less than a decade later, however, the strategy failed to have sustained political commitment and was abandoned after underestimating the organizational complexities required not to only plan for nutrition across sectors but also to effectively implement strategies (Field, 1987). Lessons from the multisectoral nutrition planning phase of the

nutrition field must be acknowledged and considered during this new momentum for multisectoral strategies and policy in order to learn from the past and to ensure sustainability of the current global prioritization for nutrition.

Recent policy literature on nutrition, however, shows that similar political and institutional challenges faced during the multisectoral nutrition planning phase in the 1970's continue to affect how undernutrition is addressed globally (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Mejía Acosta & Fanzo, 2012; Morris, Cogill, & Uauy, 2008). For example, a lack of sustained political commitment to nutrition has been found to inhibit the optimal implementation and funding of the institutional mechanisms established to promote addressing undernutrition through multiple sectors (Baker et al., 2018; Hoey & Pelletier, 2011a; Mejía Acosta & Fanzo, 2012). Institutionally, countries continue to face challenges addressing the organizational and operational considerations of how to bring together and assign responsibilities to the different sectors that influence undernutrition from the policy to the program implementation level (Gillespie, Bold, & Team, 2017; Kennedy et al., 2015; Webb et al., 2016). The challenge of this multidisciplinary method is that the involved sectors do not always view improving nutrition as one of their mission or institutional goals or they fall short integrating nutrition goals in the different sectors' plans and policies, thereby affecting the implementation of strategies that can target the different determinants of undernutrition.

The cooperation needed to effectively align and address nutrition goals and actions across the involved sectors and levels of implementation requires nutrition

coherence. Coherence in nutrition occurs when political commitment to nutrition is converted into a system that has institutional structures and processes to coordinate nutrition policy implementation in a mutually reinforcing manner (Gillespie & Bold, 2017). Sectors working together must have a shared understanding of the nutrition challenge, a clear understanding of roles, responsibilities, partnership types, clear communication including sharing information, and shared resources and rewards to operationalize multisectoral nutrition policies and strategies, including program implementation in communities (Mattessich, Murray-Close, & Monsey, 2001; Shigayeva, Atun, McKee, & Coker, 2010).

Efforts to systematically understand and share the experiences of countries that have achieved progress in reducing undernutrition have increased over the years. The experiences of these countries contribute to the knowledge of how countries face the political and institutional challenges of reducing undernutrition and how changes in undernutrition can occur in different contexts (Gillespie & van den Bold, 2017; Levinson & Balarajan, 2013; Mejía Acosta & Fanzo, 2012; Mejía Acosta & Haddad, 2014). Having this experiential understanding is especially important for informing practice in the countries and regions of the world where progress has been minimal or slow, including in the Africa region. Between 1970 to 2010, trends in the prevalence of stunting among children under five decreased by only 6 percentage points in Africa whereas other regions of the world experienced over 20 percentage point reductions (Smith & Haddad, 2015). Research in this arena has mainly focused, however, on the political and institutional processes and mechanisms of addressing nutrition in a multisectoral way at



the national level. Less is known about the implementation context of how sub-national level political and institutional efforts affect improvements in undernutrition or the views and motivation of mid-level stakeholders who coordinate and implement nutrition actions at the sub-national levels.

This study aims to understand the paths of change at national and sub-national levels in the reduction of undernutrition in Rwanda through the role of political commitment to nutrition and coherence in nutrition actions. Although it remains a high burden country, Rwanda has over the last 25 years successfully made progress reducing stunting. The reduction is highly differential across the country's districts, however. This work is grounded within the Stories of Change in Nutrition case studies that have been conducted in other high-burden countries that have achieved progress in reducing undernutrition. This case study of Rwanda will specifically answer the following research questions:

- 1) How do political commitment, nutrition coherence, and community help to explain the nutritional changes observed in Rwanda between 1992 to 2017?
- 2) What differences exist in political commitment, nutrition coherence, and community among districts that reduced and did not reduce stunting that may explain the differential change in stunting reduction observed at the district levels (sub-national) in Rwanda?
- 3) What is the role of mid-level leaders from the various sectors that influence nutrition in the implementation national multisectoral nutrition policies?

This document is organized into five chapters, including this introductory chapter. Chapter 2 presents the background, rationale, and significance of this study. Chapter 3 describes the study's research design and methodology. Chapter 4 presents the study's results in two original manuscripts. In chapter 5, I will present a summary and the conclusion of this study, including implications for future research.

## Chapter 2: Background and Significance

### 2.1 Multisectoral nutrition policies

Multisectoral nutrition policies and plans were first promoted in the early 1970's when the nutrition field recognized malnutrition as a complex condition that required solutions across different ministries to address the different causes of malnutrition (Berg, 1987; Field, 1987). Multisectoral nutrition planning, as it was termed, advocated that nutrition was a central component of overall development and therefore required multidisciplinary planning across the sectors that influence it, such as agriculture, health, and education, and the political economy (Berg, 1987; Field, 1987). Similar to the promotion of nutrition-sensitive intervention today, supporters of multisectoral nutrition planning regarded malnutrition as a structural problem that could not be fixed with narrow actions focused only on one sector. Rather, multisectoral nutrition planning endorsed a systems perspective and analysis of nutrition that required comprehensive and systematic planning (Berg, 1987).

By the late 1970's and early 1980s, however, multisectoral nutrition planning had lost its momentum and was discarded by stakeholders, including governments. The analysis of why multisectoral planning lost its momentum presents two overarching reasons: the complexity and insufficiency of relevant data needed in supporting multisectoral nutrition planning and a lack of sustained political priority to the structures and mechanisms needed to implement multisectoral nutrition planning. In

regard to the lack of sufficient data, even proponents of multisectoral nutrition planning admitted that it was difficult to have the data needed across sectors and to the level needed for program implementation (Berg, 1987). There were also insufficient agreement among experts about the correct methods to measure and assess impact on nutrition from multisectoral strategies in order to inform the decision-making process (Field, 1987).

The challenges of sustaining the political priority placed on multisectoral nutrition planning were both political and institutional. Multisectoral nutrition planning was organizationally complex and required bureaucratic reorganization to achieve collaboration on nutrition across different ministries, a topic that those institutions may have perceived to be out of their domain. Many countries established national nutrition units as an institutional response to this challenge but these were often under-staffed, under-funded, and lacked the management tools to coordinate different ministries (Berg, 1987; Field, 1987). While the multisectoral nutrition planning framework was appropriate in its method of addressing nutrition through multiple sectors, implications for implementation both in planning across ministries but also programmatic implications on the ground were not adequately addressed and to an extent overlooked. Political commitment to multisectoral nutrition planning was reflected in the established national nutrition units and multisectoral nutrition plans but more was required in order to implement multisectoral nutrition planning as it was envisioned. Governments needed to adequately address the organizational complexities of integrating nutrition goals across different ministries and the institutional capacity

needed to manage this collaboration across some already weak institutions (Field, 1987). The institutional challenges eventually led to a lack of sustained support, funding, and political priority for multisectoral nutrition planning.

The field of international nutrition entered what has been called the “era of isolationism” after the multisectoral nutrition planning phase, whereby the focus of reducing undernutrition was placed more on community-based nutrition-specific interventions that targeted issues such as breastfeeding, feeding practices, and micronutrients (Garrett & Natalicchio, 2011). The seed of multisectoral nutrition had, however, been planted and it continued to influence how the global nutrition field viewed nutrition. For example, the influential 1990 UNICEF framework promoted a holistic view of nutrition and increased the multisectoral understanding of the causes of malnutrition (UNICEF, 1990). There were renewed efforts and commitment from countries to develop national plans of action that increased “intersectoral cooperation” through multisectoral committees that represented various sectors such as agriculture, health, education after the 1992 International Conference on Nutrition (FAO, 1992). Despite these renewed efforts and attention, multisectoral nutrition did not translate into action as was hoped because of insufficient resources and the policies and plans did not specify which interventions to implement or the mechanisms for implementing intersectoral nutrition (Rokx, 2000).

The 2008 and 2013 Lancet series on Maternal and Child Nutrition helped to advance the political priority and momentum for nutrition as the nutrition community’s framing for the burden, causes, and possible solutions aligned. The series highlighted the

severity of global malnutrition, effective nutrition-specific interventions that could reduce malnutrition if implemented at scale, and the need for multisectoral nutrition-sensitive programs that address the underlying determinants of malnutrition in sectors such as agriculture, health, social protection, early child development, and water, sanitation, and hygiene (Bhutta et al., 2008, 2013; Black et al., 2008, 2013a; Ruel & Alderman, 2013a). Furthermore, the series determined that more work needed to be done at the policy and institutional level to build commitment and implement effective actions at national level in order to improve undernutrition (Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup-Andersen, 2008a; Gillespie, Haddad, Mannar, Menon, Nisbett, et al., 2013). Along with movements such as the Scaling Up Nutrition (SUN) movement, the Lancet series increased political discourse on reducing undernutrition through multiple sectors and the political and policy processes to create and sustain commitment to nutrition.

As government and non-government stakeholders re-adopt multisectoral strategies to end undernutrition, the nutrition field must consider how the challenges of the multisectoral nutrition planning period have been addressed and if they continue to impose challenges. Reverting back to Field's assessment of the shortfalls of multisectoral nutrition planning, he described two key challenges: complexity and insufficiency of data and a lack of sustained political priority to addressing nutrition in a multisectoral way (1987). In the case of nutrition data for multisectoral nutrition, much progress has been made since the 1970's. There is increased availability and use of data across the sectors that influence nutrition and the collection of information, including

nutrition data, through population-based surveys. There is also a growing literature on the effectiveness of multisectoral nutrition interventions on nutritional status and other intermediate outcomes, although more evidence is still needed on different types of interventions (e.g., multisectoral agriculture, early child development programs) (Gelli et al., 2018; Leroy, Olney, & Ruel, 2019, 2018; Olney et al., 2020; Olney, Pedehombga, Ruel, & Dillon, 2015; Quisumbing et al., 2020).

The challenge of the lack of sustained prioritization of nutrition in multisectoral nutrition planning was two-fold. Advocates for multisectoral nutrition planning believed that the political intent or rhetorical support for the strategy would translate into action of what they perceived to be the necessary steps to implement multisectoral nutrition planning (Field, 1987). Rather, a more operational prioritization was also needed to address the organizational and structural mechanisms required to ensure implementation of multisectoral nutrition planning. It was not clear how to do this beyond establishing national nutrition units, which lacked the convening power and resources to get other ministries or sectors on board regarding nutrition.

Political commitment to nutrition and nutrition coherence are important categories to address these abovementioned challenges in multisectoral nutrition policies or strategies and their sustainability. Political commitment to nutrition is the intent and reflection of that intent to address nutrition through policy, processes, resources, and sustained actions (Baker et al., 2018; Gillespie et al., 2017; Heaver, 2005). Nutrition coherence occurs when political commitment to nutrition is converted into institutional structures and processes to coordinate nutrition actions and policy implementation

across sectors, administrative levels, and actors in a mutually reinforcing manner (Gillespie & van den Bold, 2017). Political commitment and coherence reinforce each other because beyond just rhetorical political commitment to multisectoral policies, institutional commitment to nutrition is also needed to reinforce coherence in how sectors take on responsibilities in nutrition and coordinate actions and services that address the environmental or underlying determinants of undernutrition in communities. A lack of political commitment or nutrition coherence affects the implementation of the other. For example, a lack of political commitment to addressing nutrition in the different sectors that influence nutrition will result in certain underlying determinants not being addressed and can inhibit improvements in outcomes. Alternatively, a lack of coherence in nutrition, whether in policy, across sectors, or across administrative levels, can lead to a lack of impact of nutrition actions, which can lead to decreased political commitment to multisectoral nutrition. And thus, a “lack of commitment breeds lack of impact breeds lack of impact” (Heaver, 2005, p.7). An integrative analysis of political and institutional dynamics in multisectoral nutrition policies and strategies is therefore imperative.

A review of health policy analysis in low- and middle-income countries found that while most policy processes research focused on the implementation phase, a large percent focused on implementation solely at the international or national level (Gilson & Raphaely, 2008). Similarly, although it is acknowledged that political commitment to and coherence in nutrition should be considered at both national and sub-national levels, research has mostly focused on these concepts at the national level and in



national-level stakeholders (Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup-Andersen, 2008b; Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013a). The perception of these concepts by sub-national actors and the role of political commitment and nutrition coherence at the sub-national level remains limited (Warren & Frongillo, 2017).

## **2.2. Political commitment to nutrition**

The framework on political priority of Shiffman and Smith is useful to understand how certain topics receive attention and priority from political and global leaders (Shiffman & Smith, 2007). The framework identifies four categories that influence how much a topic will be prioritized: 1) the strength of individuals or organizations concerned with the issue, or power, 2) the way in which the policy community frames the issue and the way external audiences will resonate with such framing, 3) the policy context, and 4) how the issue is characterized through credible indicators and communication of the severity of the issue.

Although increasing political priority of an issue, such as nutrition, is important, it is not sufficient to garner the support needed for political commitment. Political commitment to nutrition is not just influencing political leaders to prioritize nutrition and to place it on the political agenda; it also involves actions to accompany the intent to address nutrition through well-written policies. Political commitment to nutrition consists of concrete actions that sustain the priority placed on nutrition through established processes and mechanisms to facilitate effective implementation across sectors and from national to community levels, and sustaining those actions over time

until the goal of improved outcomes is achieved (Baker et al., 2018; Development Initiatives, 2017; Gillespie & van den Bold, 2017; Heaver, 2005a; D. J. H. T. E. Lintelo & Lakshman, 2015). Political commitment to nutrition is sometimes measured through indices such as the Hunger and Nutrition Commitment Index that consist of indicators on nutrition spending and the presence of nutrition and nutrition-related policies and programs and legal frameworks (D. J. H. te Lintelo, 2012). Such measures, however, do not assess how political commitment to nutrition is generated, implemented, and translated throughout different sectors and administrative levels.

To describe political commitment, I combine the conceptual frameworks for political commitment of Heaver (2005), the Stories of Change in Nutrition case studies (2017), and Baker and colleagues (2018) to synthesize the different but inter-related forms of political commitment (**Table 2.1**). The first form of commitment is rhetorical commitment. Rhetorical commitment consists of the political will and attention given to nutrition and of public statements or discourse usually given by leaders or politicians recognizing nutrition as an issue to be addressed (Baker et al., 2018; Gillespie & van den Bold, 2017; Heaver, 2005). The second form of political commitment to nutrition, institutional commitment, is the reflection of rhetorical commitment through policy and policy instruments, institutional structures, procedures, and incentives to implement actions across the involved actors and sectors. One of the important aspects of sustaining political commitment to nutrition is ensuring the policies and structures established in institutional commitment are functional and not underpowered. Thus, political commitment to nutrition also entails operational commitment. Operational

commitment is activating rhetorical and institutional commitment through optimal implementation across the path from national to community level, including the different actors with nutrition responsibilities at each level. The commitment of financial resources across these different forms of political commitment to nutrition is also needed to implement the different actions and activities in policies, plans, and institutional functioning.

Weak political commitment to nutrition is considered a contributor to persisting undernutrition and slow progress (Bryce et al., 2008; Heaver, 2005; Mejía Acosta & Fanzo, 2012). Although political will to address nutrition as a multisectoral issue has increased over the years, countries struggle to translate this commitment to sub-national levels or across the different sectors that influence nutrition due to differing views of undernutrition, lack of clear roles and responsibilities, and organizational capacities (Gillespie & van den Bold, 2017; Pelletier et al., 2012). Because of these challenges, it is important to consider the different forms of political commitment in order to identify where to intervene to strengthen and sustain political commitment to multisectoral nutrition. Achieving this sustainability in multisectoral nutrition will involve partnership building with the different involved stakeholders, strategic communication on how to bring different sectors to commit to addressing undernutrition within their respective sectors, and how to manage implementation on the ground. Essentially, sustaining political commitment to nutrition requires a clarity and consistency of communication and actions across institutions, sectors, and administrative levels and

shows that nutrition coherence is important for sustained political commitment to nutrition.

### **2.3 Nutrition coherence**

Multisectoral policies and strategies seek the comprehensive participation of different ministries, agencies, actors, and administrative levels in addressing undernutrition through roles such as agenda setting, implementation, and accountability (Friel, Baker, Nisbett, Buse, & Oenema, 2017). Implementing multisectoral policies therefore involves coherence in the sectoral policies of relevant ministries. This type of coherence involves understanding if and how relevant sectoral policies identify nutrition as a priority or challenge that can be addressed by their policies and programs. Coherence in nutrition also involves intersectoral or horizontal collaboration and vertical coordination between administrative levels, key pillars in understanding the relationships among the different nutrition stakeholders within the nutrition policy processes (Mejía Acosta & Fanzo, 2012). In horizontal coordination, the different sectors that influence nutrition work together to implement nutrition-relevant actions within their sectoral and institutional responsibilities or they converge their sectoral actions geographically (Garrett & Natalicchio, 2011; Gillespie, Menon, & Kennedy, 2015; Mejía Acosta & Fanzo, 2012). Vertical coordination across administrative levels links nutrition plans and actions from the policy level to implementation, which often occurs at sub-national levels. Coordinating nutrition actions also involves non-government actors such as the private sector, development partners, and civil society organizations. Addressing nutrition across such diverse actors,

sectors, and administrative levels in a country requires nutrition coherence. Nutrition coherence, therefore, examines the clarity and consistency of communication and actions across the policies, institutions, sectors, administrative levels, and actors working to address nutrition (Garrett & Natalicchio, 2011).

One of the reasons given for the demise of multisectoral nutrition planning in the 1970's and 1980's, was the organizational complexity required to coordinate nutrition across different sectors and the load placed on sometimes weak institutions to address not only their institutional goals but also nutritional goals (Field, 1987). Achieving nutrition coherence in multisectoral nutrition therefore also requires institutional mechanisms to develop a shared purpose for nutrition across the different involved sectors and to allow the involved entities to alter their activities to meet the shared nutritional purpose (Garrett & Natalicchio, 2011).

Many countries continue to face challenges coordinating different sectors to address nutrition policies; it requires thoughtful planning and strategic capacity to develop engagement at multiple levels (Benson, 2007; Field, 1987; Gillespie & van den Bold, 2017; Pelletier et al., 2012). While some countries have adopted national multisectoral coordination bodies to coordinate nutrition, this alone is not sufficient in establishing nutrition policy and program coherence. Although these units or bodies can help to generate high political support for nutrition, they can also lack the power to integrate nutrition goals and actions into different sectors or to bring them together to address nutrition (Field, 1987; Mejía Acosta & Fanzo, 2012). In the 1970s, some governments established multisectoral nutrition bodies without clear mechanisms or resources of

how they will function but as a way to appease the external pressures that were promoting multisectoral nutrition planning (Winikoff, 1978). Even in countries where there is awareness and acceptance of the need to address issues through multiple sectors, and where goals are defined and coordinating bodies are established, coordination can remain difficult due to the diverse interests, cultures, and missions of different sectors (Gillespie & van den Bold, 2017; Mejía Acosta & Fanzo, 2012; Pelletier et al., 2012). Pelletier and colleagues found that this difficulty in improving coherence required strategic capacity at the individual and institutional level to “build commitment and consensus toward a long-term strategy...resolve conflict..., build relationships among nutrition actors,...and sustain momentum (2011).”

Discussion on multisector coherence and coordination often focuses on national level strategies and plans without sufficient considerations for the realities of sub-national political commitment to nutrition and implementation challenges (Hoey & Pelletier, 2011; Swinnen, Shoham, & Dolan, 2016). Coherence in nutrition is sometimes perceived as a dichotomous category of just horizontal and vertical coordination, whereby horizontal coordination is viewed as something to be fostered at national level and vertical coordination as something to be coordinated across administrative levels. Coherence, however, is the operationalization of political commitment through processes and mechanisms that help stakeholders across sectors to work together at different administrative levels to define goals and responsibilities, discuss, negotiate, and resolve conflicts in multisector strategies (Gillespie & van den Bold, 2017; Mejía Acosta & Fanzo, 2012). Therefore, horizontal coherence is just as necessary at sub-

national levels where implementation occurs as it is necessary at national levels where policies are set. Fostering political commitment to nutrition is also important in stakeholders and institutions addressing nutrition at sub-national levels as it is at national level. For example, attempts to implement multisectoral coordination at sub-national levels in Bolivia failed to gain support in sectors outside of health although there was considerable political commitment to nutrition at national level (Hoey & Pelletier, 2011). Many of the mid-level leaders from the sectors that influence nutrition did not perceive the need for their sectors to be involved or having a specific role in nutrition (Hoey & Pelletier, 2011).

Overall, building nutrition coherence cannot be sustained without political commitment. Therefore, nutrition coherence is when commitment has become embedded and reflected in institutional structures and process that are appropriate and mutually-reinforcing (Gillespie & van den Bold, 2017).

## **2.4 Rwanda**

Rwanda is a landlocked country in East Africa that covers just over 10,000 square miles and borders the countries of Burundi, Uganda, and the Democratic Republic of Congo (NISR, 2006). Although geographically small, Rwanda is one of the most densely populated countries in the world, with a population density of 1,220 people per square mile (448 per square kilometer) and a total population of little over 12.2 million people (World Bank Group, 2020). The country is made up of three distinct geographical regions, the Western and North-Central region, the central plateau, and the eastern plateaus, which are characterized by rugged mountain and steep valleys in some areas

to rolling hills and flatter lowlands in others and elevations that range from just below 5,000 feet to 6,500 feet (1,500-2,000 meters) (NISR, MOH Rwanda, & ICF International, 2015). Although the urban population in Rwanda continues to increase, the majority of Rwandans live in rural areas (84%) (NISR et al., 2015).

While rare in Africa, Rwanda is a monolingual country; the people of Rwanda speak one language called Kinyarwanda. As a former Belgian colony, French was the second official language along with Kinyarwanda but the country changed the language of educational instruction to English in 2008 and joined the Commonwealth in 2009 (CIA, 2019; Clay & Lemarchand, 2020). Today, the country's official languages are Kinyarwanda, French, and English.

#### *2.4.1 Politics and Development*

To better understand how changes in nutrition have occurred in Rwanda over the last 25 years, it is important to consider the context of the country during this time period. In the early 1990's, Rwanda experienced a civil war that eventually led to a government orchestrated genocide against the Tutsi ethnic population in 1994 (Clay & Lemarchand, 2020). The genocide was stopped that same year after 100 days of terror but not before the country experienced 800,000 to 1 million deaths and severe political, social, and economic destruction. Since the end of the genocide, Rwanda has made great efforts to rebuild the country towards peace, security, and development through major political, economic, and social changes.

Rwanda's reconstruction after the genocide placed a high priority on economic development and improving the institutional capacity for good governance in the



country. These two goals were grounded in the country's long-term socioeconomic ambitions as identified in its Vision 2020 policy and the country's decentralization of certain functional and financial responsibilities to lower levels of government (MINECOFIN, 2000; Ministry of Local Government, 2001).

Established in the year 2000, Vision 2020 was Rwanda's overarching 20-year development strategy towards becoming a middle-income country. Though viewed as an aggressive or over-ambitious strategy, the country described the policy as a "reflection of our aspiration and determination...to transform [Rwanda] into a middle-income nation, in which Rwandans are healthier, educated, and generally more prosperous (Rwanda, 2000, p.i)." The strategy identified six pillars through which the country would improve overall development, including improving good governance and improving human resource development through investments in education and health. The other development pillars of the policy were the development of the private sector, infrastructure, agriculture, and achieving regional and international integration. The strategy also addressed three cross-cutting topics to be considered across all of Rwanda's policies and programs; these were gender equality, environmental protection, and science, technology, and ICT.

Though it remains a low-income country today, Rwanda has made significant development progress since the rolling out of its 20 year long-term vision. Since 2001, Rwanda's gross domestic product (GDP) has had an annual growth of six to eight percent and the per capita GDP has tripled to \$719 in 2014 compared to \$201 in 2001 (Compact 2025, 2016; NISR et al., 2015; World Bank Group, 2020). In addition, between

1990 and 2014, the country decreased the number of undernourished people from 56% to 32%<sup>1</sup> (Compact 2025, 2016; Food and Agriculture Organization of the United Nations [FAO], 2015). The government of Rwanda has also reduced poverty, improved access to education, infrastructure, and increased agricultural productivity (Compact 2025, 2016; CIA, 2019).

#### *2.4.2 Decentralization*

Rwanda adopted a national decentralization policy in 2001 to reform its public sector governance. Decentralization is “the transfer of authority or dispersal of power, in public planning, management, and decision-making from the national levels to sub-national levels (Mills, 1994).” Decentralization is argued to increase local autonomy, improve government accountability to local populations, and to improve public service delivery because local governments are better positioned to use resources according to local realities and interests compared to central governments that are too far away (Azfar, Kahkonen, Lanyi, Meagher, & Rutherford, 1999; Mills, 1994). In Rwanda specifically, the decentralization policy aimed to improve the efficiency of service delivery while empowering local populations to partake in local development and to enhance transparency, accountability, and reconciliation between local government and local populations (Kauzya, 2007; Ministry of Local Government, 2001).

The decentralization policy in Rwanda was implemented through legal reforms, newly established institutions, and a complete reorganization of the country’s

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<sup>1</sup> FAO defines undernourishment as the inability of a person to meet minimum daily dietary energy requirements over the course of one year. Hunger is chronic undernourishment.

administrative structures that was implemented in 2006 (Hasselskog & Schierenbeck, 2015; Ministry of Local Government, 2001). Prior to 2006, Rwanda was organized into six sub-national administrative levels. There were 12 provinces called “prefectures” divided into 22 sub-prefectures, 106 districts called “communes”, the sector (n=1,544), the cell (n=9,104), and the lowest administrative level was the village which was represented by clusters of households (**Table 2.2**) (World Bank, 2015). The decentralization policy reorganized and consolidated the country’s administrative structure into four levels based on: 1) the size of the population, 2) accessibility to public services, 3) economic viability, and 3) environmental considerations (Ministry of Local Government, 2001). The 12 “prefectures” were consolidated into five provinces, North, south, East, West, and City of Kigali, and the 106 communes into 30 districts. Sectors were reduced from over 1,000 to a total of 416 nationwide and were further divided into cells and villages (World Bank, 2015). The village level is, however, not considered a formal administrative unit and is led by an executive committee of elected village leaders.

Decentralization in Rwanda delegated responsibilities and functions to lower levels of government, including financial responsibility to a certain extent. Although below the national level, the provincial administrative level in Rwanda is considered an extension of the national level (World Bank, 2015). The local government structure begins with the district. The district is the center for sub-national economic development and is responsible for overall coordination, planning, financing, and the implementation of services in different sectors such as health, agriculture, and social protection (RGB,

2018; World Bank, 2015). The district is led by an elected district council and an appointed executive committee made up of one mayor and two vice mayors. Districts are financed through both locally generated revenues such as property taxation, trading licenses, or land rent and intergovernmental transfers from the central national government. While the amount of locally generated revenue has increased over the years, from 49 billion Rwandan Francs in 2006 to 440 billion Rwandan Francs in 2017/18, this amount only makes up 10 to 15% of district financing (RGB, 2018). An overwhelming majority of district funds continue to come from the national government.

The sector and cell administrative levels fall under the jurisdiction of the district. The delivery of basic services mainly occurs at the sector level while the cell is the closest administrative unit to local population and where local issues are discussed and identified. Performance contracts signed between the President of the Republic and the districts called “Imihigo” are used to enhance accountability of the decentralized levels in implementing service delivery and local development by setting local targets in line with national priorities and assessing progress towards meeting those targets at the end of the year. The “Imihigo” performance contracts have been attributed to improved accountability of the local government (World Bank, 2015).

#### *2.4.3 Nutrition situation in Rwanda*

Food and nutrition challenges have been widespread in Rwanda over the last 25 years. Child stunting prevalence stood at 45% in 1996 and it increased to 51.6% by the year 2005 (Compact 2025, 2016). In the early 2000’s, as the country was stabilizing

security-wise, child mortality rates were 196 death per 1,000 live births (NISR, 2006). Women's access to and use of health services was also limited as only about 25% of pregnant women gave birth in health facilities (NISR, 2006). Food security challenges were also rampant; almost 30% of households were food insecure and another 25% highly vulnerable to food insecurity in 2005 (Vinck, 2006).

Progress has been made in Rwanda over the last several years in nutrition. Women's access to and use of health services also improved with over 90% of women now giving birth in health facilities and child mortality down to 50 deaths per 1,000 live births (NISR et al., 2015). From 2005 to 2015, Rwanda reduced stunting and wasting in children under the age of five by 13.7 percentage points (pp) at national level (51.6% to 37.9%) and 3 pp (5% to 2%), respectively (NISR et al., 2015). Although anemia in children 6 to 59 months and women of reproductive age have decreased overall from 2005 to 2015, the reduction has been slow and anemia remains a highly prevalent and public health concern. Child anemia decreased by 14 pp between 2005 to 2010 but only by 1 pp between 2010 and 2015. For women of reproductive age, the prevalence of anemia decreased from 24.9% to 17.0% between 2005 to 2010 but it slightly increased to 19.2% between 2010 to 2015.

Although nutritional outcomes have been decreasing at national level, the trend is not uniform across the country. In 2005, the North and West provinces had the highest stunting prevalence at 55.8% and 52.9%, respectively (**Figure 2.1**). By 2015, the North province had reduced its stunting prevalence by almost 20 percentage points; it also had the largest reduction in stunting prevalence among all the provinces (17.9 pp). The East,

South, and City of Kigali also experienced large reductions (11.6, 12.1, and 12.1 pp, respectively). The Western province experienced the smallest reduction in stunting prevalence, under 10 pp, and had the highest stunting prevalence in 2015 at 44.0%.

At the district level, the change in stunting prevalence was variable according to the last two Demographic and Health Surveys conducted in the country. For example, although the prevalence of stunting decreased in all districts in the North province, Gakenke district reduced stunting by 17.6 pp while Musanze district reduced by 7.5 pp. In the South, East, and West province, there were also large differences between districts, with some districts reducing prevalence by double digits while others saw an increase in stunting prevalence (-10.1pp vs +20.4pp; -21.3pp vs +1.4pp; -14.5pp vs +7.5pp, respectively).

## 2.5 Conceptual Framework

Political commitment to nutrition and coherence in nutrition are inter-related and influence how countries prioritize and address nutrition through multiple sectors and sustain their commitment to nutrition (**Figure 2.2**). Understanding which forms of political commitment and coherence that countries generate, and which forms face challenges contributes to our understanding of how countries achieve progress and where progress can be accelerated. In this study, I examine the processes through which political commitment to nutrition and coherence in nutrition worked together over time to explain the changes observed in child nutrition outcomes in the case of Rwanda (**Figure 2.3**).

## 2.6 Significance

This study provides a narrative of how Rwanda, a country with high burdens of undernutrition that has recently faced political conflict, has made progress reducing stunting. For Rwanda, this study contributes to understanding how improvements in undernutrition have occurred over the years and the challenges that remain in nutrition, political commitment to nutrition, and nutrition coherence. This study also contributes to understanding what is facilitating or inhibiting progress in nutrition throughout the different districts in Rwanda and identifies possible policy responses that can be targeted to these different parts of the country. Studies often focus on understanding changes in nutrition from a national standpoint but this study aims to understand how change occurred both at the national and sub-national levels by incorporating the perspectives of diverse stakeholders at three different administrative levels: government and non-government stakeholders at national level, mid-level leaders at the district level, and program implementers and community members at community level.

The multisectoral nature of nutrition is not to be disputed, but the field continues to face challenges of how to bring together different institutions and actors from diverse sectors to collectively address nutrition. This study focuses on understanding the implementation of multisectoral nutrition from a policy standpoint and from the perspectives of stakeholders from the different sectors that influence nutrition working at different administrative levels. This effort will broaden our understanding of how coherence in nutrition is developed and how to enhance multisectoral nutrition

strategies, especially given that some of the challenges faced in multisectoral nutrition planning in the 1970s remain today.

Lastly, this research has implications for countries similar to Rwanda that are facing high burdens of malnutrition and rebuilding from civil conflict and tragedy on best practices of how to generate improvements in nutrition governance and stunting reduction.

**Table 2.1: Forms of political commitment to nutrition**

<b>Form</b>	<b>Description</b>
Rhetorical commitment	The political attention that nutrition receives from politicians, leaders, and non-government actors closely associated with the government. This attention consists of the stated intent to address nutrition through speeches, discourse, or national declarations.
Institutional commitment	The reflection of rhetorical commitment through policy and institutional structures, procedures, and incentives to implement and coordinate the actions needed to address the problem. The establishment of these policies or institutions can suffer from low commitment, however, which makes these inefficient and can face the possibility of being abandoned because they are deemed to lack impact.
Operational commitment	The reflection and implementation of rhetorical and institutional commitment from all the different actors involved in the chain of implementation, including the commitment of street level managers and frontline workers.



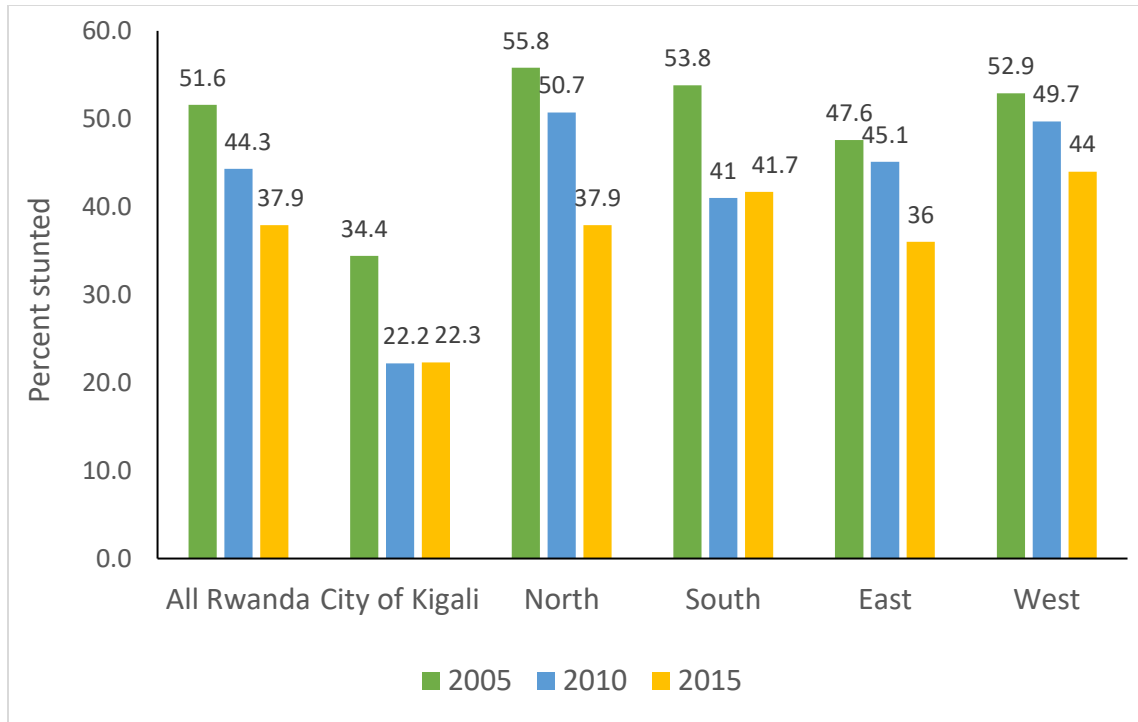
**Table 2.2 (Continued): Forms of political commitment to nutrition**

<b>Form</b>	<b>Description</b>
Financial commitment	The commitment of the financial resources needed to implement the different actions and activities described by policy and plans.

**Table 2.3: Administrative structure in Rwanda before and after 2006**

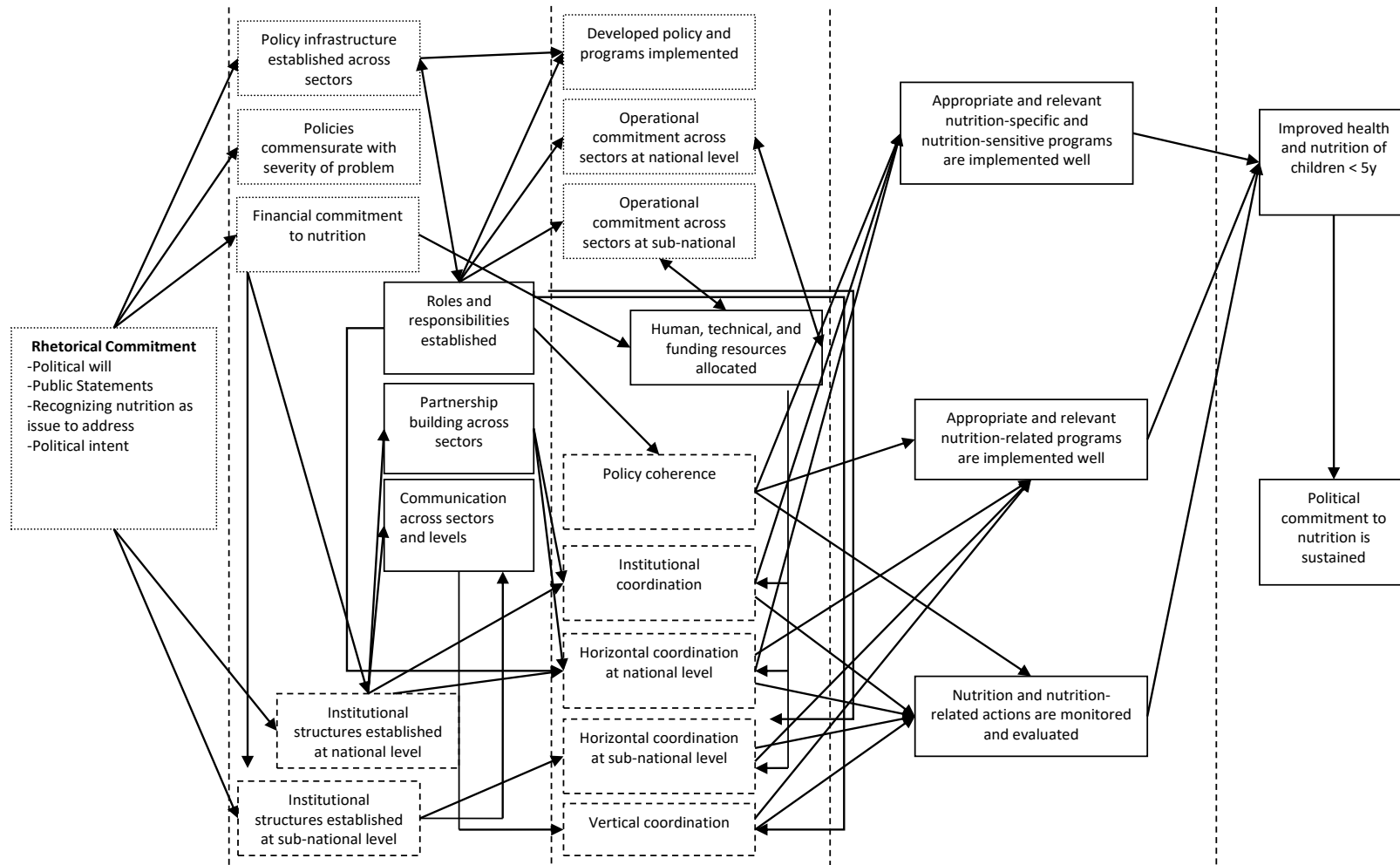
<b>Pre 2006</b>	<b>Post 2006</b>
National	National
Province (prefecture) (n=12)	Province (n=5)
Sub-province (sub-prefecture) (n=22)	-
Commune (n=154)	District (n=30)
Sector (n=1,544)	Sector (n=416)
Cell (n=9,104)	Cell (n=2,146)
Village (-)	Village (14,876)

Source: World Bank, 2015: Republic of Rwanda decentralization and community development project



Source: Rwanda Demographic Health Survey 2005, 2010, and 2014/15

**Figure 2.1: Trends in stunting in Rwanda 2005-2015**



**Figure 2.2: Logic model of the relationship between political commitment to and coherence in nutrition**

Dotted boxes represent forms of political commitment; Dashed lines represent coherence

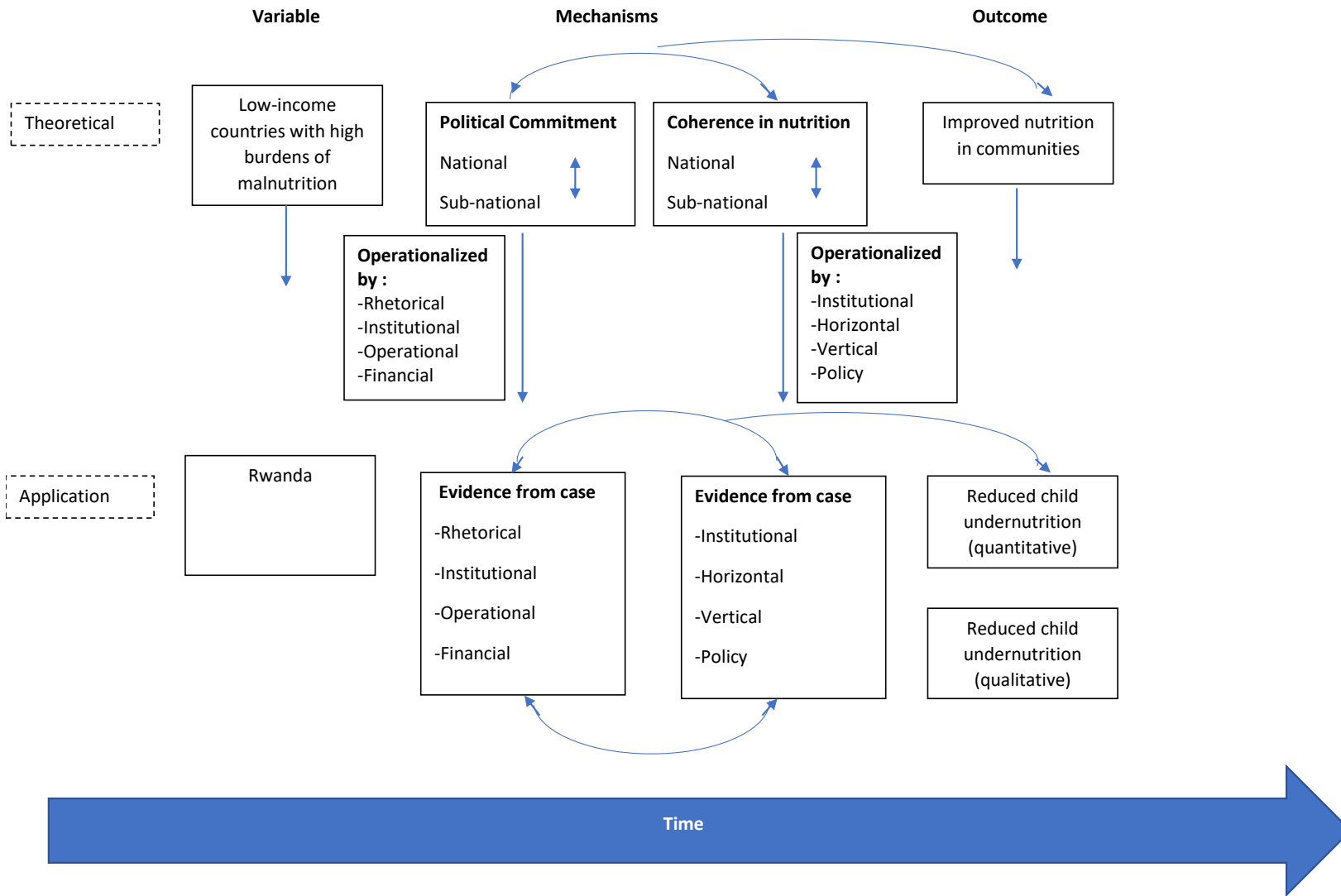


Figure 2.3: Conceptual Framework

### Chapter 3: Methods

This research is an in-depth case study that retrospectively investigates from multiple perspectives how Rwanda achieved progress reducing stunting. A constructivist methodology is used to examine how change occurred in Rwanda through the viewpoints of stakeholders working in different sectors that influence nutrition at the national and sub-national levels, including community members. A constructivist approach is grounded in the idea that individuals develop meaning from their own experiences and it is the role of the researcher to understand the multiple realities from the perspective of participants within a specific context (Bloomberg & Volpe, 2019).

This study uses multiple methods of data collection and multiple data sources to obtain an in-depth understanding of how change occurred in Rwanda. We conducted a policy review of nutrition and nutrition-related policies and programs and their evolution as well as primary data collection using interviews and focus group discussions (FGD). For primary data collection, we conducted key informant semi-structured interviews with stakeholders from the different sectors involved in nutrition at the national, district, and community levels and FGDs to understand how changes in nutrition occurred in Rwanda between 1992 and 2017.

This study is informed by the Stories of Change in Nutrition case studies led by the International Food Policy Research Institute (IFPRI) (Gillespie et al., 2017; Harris, Drimie, Roopnaraine, & Covic, 2017; Kampman, Zongrone, Rawat, & Becquey, 2017a; Warren & Frongillo, 2017b). Stories of Change in Nutrition are a series of case studies conducted in countries with high burdens of malnutrition but that have achieved progress in reducing undernutrition in order to document how countries have been able to achieve change (Gillespie et al., 2017). Previous case studies were conducted in Ethiopia, Bangladesh, Zambia, Nepal, Senegal, and Odisha State in India. The case study of Rwanda provides a new narrative to the Stories of Change studies.

### **3.1 Desk Review**

An initial desk review of nutrition-relevant policy and program documents in Rwanda was conducted in the spring of 2017 to inform research methods, data collection instruments, and to identify key stakeholders in Rwanda. This review included the 2005 and 2013 national nutrition policies and other program documents from Compact 2025 and the UN's Renewed Efforts Against Child Hunger and Undernutrition (REACH) (Compact 2025, 2016; Ministry of Health, 2005; NFNP, 2013; REACH, 2015) (MOH, 2005; Compact 2025, 2016; REACH, 2015). A second document review was conducted after the primary data collection to synthesize the general and nutrition policy context in Rwanda since the year 2000. This review consisted of government documents and national policies in economic development, governance, and sectors related to nutrition. These sectors were health, agriculture, education, social protection, gender, and water and sanitation. We also reviewed the mapping of nutrition

stakeholders in Rwanda and program documents and reports from development partners to review nutrition and nutrition-related programs implemented in the country. The purpose of this review was to understand how changes in policy, governance, and key moments in nutrition nationally and internationally may have contributed to nutritional change in Rwanda. The review also informed our understanding of if and how nutrition is integrated in different sectoral policies to assess coherence in nutrition across relevant sectors in Rwanda.

### **3.2 Sampling**

To understand how change in nutrition occurred in Rwanda, we purposively sampled for nutrition stakeholders at the national, district, and community levels. At each of these administrative levels, we purposively sampled for stakeholders that represent the different sectors that influence nutrition, including health, agriculture, education, and gender.

Because our goal was to understand how change occurred in the country of Rwanda, the semi-structured interviews conducted at the district and community level along with the FGDs conducted at community level were sampled from all five of Rwanda's provinces: North, South, East, West, and the City of Kigali (**Figure 3.1**). In each of the provinces, we purposively selected one district in which the stunting rate reduced (reduced district) and one in which it increased or was stagnant (non-reduced district) between the two most recent DHS surveys (2010 and 2014/2015), to assess what may be contributing to the differential reductions in stunting reduction (**Table 3.1**). Our sampling therefore consisted of 10 study districts. Within each of the selected districts,

two sectors (administrative level) with low socio-economic indicators (n=20) were selected to represent the community level. We selected these sectors based on the type of roof, wall, and energy used for lighting according to Rwanda's Fourth Population Housing Census (National Institute of Statistics of Rwanda & Ministry of Finance and Economic Planning, 2014). In total, the study sample consisted of 90 key informant semi-structured interviews and 40 FGDs.

### *3.2.1 National level semi-structured interviews*

At national level, we conducted a total of 32 semi-structured interviews with government and non-government stakeholders. We interviewed nutrition focal persons and ministry leaders (n=8) from five ministries involved in nutrition per Rwanda's National Food and Nutrition Policy 2013-2018 (NFNP). These ministries were the Ministry of Health, Ministry of Agriculture and Animal Resources, Ministry of Local Government, Ministry of Education, and Ministry of Gender and Family Promotion. We also conducted semi-structured interviews with non-government stakeholders from civil society (n=10) and donor, international, and non-government organizations (n=14). The organizations included were purposefully selected with in-country collaborators, the non-government organization SNV Rwanda, based on the organizations' involvement in nutrition in Rwanda. Snowball sampling was also used to identify additional respondents and organizations. Selected ministries and organizations identified their respective respondents based on who they believed was best positioned to participate in the interview given the study's aim.



To recruit government national level respondents for the study, SNV Rwanda sent a letter to the Permanent Secretaries of each ministry requesting permission to interview the nutrition focal person for said ministry. Once permission was granted to conduct the interviews, we reached out to the focal persons through email or phone to schedule a convenient time for an interview.

To recruit non-government national level respondents, SNV Rwanda sent letters or emails to the identified organizations introducing the study and requesting participation in the study. Because of SNV's relationship with other organizations in the country, some organizations and participants were recruited by phone. It was up to the organizations invited to participate in the study to identify the person or persons to partake in the study given the topic of the study and the selection criteria that respondents must have spent at least two years working in Rwanda.

### *3.2.2 District-level semi-structured interviews*

In Rwanda, the implementation of the food and nutrition policies is decentralized to the district level through the District Plans to Eliminate Malnutrition (DPEM) and its steering committee. These committees are led by the districts' 1) vice mayor of social affairs, 2) the director of health, 3) director of agriculture, 4) the district nutritionist, and include stakeholders from other ministries and development partners. In each of our study districts, we sampled for these four mid-level leaders based on their job position and as key actors in the implementation of DPEMs. In total, we conducted 38 semi-structured interviews, 20 in reduced districts and 18 in non-reduced districts.

To recruit these mid-level leaders, we requested an authorization letter from the Ministry of Local Government to allow us to interview these government officials. Once this letter was received, we emailed district mayors to inform them about the study, when we would travel to their districts, and asked them to help facilitate interviews with the sampled stakeholders. We also used the WhatsApp messaging application to reach district mayors and other district leaders to organize and schedule interviews.

### *3.2.3 Community-level semi-structured interviews and FGDs*

At the community level, we conducted 20 interviews with frontline workers who provide community services in health (community health workers) (n=10) and agriculture (agriculture extension workers) (n=10). We also conducted male (n=10) and female (n=10) community FGDs in both reduced and non-reduced districts for a total of 40 FGDs to gain community members' perspectives on nutrition and changes in nutrition. Each FGD consisted of 10 males or 10 females who worked in agriculture and at least a third of participants in each FGD had to have children under the age of five years.

To recruit participants, we worked with the Executive Director of the sector (administrative level) to identify frontline workers in agriculture and health. These frontline workers along with the sector Executive Director helped us to also identify the community members who participated in the FGDs. An incentive of bars of soaps were provided for FGD participants.

### 3.3 Data Collection

Separate study instruments were developed for the different types of respondents and FGDs, but they covered similar topics on the categories of political commitment to nutrition, coherence in nutrition, and changes in nutrition at community level (**Appendix A**). A two-week long training was conducted prior to data collection; the training covered topics on the study topic, context, the research process, qualitative methods, study instruments, and data handling and logistics of data collection. Data collectors were trained on the specific instruments they would work with during data collection. During this training, interview and FGD instruments, which had been previously translated by SNV Rwanda, were reviewed and finalized. Interview guides were further reviewed during data collection to change how certain questions were asked and to add questions based on themes that emerged during the data collection.

All data were collected between June and November 2017. Data collection involved the author (EI), a colleague from IFPRI (MVB), and a team of four data collectors (ON, CG, LN, and TH). All data collection was conducted in pairs unless a scheduling conflict required a pair to separate (n=10/90 or 11%). EI and MVB conducted interviews while their partners (TH and CG) took detailed notes. MVB and CG conducted semi-structured interviews at national level; EI and TH conducted interviews at both the national and district level. The remaining two data collectors (ON and LN) conducted interviews with frontline workers and FGDs at community level alternating between each other on who took notes and led an interview or FGD.

During data collection, interview respondents received a consent letter with the study's aim, intent, and the organizations involved in the study. If respondents agreed to participate in the study, they signed two consent letters, one of which remained with them and one that remained with the study team. FGD participants provided oral consent to participate in the study and selected one representative amongst themselves to provide signed consent on behalf of the group. One copy of the FGD consent form remained with the signee and another with the study team. All interviews and FGDs were audio recorded, with consent from respondents. When consent to audio-recording could not be obtained (n=9/90 or 10%), detailed notes were taken.

Given the multiple languages spoken in Rwanda, it was important for the study team to be multi-lingual. EI is fluent in English, French, and Kirundi/Kinyarwanda; MVB is fluent in English and French. Data collectors were fluent in Kinyarwanda, French, and/or English. Interviews at the national level were conducted in English, French, or Kirundi/Kinyarwanda based on respondent preference. Interviews conducted at the district and community level and FGDs were conducted in Kirundi/Kinyarwanda. All interviews were translated (when necessary) and transcribed into English by the note-takers present during interviews. CG also transcribed the community level semi-structured interviews although she was not the respective notetaker. Transcribing occurred concurrently with data collection. EI read and reviewed all transcriptions and provided feedback to transcribers if improvements were needed. In total, of the 90 interview transcriptions, 52 (58%) were verified along with audio by EI and MVB.

FGDs were translated and transcribed into French by ON and LN, given that they were more fluent in French than in English. EI verified four transcriptions with audio to provide feedback to ON and LN. EI reviewed all remaining FGD transcriptions by reading the full transcriptions.

### **3.4 Ethics**

This study received approval from the institutional review boards of the University of South Carolina, the International Food Policy Research Institute, and the Rwanda National Ethics Committee. The author also received certification for the completion of CITI's Human Research for Social and Behavioral Researchers in April of 2017.

### **3.5 Analysis: Manuscript 1**

Analysis for manuscript 1 used, first, an *a priori* coding list was developed based on the study instruments and the 5C's framework used in the Stories of Change in Nutrition case studies while also allowing for emergent coding. The 5C's framework examines the changes that occur and challenges that remain in Commitment, Coherence, and Community nutrition (Gillespie, 2015). Emergent coding was used to capture context-specific information. Open coding was conducted to break down the data into descriptive codes. Line-by-line coding was used, meaning that segments of texts could be coded into more than one code. This stage of open coding was conducted by EI and two other individuals. We held weekly meetings in the beginning to compare and harmonize coding and to review if additional codes needed to be created. Axial coding was used to organize and display the data into conceptual categories and themes.

Analysis was also informed by frameworks on political commitment to nutrition which were used to establish the different forms of political commitment that exist (Baker et al., 2018; Gillespie & Bold, 2017; Heaver, 2005a). For coherence, we adapted the Stories of Change in Nutrition definition of coherence and Garret and Natalicchio's (2011) working multisectorally framework to define the different forms of coherence: institutional, horizontal, and vertical coherence in Rwanda. The conceptual themes identified during the coding process were then mapped onto the political commitment and nutrition coherence frameworks to understand the changes that occurred in Rwanda and the challenges that remain.

Lastly, theory testing process tracing was used to understand the mechanisms that led to changes in undernutrition in Rwanda (Bennett & George, 2005; Lapping et al., 2012). In process tracing, causal mechanisms are different from causality, rather they are interacting parts that work together or one each other to produce an outcome (Beach, 2017). In this study, process tracing was conducted using the document review and multiple sources of collected primary data to gain case-specific information and understanding of the processes that led to changes in nutrition in Rwanda. Analysis looked at 1) what policy or strategy changes occurred, 2) what events and actions influenced these changes, and 3) how political commitment to and coherence in nutrition were operationalized in Rwanda.

### **3.6 Analysis: Manuscript 2**

While the strength of qualitative research is to answer process questions that helps us to understand meaning, context, or how things happen, qualitative research can also

help answer variance questions imbedded within prior process questions (Maxwell, 2013). Variance questions are those that ask about difference. Manuscript 2 consists of a variance goal to examine what may help to explain the differential change in stunting reduction between the reduced and non-reduced districts.

After the open, axial, and selective coding conducted for manuscript 1, we conducted a comparative analysis that used the two sets of districts, reduced and non-reduced districts, as the unit of analysis. After the coding stage of analyses, we described the themes that emerged from both the semi-structured interviews and the FGDs. We then conducted simple counts of the number of interviews or the number of FGDs from each set of districts who mentioned the described themes. If interview respondents or members of an FGD mentioned a theme multiple times, we counted it as a single mention. We took the total counts and calculated the percentage of respondents who mentioned each particular theme in each type of study district and took that as an indication of the relative salience of the idea in each respective study district (Hannah & Lautsch, 2011). We compared the percentage of mention across the reduced and non-reduced districts and scanned for patterns to identify similarities and differences between the two sets of districts (Miles, Huberman, & Saldana, 2014). A difference of 10 percentage points or more between the sets of study districts was used to select differences to highlight.

# RWANDA



Source : Rwanda 2014/2015 DHS

**Figure 3.1: Map of Rwanda**



**Table 3.1: Study district selection based on the change of stunting prevalence between 2010 and 2015**

Province	District	2010 %	2015 %	Change pp	Study Districts
City of Kigali	<b>Gasabo</b>	22.3	23.8	-1.5	Reduced
	Kicukiro	17	18.9	-1.9	
North <sup>1</sup>	<b>Nyarugenge</b>	28.7	28.3	0.4	Non-reduced
	Burera	42.9	52	-9.1	
	<b>Gakenke</b>	46	63.6	<b>-17.6</b>	
	Gicumbi	36.6	46.6	-10	
	<b>Musanze</b>	37.8	45.3	<b>-7.5</b>	
	Rulindo	33.8	42.9	-9.1	
South	<b>Gisagara</b>	37.5	47.6	<b>-10.1</b>	Reduced
	Huye	42.6	45	-2.4	
	Kamonyi	36.6	45.3	-8.7	
	Muhanga	41.6	46.7	-5.1	
	Nyamagabe	51.8	53.5	-1.7	
	Nyanza	33.3	26.4	6.9	
	Nyaruguru	41.7	45.4	-3.7	
	<b>Ruhango</b>	41.1	20.7	<b>20.4</b>	
	<b>Bugesera</b>	39.4	38	<b>1.4</b>	
	Gatsibo	31.7	51.5	-19.8	
East	Kayonza	42.4	44.5	-2.1	Reduced
	<b>Kirehe</b>	29.4	50.7	<b>-21.3</b>	
	Ngoma	40.9	50.2	-9.3	
	Nyagatare	36.8	42.2	-5.4	
	Rwamagana	25.3	29.2	-3.9	
	Karongi	49.1	56.7	-7.6	
	Ngororero	55.5	53.4	2.1	
	<b>Nyabihu</b>	59	51.5	<b>7.5</b>	
	Nyamasheke	34	33.2	0.8	
	Rubavu	46.3	54.9	-8.6	
West	Rusizi	34.7	40.9	-6.2	Non-reduced
	<b>Rutsiro</b>	45.8	60.3	<b>-14.5</b>	

Source: 2010 and 2015 Rwanda DHS; <sup>1</sup> All the districts in the North province reduced stunting between 2010 and 2015. Reductions ranges from -7.5 to -17.6pp change. For this province, we selected the district with the lowest stunting reduction as the non-reduced district.

## Chapter 4: Document Review

### 4.1 Nutrition policies

Rwanda's first national nutrition policy was written under the Ministry of Health in 2007 by the nutrition division within the Ministry of Health's Maternal and Child Health unit (NFNP, 2013). The policy's mission was to provide an environment conducive to the implementation of interventions that could "guarantee the nutritional well-being of the entire population for the sustainable development of Rwanda (Ministry of Health, 2005, p.18)." The policy addressed nutrition through the implementation of mostly nutrition-specific programs and interventions such as 1) growth monitoring promotion accompanied with immunization of children, 2) treatment of severe acute malnutrition, 3) IYCF counseling during ANC visits, 4) Vitamin A supplementation during mass campaigns twice a year for children 0-59m and post-partum women, and 5) a national mandate to import and/or sell iodized salt (Ministry of Health, 2005). The policy also aimed to increase the provision of services to promote optimal infant and young child feeding practices, community nutrition sensitization, and behavior change communication at national, district, and community level.

The policy acknowledged that nutrition at the time lacked sufficient political and financial commitment to nutrition and identified political commitment as a key strategic

goal of the new policy. It also identified shortcomings in addressing the underlying determinants of undernutrition such as food security at household and community level, in part due to a lack of synergy and nutrition integration in other sectoral plans. Although it identified these shortcoming, the policy did not clearly identify how it could improve collaboration across sectors. For example, although the policy described the role that different ministries play in nutrition, it was described in a generic way that failed to identify how nutrition would be integrated into those sectors. The policy was, however, aligned with the Health Sector Policy framework, the country's Vision 2020 strategy, and the poverty reduction strategy.

The second national nutrition policy in Rwanda was adopted six years after the first policy and was called the National Food and Nutrition Policy 2013-2018 (NFNP). The NFNP also placed emphasis on implementing programs that target women and children during the first 1,000 days and on reducing stunting compared to the 2007 policy.

Unlike the first policy, the NFNP was not developed as a ministry of health policy but rather as a multisectoral policy that was co-owned by the Ministry of Health, Ministry of Agriculture, and Ministry of Local Government because of these ministries' role in the successful implementation of the policy (NFNP, 2013). This co-ownership across multiple sectors represented a shift away from a health-centered strategy for nutrition towards a multisectoral strategy. In addition to the three leading ministries, the policy identified four key ministries central to making improvements in nutrition and assigned them to one or more of the policy's strategic objectives, which included addressing food security, social protection, and classroom education. These ministries were: Ministry of

Education, Ministry of Gender and Family Promotion, Ministry of Infrastructure, and the Ministry of Disaster Management and Refugees. The policy also places strong emphasis on coordinating with local government on the planning, implementation, and monitoring of nutrition interventions.

To understand the NFNP's shift towards multisectoral nutrition and improving coherence in nutrition across sectors and administrative levels, it is important to understand the contextual changes that were occurring both in Rwanda and internationally. Since the year 2000, Rwanda had embarked on major social and political changes to reconstruct the country after the 1994 genocide and move it toward its long term goal to become a country with a healthier, more educated, and better off population.

#### **4.2 Policy coherence to Vision 2020 and the National Decentralization Policy**

Rwanda's long-term economic development strategy, Vision 2020, established in the year 2000, reflected Rwanda's intent to rebuild the country and achieve high economic development. Rwanda also had medium-term economic development strategies that were reflected in the Poverty Reduction Strategy Paper and its succeeding strategy the Economic Development and Poverty Reduction Strategy II (EDPRS II). All national and sectoral policies and plans were developed in alignment to Vision 2020 goals. One of the Vision's six pillars included human resource development, which centered on achieving improvements in education and health. The human resource development pillar identified goals to reduce child and maternal mortality rates, increasing life expectancy rate, decreasing HIV/AIDS rates, and improving access to water but it did not identify

nutrition as a key development goal. The strategy did identify child malnutrition as a key indicator to track progress towards achieving Vision 2020 goals but the indicator, called “percent of child malnutrition”, was not clear what it would actually measure. The country’s National Decentralization Policy was another key strategy in Rwanda that devolved certain responsibilities and functions, including the coordination and implementation of programs across sectors, to the local government (RGB, 2018; World Bank, 2015).

A review of the policies and strategic plans across the key ministries that influence nutrition since the year 2000, showed that these documents were mainly aligned to Vision 2020, Millennium Development Goals, and the National Decentralization Policy.

#### **4.3 Shift to prioritizing nutrition**

Sectoral policies in education, agriculture, infrastructure, and gender and family promotion developed between the year 2000 to 2007 did not mention nutrition as a key goal of these sectors or as an issue these sectors influence (**Table 4.1**). The Health sector Policy developed in 2005, however, discussed its role in reducing undernutrition through nutrition-specific programs such community growth monitoring, acute malnutrition management, and addressing vitamin A and iron deficiency. After 2008, a shift was observed towards making nutrition a priority and a goal to be addressed across sectoral policies and strategies. For example, in 2008 the education sector identified the association between women’s education and improved maternal and child nutrition as one of the reasons its Girls Education Policy was important (MINEDUC, 2008). In 2010, policies in the gender began to describe the role they could play in nutrition-relevant

interventions and the health sector strengthened discussions around working with other sectors to address the different determinants of malnutrition. By 2012, the revised Vision 2020 policy recognized nutrition as a key issue to address in order to achieve the second pillar of its six pillars: human resource development. The updated Vision 2020 strategy recognized the improvements achieved within the health sector but reported that the policy could not achieve its human resource development goals without adequately addressing undernutrition (Republic of Rwanda, 2012).

By the year 2013, sectoral policies or strategic plans in agriculture, social protections, health increasingly discussed their role and potential contributions to improving undernutrition in the country. The infrastructure sector, however, which works on water and sanitation did not identify the contribution of its sector to nutrition until its 2016 National Water Supply Policy.

The shift towards nutrition prioritization and multisectoral strategies in Rwanda began in 2009 and they occurred in line with international developments in nutrition. Just three years prior to 2009, the World Bank presented its repositioning statement that nutrition is central to economic and social development (World Bank, 2006). In 2008, the Copenhagen Consensus concluded that some of the most cost-effective solutions to confront global challenges and improve global welfare were in nutrition and the Lancet published its influential Maternal and Child Nutrition series which highlighted the global burden of malnutrition, its long-term economic consequences, and the need for preventive methods in the critical period of the first 1,000 days (Black et al., 2008; Copenhagen Consensus Center, 2008; Victora et al., 2008). The clear framing of the

different international events on the importance of addressing undernutrition to promote health, economic, and developmental outcomes aligned well with Rwanda's Vision 2020 economic development goals to improve health and human resource development in order to transform the country into a middle income country.

After 2008, Rwanda strengthened its efforts to address undernutrition as a key national goal as shown through national events, policy development, established nutrition institutions, and the attention nutrition and nutrition-related studies received (**Table 4.2**). In 2009, the President of Rwanda called for the country to strengthen its efforts towards reducing undernutrition during a trip to the Kirehe district in what became known as the Presidential Initiative to Eliminate Malnutrition. The call resulted in a national screening for acute malnutrition (MIGEPROF, 2018). During this same year, the country's first national nutrition summit was conducted and encouraged the country to also invest in preventive strategies for reducing undernutrition. The following year, the government adopted a National multi-sectoral Strategic Plan to Eliminate Malnutrition (NmSEM 2010) (MIGEPROF, 2018).

Rwanda held its second national nutrition summit in 2011 which emphasized multisector collaboration in planning and implementing interventions and decentralized ownership (MIGEPROF, 2018). Post this summit, Rwanda committed to establishing institutional platforms to address nutrition. First, Rwanda became a member of the Scaling Up Nutrition Movement in 2011. That same year, in accordance with its decentralization policies, the implementation of the country's nutrition strategies were decentralized to the district level through the District Plans to Eliminate Malnutrition

(DPEM) where all of the country's 30 districts would annually plan, implement, and monitor their nutrition and nutrition-related activities. At the national level, the ministries that influence nutrition, through the Social Cluster Ministries, established an annual Joint Action Plan to Eliminate Malnutrition (JAPEM) to coordinate nutrition actions across their sectors in 2012.

The country's move towards multisectoral strategies were then reinforced by the 2013 NFNP and its strategic plan. In 2016, Rwanda established the National Food and Nutrition Coordination Secretariat to facilitate national coordination and monitoring for nutrition actions across all the different ministries and partners working in nutrition in Rwanda.

#### **4.4 Policy coherence to nutrition**

The policy commitment to addressing undernutrition has increased in Rwanda as evidenced by the adoption of the multisectoral NFNP and the inclusion of nutrition challenges in sectoral policies. The integration of nutrition in these policies can be strengthened, however in sectors such as social protection, gender, and water and sanitation.



**Table 4.1: Policies and strategic plans in in nutrition-relevant sectors since 2000<sup>1</sup>**

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
National Development	Vision 2020	2000	Rwanda's primary and long-term socio-economic development policy	No	Unclear	National and sectorial policies aligned to this policy
	National Decentralization Policy 2001	2001	To reform public sector governance by improving service delivery efficiency and local participation in development	No	No	Established administrative responsibilities across sectors at the different administrative levels
	Vision 2020 Revised	2012	Updated Vision 2020	Yes	-Stunting -Underweight -Wasting	National and sectorial policies aligned to this policy
	Economic Development and Poverty Reduction Strategy II	2013	Mid-term economic development strategy	Yes	Maize and beans existing as food reserve	National and sectorial policies aligned to this policy

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Nutrition	National Nutrition policy  *Lead sector(s): Health	2005	To provide a favorable environment for the effective implementation of nutrition interventions that guarantee nutritional well-being for entire population	Yes	-Stunting -Underweight -Wasting -Child/Women anemia -Goiter - proportion of women EBF -Child/mother Vitamin A deficiency	Policy aligned with 2005 Health Sector Policy, the MDGS, Vision 2020, and Poverty Reduction Strategy Paper
	National Food and Nutrition Policy  *Lead sector(s): Health, Local Government, and Agriculture	2013	To implement food and nutrition strategies for the well-being of the population, especially pregnant and lactating women & children under two	Yes	-Stunting -Underweight -Wasting -Child/women's anemia -Goiter - proportion of women EBF -Child/mother Vitamin A deficiency	Linked to Vision 2020, EDPRS 2; and policies in health, agriculture, education, social protection, gender, WASH, and disaster management

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Health	Health Sector Policy	2005	Overall vision of development in the health sector, taking account of changes in the institutional environment resulting from national decentralization policy	Yes	No	Mentions the need to coordinate across sectors but not specific
	Health Sector Strategic Plan II (2009-2012)	2009	To improve the health of people, through coordinated interventions by all stakeholders at all level and contributing to the reduction of poverty.	Yes	- Mortality ratio mothers/infant /children <5 y - Infant mortality ratio in poorest quintile - % of pregnant women with four ANC visits - % of deliveries in a health facility	Discusses implementation across administrative levels

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Health (cont'd)	National Community Based Nutrition Protocol	2010	To support and provide guidance on the implementation of a minimum package of community-based activities, particularly in health, nutrition, hygiene and sanitation to reduce malnutrition.	Yes	- Stunting - % of fully immunized children -Stunting -Underweight -Wasting -Women's BMI -Child anemia -Women anemia -Vitamin A deficiency -Iodine deficiency -Overweight and obesity	Describes multi-sector committees to eliminate malnutrition from central to village level
	Health Sector Strategic Plan III (2013-2018)	2013	To improve the health of all the people in Rwanda, through coordinated interventions by all	Yes	-Maternal mortality Ratio -% of pregnant women with four ANC visits	Discusses participation in JAPEM, DPEDs, and coordinating with social

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
			stakeholders at all levels, thereby enhancing general well-being of the population and reducing poverty		-% of deliveries in a health facility -Infant and children <5 y mortality ratio -Infant mortality ratio in poorest quintile - Stunting - % of fully immunized children -% of < 5 with diarrhea in last 2 weeks -% Community Health Clubs -% Villages with functional -Community Hygiene Clubs	protection sector on ECD programming

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Health (cont'd)	Health sector Policy	2015	To ensure universal accessibility (in geographic and financial terms) of equitable and affordable quality health services (preventative, curative, rehabilitative and health promotion services)	Yes	No	Mentions that coordination with sectors such as agriculture, education, social protection needs to be strengthened in the fight against malnutrition
	National Community Health Policy	2015	To provide holistic community health care to reduce infant, child, maternal mortality rates, improve population health, and contribute to sustainable economic development	Yes	No	Not discussed

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Education	Nine Years Basic Education	2008	To expand access to education through nine years of free compulsory education for all Rwanda children	No	No	No
60	Girls' Education Policy	2008	To promote an education system where all children (girls and boys) have equal access to quality education.	No	No	Aligned with Vision 2020, Poverty Reduction Strategy, Education policy, Decentralization policy, and MDGs

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Education (cont'd)	National School Health Policy	2014	To address the health related challenges that affect children, their school attendance, and ability to concentrate, learn, retain information, and complete school	Yes	No	Mentions coordination through a Working Group at national level
Local government/ Social Protection	National Social Protection Strategy	2011	To ensure that poor and vulnerable people are guaranteed a minimum income and access to core public services to escape poverty	No	No	Talks about integrating social protection with other sectoral programs but isn't specific



Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Local government/ Social Protection (cont'd)	Social Protection Strategy (2013-2018)	2013	To establish a social protection system that tackles poverty, inequality and vulnerability, and improves access to essential services and social insurance	Yes	-% of children < 5y in lowest socio-economic class (Ubudehe 1 and 2) who are stunted -% of children 6-23 months in bottom two quintiles who are fed in line with minimum standards	Coordination occurs through a social protection sector working group at national level and Joint Action Development Forum at decentralized levels. Increased collaboration with other ministries towards the shared objective, but not specific.

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Agriculture	Strategic Plan for Agriculture Transformation III 2013-2017	2013	To transform Rwandan agriculture from a subsistence sector to a market-oriented, value creating sector through increased production and commercialization, in order to increase rural incomes and reduce poverty.	Yes	-N children in cup of milk program -% of rural HH with kitchen gardens, by sex of head of HH -% of HH with acceptable food consumption score (FCS) -% of food insecure HH+ that consume biofortified foods -% of HH with poor and border-line FCS in lean season -MT of maize and beans existing as food reserve	Aligned with Vision 2020. Discusses how to work with other ministries on BCC messages to complement programs and the importance of collaborating with district levels since they have the responsibility to deliver programs and to interact with local farmers

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Agriculture (cont'd)	Strategic Plan for Agriculture Transformation 2018-2024	2018	To transform the agriculture sector from a subsistence to a value creating sector that contributes to the national economy and ensures food and nutrition security. Described agriculture's role to food security and nutrition with respect to accessibility, stability, and use, diversity, and access to easily available sources of protein	Yes	-Stunting -% of food-insecure HH -% of children with minimum acceptable diet - % of HH that consume adequate micro-nutrient food -% of farm HH that produce micronutrient rich foods year-round	Ministry goal to improve the enabling environment, including 1) strengthening sector coordination (horizontal) and 2) enhancing the effectiveness and efficiency of service deliver with decentralized administration. Mentions JADF but not DPEMs

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Gender	Politique Nationale de Promotion de la Famille (National Family Promotion Policy)	2005	To protect the family, especially women and children, to support the socio-economic development of the family and the country	No	No	
	National Gender Policy	2010	To provide guidelines on which sectoral policies and programs should use to integrate gender issues in their respective planning and programming.	No	No	Policy aligns with Vision 2020, EDPRS, and national decentralization policy.

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Gender (cont'd)	National Early Childhood Development Policy Strategic Plan 2016-2021	2016	To enhance human skills and knowledge development by implementing interventions that support ECD	Yes	-Stunting -Maternal mortality rate -Child mortality rate	Links the ECD policy to other policies. ECD programs should be integrated with health, nutrition, social protection, WASH programs but isn't specific.
Infrastructure	National Policy and Strategy for Water Supply and Sanitation Services	2010	To ensure sustainable and affordable access to water, sanitation & waste management, as a contribution to poverty reduction, public health, development and environmental protection.	Yes	-Access to improved source of water within 500m or 200 m in rural and urban areas, respectively -access to basic sanitation	Policy aligned to Vision 2020, EDPRS 2, MDGs

Sector	Policy name	Year	Policy goal	Nutrition and nutrition-related interventions mentioned	Nutrition and nutrition-related indicators mentioned	Policy coherence
Infrastructure (cont'd)	Water and Sanitation Sector Strategic Plan	2013	To ensure access to safe water, sanitation & waste management. Recognized the importance of sanitation and hygiene for health	Yes	-Access to improved source of water within 500m (rural) or 200m (urban) -access to basic sanitation	
	National Water Supply Policy and Implementation Strategy	2016	Ensure sustainable and affordable access to safe drinking water as a contribution to improving public health, socio-economic development, malnutrition, and child development	Yes	-Access to improved source of water within 500m or 200 m in rural and urban areas, respectively -access to basic sanitation	Policy aligned with Vision 2020, EDPRS 2, Health Policy. Mentions the need to provide an integrated package of services that address WASH

<sup>1</sup> Blue boxes highlight where nutrition is mentioned as a sectoral role or issue that is addressed by the sector; \*Policy mentioned but unable to find document

**Table 4.2: Key international and national moments in nutrition**

Year	International Nutrition Events	National Nutrition Events
2000	· MDGs established	
2001		
2002		
2003	· Lancet Child Survival Series	
2004		
2005		
2006	· World Bank repositioning statement	
2007	· Rwanda signs onto CADDP	· First national nutrition policy established
2008	· Copenhagen Consensus 2008 · First Lancet Maternal and Child Nutrition series	
2009		· President's trip to Kirehe · 1 <sup>st</sup> National Nutrition Summit
2010	· SUN Movement established	· Rwanda DHS 2010 conducted · National Multisector Strategy to Eliminate Malnutrition (NmSEM)
2011		· 2 <sup>nd</sup> National Nutrition Summit · Rwanda joins SUN · DPEMs established
2012		· JAPEM established
2013	· Second Lancet series on undernutrition	· Cost of Hunger Report · National Food and Nutrition Policy 2013-2018
2014		
2015	· SDG established	· Rwanda DHS 2015
2016		· Nutrition Secretariat established
2017		

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## Chapter 5: Manuscript 1

**Translating national political commitment and coherence in nutrition to sub-national levels is a pathway of change in the reduction of undernutrition in Rwanda<sup>2</sup>**

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<sup>2</sup> Iruhiriye, E., Olney, D.K., Frongillo, E.A., Niyongira, E., Nanama, S., Blake, C. To be submitted to *Food Security*.



## 5.1 Abstract

**Background:** Efforts to understand the experiences of countries that successfully reduce child undernutrition have increased over the years to understand how change can occur in various contexts and what could be done to achieve greater impacts on nutrition.

**Objective:** This study examines the relationship between improvements in nutrition in Rwanda over the last 25 years (1992-2017) and political commitment to nutrition and nutrition coherence across the sectors and administrative levels involved in nutrition policy implementation.

**Methods:** We conducted a document review to synthesize the evolution of nutrition and nutrition-related policies and programs in Rwanda since the year 2000. We complemented this data with 90 in-depth semi-structured interviews with national (n=32), mid-level (n=38), and community (n=20) actors from the sectors involved in implementing Rwanda's nutrition policy and 40 focus group discussions with community members. Interviews focused on topics related to changes in nutrition, the nutrition policy environment, political commitment, and coherence in nutrition. Responses were coded according to these themes and analyzed along changes in the policy environment.

**Results:** Over the past 25 years, Rwanda experienced increased political and institutional commitment to nutrition at the national and sub-national level as indicated by the adoption of a multisectoral nutrition policy that was reinforced with horizontal coordination platforms at national and sub-national levels. Respondents believed that improved leadership and decentralization helped to facilitate this increased political

commitment to nutrition, nutrition coherence, and subsequent improvements in nutrition outcomes such as stunting reduction. Specifically, respondents believed that the role of mid-level actors in nutrition augmented due to increased nutrition awareness and the roles of the decentralized levels in planning, managing, and monitoring nutrition programs and services. Vertical coordination across administrative levels was facilitated through improved communication, staff working on nutrition at different levels, and relationships between actors. Although respondents overall highlighted many successes in Rwanda, there were variations in perceptions and implementation at the sub-national level. Challenges also remain in coordination, financial commitment, and capacity in nutrition and nutrition monitoring.

Conclusions: Developing political commitment to nutrition at national level is important to sustain the priority placed on addressing nutrition but it should also be translated to sub-national levels where implementation occurs through the commitment of mid-level actors. Establishing coordination platforms, also at national and sub-national levels, helped turn political commitment into operational and institutional commitment to promote coherence across sectors and administrative levels in addressing nutrition in a multisectoral way.

## **5.2 Introduction**

Despite improvements globally, undernutrition remains highly prevalent and a global challenge, with Africa and Asia bearing the greatest burden of stunting and wasting (WHO, UNICEF, & World Bank, 2019). Given undernutrition's high prevalence and human and economic costs to populations, countries, and development overall,

increased attention on what countries can do to reduce undernutrition has emerged (Black et al., 2013; Caulfield, De Onis, Blössner, & Black, 2004; Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Victora et al., 2008). This increased attention has reinforced the need to address nutrition in a multisectoral manner by engaging the different sectors that influence nutrition through policy and programs and the need to address determinants such as leadership, horizontal and vertical coordination, and capacity that make up the enabling environment for nutrition (Black et al., 2013; Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Ruel & Alderman, 2013).

Addressing the enabling environment recognizes that to reduce undernutrition, efforts must go beyond the biological, epidemiological, and public health aspects of nutrition because improvements in the immediate and underlying determinants of undernutrition or economic growth alone do not always translate into improved nutritional status, especially in child stunting (Mejía Acosta & Haddad, 2014; Menon et al., 2011). Rather, the complex political, policy, and operational domains that affect how countries address nutrition must also be considered (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Lapping et al., 2012; Pelletier et al., 2012).

The experiences of countries that have successfully reduced child stunting show that several interlinked political, policy, and institutional processes fostered changes in nutrition programming and eventually in nutritional status. One example is political commitment to nutrition. Political commitment to nutrition is the intent and reflection of that intent through policy, processes, resources, and sustained actions over time to improve nutrition (Baker et al., 2018; Development Initiatives, 2017; Gillespie & Bold,

2017; Heaver, 2005; D. J. H. T. E. Lintelo & Lakshman, 2015). Countries with high political commitment to nutrition have been able to generate the political attention needed to prioritize nutrition, place it on the political agenda, and lead to policy formulation and adoption (Heaver, 2005; Hoey & Pelletier, 2011; Pelletier et al., 2012). Countries, however, face greater challenges transforming this prioritization into other forms of political commitment such as the institutional, operational, or systematic forms that can sustain the priority placed on nutrition through concrete actions and effective implementation (Gillespie & Bold, 2017; Heaver, 2005).

Countries also face challenges translating political commitment observed in actors at national level to mid-level actors who oversee the coordination and implementation of nutrition and nutrition-related actions at sub-national level (Baker et al., 2018; Heaver, 2005). The commitment and role of mid-level actors in the implementation of multisectoral nutrition policies is especially important as they must work horizontally across sectors at the sub-national level and interact both with policy actors at the national level and service and program deliverers at sub-national levels. Experiences from countries such as Bolivia show that although political commitment to nutrition at the national level were high and institutional structures were established in two of its nine sub-national levels (the departmental level) to address nutrition across sectors, the failure to generate political commitment to nutrition in mid-level actors and conflict across sectors impeded the implementation of these structures and led to their dissolution (Hoey & Pelletier, 2011).

Coherence in nutrition occurs when political commitment to nutrition is converted into a system that has institutional structures and processes to coordinate nutrition policy implementation in a mutually reinforcing manner (Gillespie & Bold, 2017). Given that countries increasingly have multisectoral nutrition policies that bring together different sectors, coherence in nutrition consists of the coordination and consistency of actions across the institutions (institutional coherence), sectors (horizontal coherence), administrative levels in the chain from policy to implementation (vertical coherence), and actors working to address nutrition (Garrett & Natalicchio, 2011). Research has, however, mostly focused on political commitment to and coherence in nutrition at the national level, focusing on the establishment of national nutrition coordination bodies and coordination across national ministries (Garrett & Natalicchio, 2011; Gillespie & Bold, 2017; Kampman, Zongrone, Rawat, & Becquey, 2017b; Mejía Acosta & Fanzo, 2012). The few studies that have looked at the experiences of mid-level actors have found that these actors perceive there to be low nutrition awareness and perception of nutrition responsibility outside of the health sector, weak horizontal coherence among sectors, low capacity, and insufficient resources to address nutrition at the sub-national level (Kennedy et al., 2015; Warren & Frongillo, 2017).

The aim of this study was to examine how Rwanda achieved progress reducing undernutrition nationally through the role of political commitment to nutrition and nutrition coherence from the perspective of national, mid-level, and community actors in Rwanda. Although Rwanda has faced many political and social challenges over the years, including the 1994 genocide against Tutsis, the country has made great efforts to

rebuild and restructure following this tragedy. Over the last two decades, Rwanda has seen significant improvements in children's nutrition. Between 2005 and 2015, the prevalence of stunting among children under 5 y of age fell from 52% to 38%, wasting was nearly eliminated, and anemia among children 6-59 months of age decreased from 50% to 36% (NISR et al., 2015). This paper uses previously established theoretical frameworks of political commitment to nutrition and coherence to understand how commitment and coherence contributed to the nutritional improvements observed in the country.

### **5.3 Methods**

#### *5.3.1. Context*

Rwanda adopted a national decentralization policy in 2001 to reform its public sector governance by improving the efficiency of service delivery and empowering local populations to partake in local development. The policy also focused on enhancing transparency and accountability of local governments to local as the country reconstructed post the genocide (Kauzya, 2007; Ministry of Local Government, 2001). To achieve this, the policy devolved responsibilities and functions to lower levels of government and restructured and condensed its administrative structure in 2006.

Previously divided into 12 provinces and over 150 districts (referred to as communes), Rwanda is today made up of five provinces that together consist of 30 districts (**Table 5.1**). Districts are further divided into the administrative units of sectors, cells, and villages that all report to the district level. Districts are led by a mayor and two vice mayors, one of economic affairs and another of social affairs, and are responsible of

coordinating planning, financing, and overseeing the implementation of the majority of public services, including health, education, and agriculture (RGB, 2018; World Bank, 2015). Districts are financed through both locally generated revenues such as property taxation, trading licenses, or land rent and intergovernmental transfers from the central national government. While the amount of locally generated revenue has increased over the years, from 49 billion Rwandan Francs in 2006 to 440 billion Rwandan Francs in 2017/18, this amount only makes up 10 to 15% of district financing (RGB, 2018). An overwhelming majority of district funds continue to come from the national government.

Planning at the district level is divided into medium-term five-year district development plans (DDPs) and yearly action plans. These plans translate national policies from the central government into actions that address the local needs of each district. The delivery of basic services and reporting are conducted at the sector level of the administrative structure, which is led by an executive secretary and committee. The cell units, also led by a secretariat of district staff, is responsible for conducting community mobilization and needs assessments and prioritizations (World Bank, 2015). The village, though not considered a formal administrative unit, is led by an executive committee of elected village leaders.

### *5.3.2 Study design*

This study included a document review as well as primary data collection. For the document review, we reviewed documents related to nutrition and nutrition-related policies and programs in Rwanda and their evolution. In addition, we conducted key

informant semi-structured interviews with stakeholders from the different sectors involved in nutrition at the national, district, and community levels to understand how and why changes in nutrition occurred in Rwanda between 1992 and 2017.

### *5.3.3 Document review*

A document review was conducted to synthesize information on nutrition and nutrition-related policies and programs in Rwanda covering the years since 2000. The purpose of this review was to understand changes in policy, governance, policy factors, and key moments in nutrition that occurred in Rwanda. The review assessed if and how nutrition has been integrated in national policies and strategic plans in governance and sectors related to nutrition such as health, agriculture, gender to evaluate policy coherence in nutrition. The review also consisted of reviewing program documents and reports from development partners and government documents to identify the key nutrition and nutrition-related programs in the country.

### *5.3.4 Sample for interviews and focus group discussions*

We conducted the district and community level interviews in all five of Rwanda's provinces: North, South, East, West, and the City of Kigali. In each of the provinces, we purposively selected one district with the highest stunting reduction rate (reduced district) and the district with the highest stunting rate increase or stagnation (non-reduced district) between the two most recent DHS surveys (2010 and 2014/2015), for a total of 10 study districts (**Table 5.2**). Within each of the selected districts, two sectors with low and middle socio-economic indicators (n=20) based on the type of roof, wall, and energy used for lighting according to Rwanda's Fourth Population Housing Census



(National Institute of Statistics of Rwanda & Ministry of Finance and Economic Planning, 2014). The sectors were selected to represent where community level interviews would be conducted.

Our study sample consisted of 90 key informant semi-structured interviews and 40 focus group discussions (FGD) (**Table 5.3**). At national level, we conducted 32 semi-structured interviews with government stakeholders (technical staff and ministry leaders) from the different ministries involved in nutrition (n=8) (e.g., health, agriculture, gender, education) per Rwanda's National Food and Nutrition Policy 2013-2018 (NFNP) and non-government stakeholders from civil society (n=10) and donor, international, and non-government organizations (n=14). The organizations included were purposefully selected with our in-country collaborators based on the organizations' involvement in nutrition in Rwanda. Snowball sampling was also used to identify additional respondents and organizations. Selected ministries and organizations identified their respective respondents based on who they believed was best positioned to participate in the interview given the study's aim.

At the district level, we conducted 38 semi-structured interviews, 20 in reduced districts and 18 in non-reduced districts. District-level respondents were mid-level actors from the health, agriculture, local government, and nutrition sectors involved in the coordination and implementation of nutrition and nutrition-related activities. Respondents, selected based on their job position, represented vice mayors of social affairs, directors of health, directors of agriculture, and district nutritionists.

At the community level, we conducted 20 interviews with frontline workers who provide community services in health (community health workers) and agriculture (agriculture extension workers). We also conducted 20 community FGDs (10 male and 10 female) in both reduced and non-reduced districts to gain community members' perspectives on nutrition, changes in nutrition, and contributors to changes in nutrition. FGDs consisted of 10 males or 10 females who worked in agriculture and at least a third of participants had to have children under the age of five years.

#### *5.3.5 Data collection*

All data were collected between June and November 2017. Separate interview guides were developed for the different types of respondents and FGDs, but they covered similar topics (**Appendix A**). Interview respondents received a letter with the study's aim, intent, and the organizations involved in the study, and gave signed consent to participate in the study. FGD participants provided oral consent to participate and selected one representative to provide signed consent on behalf of the group.

Interviews at the national and district levels were conducted by the lead author and a colleague. Frontline worker interviews and FGDs were conducted by trained data collectors. All interviews and FGDs were audio recorded, with consent from respondents. When consent to audio-recorded was not given (n=9 or 10% for key informant interviews; n=0 for FGDs), detailed notes were taken. Interviews at the national level were conducted in English, French (n=1), or Kirundi/Kinyarwanda based on respondent preference. Interviews conducted at the district and community level

and FGDs were conducted in Kirundi/Kinyarwanda. Interviews were translated and transcribed into English and FGDs into French.

This study received approval from the institutional review boards of the University of South Carolina, the International Food Policy Research Institute, and the Rwanda National Ethics Committee.

### 5.3.6 Data analysis

Data analysis was informed by the 5C's framework developed by the Stories of Change in Nutrition case studies, of which this study was guided by (Gillespie & van den Bold, 2017). The 5C's framework (changes, challenges, commitment, coherence, and community) examines changes in commitment, coherence, and community in relation to improvements in undernutrition and the challenges that remain in these categories in different contexts (Gillespie, 2015). For this paper, focus is placed on commitment and coherence.

To analyze the data, an *a priori* coding list was first developed based on the study instruments, community nutrition, and the categories of commitment and coherence. Transcripts were coded using this *a priori* coding list but allowing for emerging codes. Axial coding was then used to organize codes into conceptual themes. The conceptual themes identified during the coding process were then mapped onto political commitment and nutrition coherence frameworks to characterize changes in the different forms of political commitment and coherence that occurred in Rwanda and the challenges that remain. For political commitment to nutrition, we drew from the framing in Stories of Change in Nutrition (Gillespie & Bold, 2017), Heaver (2005), and

Baker and colleagues (2018) to identify four forms of commitment to examine: rhetorical, institutional, operational, and financial commitment. For coherence, we used the Stories of Change in nutrition framing for coherence along with Garret and Natalicchio's (2011) framework to assess institutional, horizontal, and vertical coherence in Rwanda.

Lastly, theory testing process tracing was used to understand the mechanisms that led to changes in undernutrition in Rwanda (Bennett & George, 2005; Lapping et al., 2012). In process tracing, causal mechanisms are different from causality, rather they are interacting parts that work together or one each other to produce an outcome (Beach, 2017). In this study, process tracing was conducted using the document review and multiple sources of collected primary data to gain case-specific information and understanding of the processes that led to changes in nutrition in Rwanda. Analysis looked at 1) what policy or strategy changes occurred, 2) what events and actions influenced these changes, and 3) how political commitment to and coherence in nutrition were operationalized in Rwanda.

## **5.4 Results**

### *5.4.1 Policy environment*

The nutrition progress observed in Rwanda occurred within a policy environment that was adopting new agendas across many sectors, including those that influence nutrition. After facing the 1994 genocide, Rwanda was working to reconstruct and to push the country on an economic development trajectory. In the year 2000, Rwanda adopted Vision 2020, a long-term development strategy Vision 2020 that included

specific objectives in agriculture and in human resource development through investments in health and education (MINECOFIN, 2000). The following year, Rwanda began its decentralization policy which had a strong focus on improving efficiency in the provision and delivery of public services to local communities. In the years following the Vision 2020 and decentralization policy, Rwanda rolled out new policies and programs across the different sectors that influence nutrition. In education, the country adopted a national policy that provided universal access to six and three years of primary and secondary education, respectively. This policy is believed to have contributed to increased enrollment, retention, and school completion. In 2007, Rwanda signed on to the African Union's Comprehensive Africa Agriculture Development Program which sought to increase investments and productivity of the agriculture sector. Subsequently, the country initiated the national Crop Intensification Program with the goal to increase food production across the country.

Outside of health, sectoral policies in education, agriculture, infrastructure, and gender and family promotion developed between the year 2000 to 2008 did not mention nutrition as a key goal of these sectors or as an issue these sectors influence. Beginning in 2009, a shift was observed towards making nutrition a priority. By 2012, an updated Vision 2020 policy recognized that improvements in the human resource development pillar could not be achieved without adequately addressing undernutrition (Republic of Rwanda, 2012). By the year 2013, sectoral policies or strategic plans in agriculture, social protections, education, health increasingly discussed their role and potential contributions to improving undernutrition in the country. The infrastructure

sector, however, which works on water and sanitation did not identify the contribution of its sector to nutrition until its 2016 National Water Supply Policy.

The country also introduced a few national nutrition and nutrition-related programs such as Community-Based Nutrition in the health sector (1996), a dietary supplementation program called One Cup of Milk per Child in the education sector (2010), and the One Cow per Family program in agriculture (2006). Rwanda also established the national universal health insurance program, Mutuelle de Santé which was first piloted in 1999 and became national policy in 2004 to improve access to health services.

#### *5.4.2 Leadership and decentralization*

After facing political instability and a devastating genocide, respondents described that good leadership resulted in the country's reconstruction, peace and security, and the promotion of good governance and that these helped to create an environment conducive to development. Respondents perceived the country's leadership to be more "people-focused" and dedicated to the development of the country and citizens compared to the past. Decentralization strengthened the quality of leadership in Rwanda, according to respondents, because the decentralized administrative structure improved interactions between mid-level leaders and communities, accountability of these leaders, and facilitation of programs implementation. Respondents viewed that decentralization increased the proximity between leaders and local populations which allowed mid-level leaders to be aware of the challenges facing communities and in-turn

provide more guidance and solutions to problems faced by communities, including messages on nutrition.

A government staff with responsibility in nutrition was placed at each administrative level, which respondents believed increased nutrition awareness at decentralized levels. Mid-level leaders at the district level acted on their increased awareness and responsibilities in nutrition by transmitting nutrition messages and sensitizing communities to the importance of nutrition. Some respondents described that communication by mid-level leaders demonstrated nutrition prioritization and the mid-level leaders' ability to communicate nutrition's importance to further decentralized levels.

Rwanda also used a yearly national performance contract, Imihigo, to increase accountability across sectors and districts by assessing the performance of these entities in the execution of planned programs and service delivery. Although identified at the district level, the performance contract's programs and services are in line with national priorities. Respondents believed that these performance contracts increased mid-level actors' accountability to both the communities they served and the national government.

Lastly, national, and international development partners highlighted that a decentralized governance system facilitated the implementation of nutrition-related programs because of their ability to collaborate with mid-level leaders and staff at decentralized levels in program implementation and getting community buy-in.

*“What allowed for these changes in nutrition is the decentralization of authorities. The authorities are close to us and if you have any problem, you can go to them.”* – FGD participant from a non-reduced district

*“Another thing that has changed is that local leaders are currently motivated to prevent malnutrition. In community meetings, village chiefs discuss nutrition related issues with village members.”* – Civil society organization respondent

#### 5.4.3 Changes in political commitment to nutrition

Rwanda developed high political commitment to nutrition, which was reflected not just in intent or rhetorical commitment but also in institutional, operational, and financial commitment. Respondents described a strengthened focus to address undernutrition because of the emergence of nutrition champions in Rwanda, such as the President, who publicly voiced through discourse and community visits the need to prioritize reducing undernutrition as a national development goal (**Table 5.4**). This rhetorical commitment to address undernutrition was also strengthened through the organization of national nutrition summits in 2009 and 2011 that brought attention to the burden and consequences of undernutrition in the country and brought together diverse stakeholders to discuss strategies on how to tackle malnutrition. Rwanda was able to convert this political attention to nutrition into institutional commitment, according to respondents. Following the national nutrition summits, the country shifted from health-centered strategies toward multisectoral strategies to address undernutrition and established platforms to facilitate the implementation of these strategies. In 2010, the national Joint Action Plan to Eliminate Malnutrition (JAPEM) was



established. JAPEM is a high-level joint plan, developed on a yearly basis at the ministerial level, and used to implement and monitor nutrition and nutrition-related activities across the different ministries that influence nutrition. The country further solidified its multisectoral strategies to address nutrition through its second national nutrition policy, the National Food and Nutrition Policy 2013-2018 (NFNP), a multisectoral policy that specifically mapped out the roles and responsibilities of each of the ministries involved in nutrition. According to respondents, the NFNP increased these ministries' ownership, responsibility, and participation in addressing nutrition.

*“This policy [NFNP] is multisectoral because it involves education, local government, agriculture etc. and this shows how nutrition has been given importance... Now nutrition is no longer only considered as responsibility of Ministry of Health but also of all other relevant institutions whereby each institution has its own role in nutrition.”* - National government respondent

Because of the country's decentralized governance system, the rhetorical and institutional commitment that existed at national level were also translated at decentralized levels, a form of operational commitment. For example, the increased nutrition awareness observed at national level was also observed with mid-level leaders who received information on nutrition from civil societies and used their positions to promote messages on preventing malnutrition and the availability of relevant programs at decentralized levels. Through these messages, mid-level leaders communicated that members of society, from leadership to program implementers, and to citizens, all had a role in contributing to improvements in undernutrition. Respondents believed that such

messages increased ownership in nutrition at all administrative levels and in communities.

*“The policy focuses on bringing together the different domains. It’s about knowing that it’s not anyone-single sector’s job to fight undernutrition. This was the reason things failed in the past. But now, every sector is involved in nutrition starting from the national level down to our level here in the districts. Everyone who is engaged in the administration finds himself involved in responsibilities and this responsibility goes all the way down to the main implementer, who is the CHW [community health worker] in the community.”* – Mid-level leader from reduced district

Another form of commitment to nutrition was the establishment of District Plans to Eliminate Malnutrition (DPEM) in 2010. DPEMs are yearly plans that focus solely on nutrition and coordinate nutrition and nutrition-related activities within each of Rwanda’s 30 districts. Every quarter, mid-level leaders at the district from all the sectors involved in nutrition, including health, nutrition, social protection, education, agriculture, and gender, meet in DPEM committees to plan, monitor, and evaluate nutrition-related activities and progress in outcomes. The DPEM committee meetings involve development partners and staff from further decentralized units such as the sector and cell working on nutrition in the district. Respondents believed that DPEMs showed the Rwanda’s institutional commitment to advance multisectoral action in nutrition through a decentralized platform that involved mid-level leaders. The quality of implementation of DPEM committee meetings varied by study district, however. For

example, respondents from non-reduced districts tended to report that DPEM committee meetings were organized on an ad-hoc basis with less participation and less integration of sectors such as agriculture. DPEM committees were intended to also be established at the sector, cell, and village administrative levels, but they seemed to be only functional at the district level during our study. Lastly, respondents described increased financial commitment to nutrition in Rwanda compared to the past because of the country's increased investments and provision of nutrition and nutrition-related programs.

#### *5.4.4 Changes in nutrition coherence*

The development of the multisectoral NFNP and establishment of multisectoral platforms to facilitate coordination across sectors showed Rwanda's commitment to multisectoral nutrition. To operationalize this commitment Rwanda used different institutions and platforms to coordinate nutrition and to oversee implementation of the NFNP (Table 5.5).

##### 5.4.4.1 Institutional coherence

At national level, the National Food and Nutrition Technical Working Group gathered ministries, development partners, civil society, donors, and academia to provide technical advice and assistance to the government. Respondents, mostly at the national level, found the National Food and Nutrition Technical Working Group beneficial because it created a space to share information on program implementation and outcomes and experiences of the different actors working in the country. Some respondents, however, saw this platform more as an information sharing body than a

multisectoral coordination body with convening power. For example, some participation in National Food and Nutrition Technical Working Group meetings was perceived to be weak given that the number of people and number of sectors represented during meetings was low. In 2016, Rwanda established the National Food and Nutrition Coordination Secretariat (NFNCS), housed within the Ministry of Local Government, to coordinate all the ministries, partners, administrative levels, and different stakeholders involved in nutrition in Rwanda.<sup>3</sup> The NFNCS was seen as a platform that would have more convening power compared to the health sector to integrate nutrition in the different ministries involved in nutrition and conduct monitoring and evaluation. Some, however, remained concerned about having a coordination body in one ministry coordinate other ministries. The NFNCS was in the early stages of implementation during our study, but respondents believed that it could be a great benefit if implemented well.

#### 5.4.4.2 Horizontal coherence

The NFNP brought together ministries that influence nutrition but with various individual goals and missions and assigned them responsibilities in nutrition through specific nutrition-related actions. Interviews with respondents from these different sectors at national and decentralized levels showed that the described policy roles of these sectors aligned with what respondents from these sectors perceived to be their role in nutrition, showing sectoral acceptance of role and responsibility in nutrition

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<sup>3</sup> Post our data collection, the National Food and Nutrition Secretariat moved from the Ministry of Local Government and was integrated with the National Early Childhood Development Program (NECDP) within the Ministry of Gender and Family Promotion.

**(Appendix B).** Minor differences were observed, however, with perceived role assigned by policy for actors in the agriculture sector. Agriculture actors at the community level compared to their counterpart at the district and national level were more likely to describe their sector's nutrition-related responsibilities.

The involved ministries also collaborated across sectors to address nutrition through the joint implementation of national nutrition-specific, nutrition-sensitive, and nutrition-related programs by multiple ministries, including the agriculture, health, education, gender, and local government sectors. These ministries also coordinated plans, programs, and activities across the different sectors through JAPEM at national level and DPEM at decentralized levels. These platforms mirrored each other as they were both jointly designed yearly plans that described each sector's nutrition-related activities. JAPEM and DPEMs provide a space for the different involved sectors to meet regularly to share information across sectors, assess implementation of activities and programs, and evaluate progress in implementation and outcomes. Both platforms were credited for helping the sectors that did not traditionally see themselves as involved in nutrition understand their contribution to nutrition especially at decentralized levels, thereby increasing buy-in into multisectoral nutrition strategies. At decentralized levels, the implementation of DPEMs and their associated committee meetings by mid-level leaders and the local government allowed nutrition to be prioritized at this level, thereby not fighting for attention from the many other issues that mid-level leaders attend to.

*“At the district level, we coordinate through DPEM because we discuss what is there and what is needed in nutrition... We will all hear about what is needed to help fight malnutrition and who will be in charge of what... Everyone [each sector] knows his responsibility in implementing the plan... In the past, certain sectors didn’t feel involved in nutrition, but it doesn’t mean that they were not involved. It was just not reflected in the policies. And it’s important to explain things to people and the more people meet, they start to feel that the problem [of nutrition] concerns them too.” – Mid-level leader from reduced district*

#### 5.4.4.3 Vertical coherence

Vertical coherence in nutrition refers to the translation, implementation, and coordination of the national nutrition policy from the national to the decentralized levels. According to respondents, the decentralized governance system in Rwanda facilitated vertical coherence because each level, national, district, sector, cell, and village had specific roles and responsibilities in the implementation of the NFNP. For example, respondents stated that the national level’s role was to develop policy, and the districts’ role was to manage and coordinate implementation within their jurisdictions and to support the further decentralized levels in their implementation role. At all of these levels of administration, respondents stated that there was staff responsible for nutrition, thereby increasing government response to the issue. Respondents highlighted that each administrative level answered to the administrative level above it, which fostered incentives to collaborate vertically across administrative levels.

*“There are institutions at national level from the ministry of health...and when you go at the district level, you find that authorities know about nutrition. At district level they do the follow-up and at the sector level there is a person in charge of nutrition. At the cell level there is also a person in charge of nutrition. At the village level, there is a person in charge of the well-being of people. Among people at the village level, there are community health workers who advise people and monitor children’s growth every month. This is all due to good decentralized leadership.” -Mid-level leader from reduced district*

Perceptions of interactions between the national and district levels were reported differently, however, between reduced and non-reduced districts. Respondents from reduced districts described communication and reciprocal relationships between national and decentralized levels and between actors at decentralized levels and development partners, which are facilitators in vertical coherence, more positively. These respondents stated that the national level of government was in charge of developing policy but that they, as actors at the district and community levels, felt they could share their experiences and provide feedback on policy and program decisions to the national level. Respondents from non-reduced districts tended to describe their relationship with the national level in neutral terms, focusing on the reporting relationship between the two levels. From their perspective, development partners implementing programs in districts described that the presence and leadership of mid-level leaders facilitated the implementation of nutrition-related programs in communities because they had local government buy-in and their support in

implementation. Development partners also reported that they participated in DPEM coordination meetings which helped them to be engaged with the districts in addressing nutrition.

*“As the local administration and health structures are decentralized, it becomes easy for [our organization] to plan nutrition projects together with district leaders and to get the support of the district and community leaders while implementing those nutrition projects in districts. We are very close to them...ownership in nutrition and nutrition practices must exist from the high level to the village.”- Non-government organization respondent*

#### *5.4.5 Challenges in political commitment and coherence are interlinked*

Despite the positive changes in political commitment to nutrition and coherence, respondents also described challenges. These challenges were often interlinked and they affected actions and implementation on the ground. Respondents from all administrative levels reported that financial commitment to nutrition was a key challenge. Respondents acknowledged that the increased provision of nutrition and nutrition-related programs and services in Rwanda was a sign of financial commitment to nutrition, but they believed that it remained insufficient. This insufficiency in funding had implications for the optimal implementation of the NFNP, activities outlined in JPEMs and DPEMs, and nutrition coherence at the sub-national levels. For example, insufficient funding affected the implementation of the activities that were planned, hindered the cross-sector nutrition monitoring trips that mid-level leaders and program implementers conducted together in communities, and hampered the participation in



DPEM committee meetings of actors at the sub-district level due to insufficient transportation resources. Insufficient funding also affected the ability to hire human resources to lead nutrition activities such as nutrition conveners for DPEMs at the district level, which then affected the implementation of horizontal coherence. The coordination of DPEMs was led by district vice mayors of social affairs. Many respondents, including the vice mayors themselves, described that they experienced work overload coordinating and monitoring DPEMs across sectors in their districts while also attending to their other responsibilities outside of nutrition. Work overload was also mentioned by the technical staff in charge of nutrition in ministries who also had other ministry roles. Respondents suggested that districts and ministries needed a staff member whose sole role was to convene and coordinate DPEMs or focus solely on a ministry's nutrition goals, respectively.

Overall, more respondents described challenges in nutrition coherence than to political commitment. At the institutional level, there was a lack of clear distinction and some overlap in function, role, and responsibilities of the coordination bodies at national level such as the National Food and Nutrition Technical Working Group and the NFNCS, which as one respondent stated could cause conflict and a lack of understanding of how these bodies should support each other in nutrition coordination. There were also horizontal coherence challenges regarding the joint action plans to eliminate malnutrition at both the national and decentralized levels. While JAPEM and DPEMs showed that different sectors in Rwanda had come together to coordinate around nutrition-relevant activities, some respondents believed the platforms were just

information-sharing platforms, with sectors just reporting back on their sector-specific activities rather than holistically evaluating activities in an integrated manner across sectors to inform progress towards reducing undernutrition. The lack of holistically evaluating nutrition-relevant activities in an integrated manner was reported more in non-reduced districts than reduced districts. The consequence of not holistically evaluating nutrition-related activities, according to some respondents, is that although JAPEM and DPEMs were perceived to improve collaboration across sectors on nutrition, sectors still worked in silos to address nutrition. This concern of a lack of integration of nutrition in involved sectors was especially observed in the agriculture sector. For example, in non-reduced districts, mid-level leaders in agriculture were more likely to remark that their sector was not involved in the implementation of DPEMs because DPEMs are health-centered platforms. One of the recommendations made by respondents was the need to reinforce existing nutrition-related programs, especially those from the agriculture sector by making them more nutrition-sensitive and able to address the food security challenges faced by many vulnerable households in Rwanda.

*“DPEM deals with health. It is in the social affairs department while agriculture is in the economic development department. People who work in the social affairs department like health or education sector are the ones involved in DPEM.” –*

Mid-level leader from non-reduced district

The implementation of horizontal coherence through DPEMs also faced implementation and capacity challenges that hindered the DPEM committees’ ability to monitor and evaluate progress in implementation and outcomes in each district. First,

respondents in some districts and at national level described implementation challenges because DPEM committee meetings were not always conducted. In regard to capacity, while awareness on nutrition, its multiple determinants, and the need for a multisectoral response had increased over the years, some of the mid-level leaders in charge of DPEMs requested further training in both nutrition and monitoring and evaluation. These leaders, again more from non-reduced districts, believed that they needed to improve their technical skills in nutrition and monitoring and evaluation in order to better use existing monitoring tools, understand the relevance of the data available, and evaluate progress of the changes and challenges that remain in nutrition in their districts. Respondents both at national and district level also expressed that nutrition monitoring and evaluation in Rwanda could use an integrated framework that could help to evaluate nutrition-related indicators across the different involved sectors.

Challenges in vertical coherence were mostly in regard to relationships between stakeholders across the different administrative levels. In general, relationships were good between government actors at national and decentralized levels, although respondents from non-reduced districts reported that there could be improvements in communication and financial and input support from the national government. Mid-level leaders and frontline workers at decentralized levels also voiced challenges with their relationship with the NGOs and international organizations funding and implementing programs in communities. These respondents explained that the distribution of development partners working in nutrition across districts was uneven, a sign of poor coordination, and that it led to some districts benefiting more in terms of

programs implemented or program support. Furthermore, they perceived that some development partners poorly implemented programs in their districts. Examples given of this sub-optimal implementation included low program coverage, short program duration, and programs that failed to address the district population's specific needs. Respondents also saw a duplication of efforts in the types of programs and geographic areas where partners implemented programs, which limited impact on nutrition outcomes in their districts. Some mid-level leaders also noted that since some DPEMs received technical and funding support from development partners, the poor coordination of partners across districts affected the implementation and evaluation of DPEMs in their districts.

## **5.5 Discussion**

Reducing undernutrition is a key development goal in many low and middle-income countries. Lack of political commitment to multisectoral nutrition from governments and the coherence in implementation of multisectoral nutrition strategies are important elements of the enabling environment that can explain why undernutrition persists in many countries. Despite facing many challenges over the past 25 years, including civil conflict and the 1994 genocide against Tutsis, Rwanda has rebuilt itself, increased economic growth, and undergone significant changes that helped the country reduce child stunting and improve other nutritional outcomes (NISR et al., 2015). These improvements in nutrition were, in part, driven by the country's investment in developing different sectors that influence nutrition, such as its health and agriculture sectors, and the adoption of a decentralized governance system that promoted better

governance and improved relations between leaders and communities. These developments were important to the country's political commitment to nutrition as a national development goal and the implementation of their policies and programs.

Decentralization, the dispersion of responsibilities such as public planning, management, and decision-making from centralized national levels to lower levels of government emerged as a key theme in this study as a contributor to the changes observed in nutrition in Rwanda. In the context of Rwanda, decentralization included the consolidation and reconfiguration of the administrative structure. It was also a response to the needed reconciliation between the government and local communities after instability and a more efficient system to achieve the country's pursuit of economic and social development (Kauzya, 2007; Rwanda Ministry of Health, 2013b). Some argue that Rwanda's governance systems retains a lot of power at the central level but retainment of control at the central level is often observed in other decentralizing countries (Ansoms, 2009; Desrosiers & Thomson, 2011; Lapping, Frongillo, Nguyen, Coates, & Webb, 2014). The consolidation of districts as observed in Rwanda diverges, however, from other countries that tend expand administrative levels in the decentralization process to gain political patronage (World Bank, 2015). One explanation for this consolidation is that the country, after experiencing complete destruction, wanted an efficient system that could implement its development agenda expeditiously (Chemouni, 2014).

In regard to nutrition, we found that respondents at national and decentralized levels also viewed decentralization as beneficial for relationships between leaders and

communities and accountability for the implementation of policies at local level. The presence of government ministries at decentralized levels was valuable for the coordination and implementation of multisectoral nutrition policies at decentralized levels. It also helped to translate political commitment to nutrition and coherence in implementing multisectoral nutrition strategies to its decentralized levels. At the national level, Rwanda had strong rhetorical commitment, supported by the country's President, to prioritize nutrition, place it on the political agenda, and to work towards improving outcomes. Civil society organizations and the government of Rwanda also made efforts to increase nutrition awareness at decentralized levels on why multisectoral nutrition strategies are needed to address nutrition. These efforts resulted in some intrinsic development of political commitment to nutrition and an increased sense of ownership and responsibility to work towards the reduction of undernutrition in mid-level leaders and implementation teams in communities.

Effective engagement on nutrition at sub-national levels is important for sustaining commitment there and turning such commitment into action in communities (Gillespie et al., 2013). In Rwanda, developing political commitment to nutrition at decentralized levels was important for generating buy-in for nutrition across sectors at this level. In some countries, the lack of commitment at sub-national levels hindered actions. For example, in Bolivia, institutional platforms were established at decentralized levels to facilitate cross-sector collaborations in nutrition but there was insufficient commitment and ownership from actors in sectors outside of health (Hoey & Pelletier, 2011). Despite initial high commitment at national level, these platforms became inactive. In Vietnam,

decentralization delegated planning responsibilities for nutrition to the provincial levels but the practice focused more on fiscal planning and did not generate ownership for nutrition among the planners (Lapping et al., 2014). Political commitment to nutrition was sustained thus far in Rwanda because the country established institutional bodies, platforms, and procedures to help stakeholders from diverse ministries, sectors, and organizations to communicate and coordinate nutrition actions at both national and sub-national levels.

In the past, case studies on nutrition governance have often focused on governments establishing national multisectoral nutrition policies or national multisectoral coordination committees to increase collaboration across sectors but which political leaders sometimes established to satisfy external pressures (Field, 1987; Heaver, 2005; Mejía Acosta & Fanzo, 2012). Focusing on these national level decisions, however, can mask the lack of clear procedures for program and policy implementation which occurs at sub-national levels (Benson, 2007). Rwanda addressed this shortcoming by establishing multisectoral nutrition coordination platforms within its existing political and administrative structures through DPEMs whereby mid-level leaders in all the country's districts had the responsibility to plan, manage, implement, and monitor nutrition and nutrition-related activities in their jurisdiction. DPEMs address multisectoral nutrition and decentralized nutrition program implementation. Although the quality of implementation differed across districts in this study, DPEMs were a national response. In Peru and Zambia, establishing coordination platforms embedded within government structures and implemented by mid-level leaders at decentralized

levels increased the priority given to nutrition and how stakeholders worked collaboratively to address nutrition (Harris et al., 2017; Mejía Acosta & Haddad, 2014). These decentralized platforms within government structures were exceptions and not the rule, however. In Peru, the Ayacucho was highlighted as a success story for its high reductions of stunting prevalence and poverty rates and for being a region that had taken the initiative to establish an intersectoral committee to facilitate cross-sector collaboration (Mejía Acosta & Haddad, 2014). The intersectoral committee strengthened commitment to the national strategy and improved alignment with other sectoral programs. In Zambia, Mumbwa district became a model for other districts in the country after establishing a district nutrition coordination committee embedded in the existing government system with the support of the non-government organization Concern Worldwide (Harris et al., 2017). The coordination committee led to stronger networks between partners addressing nutrition in the district and helped change the framing of malnutrition as a food security issue alone.

Despite establishing platforms to increase cross-sector collaboration at different administrative levels, Rwanda faced implementation challenges related to resources and capacity, key elements of the enabling environment (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013). Implementing multisectoral nutrition strategies involves organizational complexities to coordinate activities across sectors with different institutional goals and this places an increased workload on the actors and platforms in charge of this, which was reflected at both the national and decentralized levels in Rwanda (Field, 1987). Technical staff within the ministries involved in nutrition at the



national level and mid-level leaders discussed challenges they faced in regard to nutrition technical capacity and dealing with heavy workloads in regard to their respective institutional and nutrition responsibilities. At decentralized levels, where there is often the risk of having “underprepared middle level management” to plan, budget, and advocate for the needs of decentralized levels, giving nutrition responsibilities to mid-level leaders from different sectors requires skills in not just planning and budgeting for nutrition but also technical and monitoring and evaluation skills for nutrition (Men et al., 2005). In Rwanda, some mid-level leaders explicitly requested this further training to help them understand nutrition-related data, monitor progress, and to inform decision-making for the context-specific needs of their districts. To really integrate nutrition in different sectors and improve the capacity for decentralized leadership in nutrition will require investments in technical trainings and refresher trainings for the mid-level actors from various sectors on nutrition, how their activities complement each other in nutrition, and how to plan for and monitor change and progress in the communities within their districts. Such investments in these mid-level actors who provide leadership at decentralized levels may help to improve their role in assessing the suitability of existing programs, new programs, their design, targeting, and coverage within their districts. Challenges with funding and resources, which are often reported in many country studies, were also observed in Rwanda and affected the implementation of the procedures meant to improve coherence and nutrition-related programming (Gillespie et al., 2017). Resources were perceived to have increased over the years, but they also remained a barrier to the implementation of

activities and overall program coverage. Financial constraints limited the human resources available to effectively implement the policy leading to work overload for implementers at the sub-national level. Work overload was especially highlighted for the mid-level leaders who lead DPEMs within districts who already have other existing responsibilities and could not therefore allocate the time needed to sufficiently lead and optimally coordinate DPEMs. Increasing staff or hiring nutrition conveners who specifically focus on coordinating nutrition at the sub-national levels could increase the effectiveness of DPEMs and how decentralized levels address nutrition.

Findings from this study provide information on what countries facing similar challenges as Rwanda, can do to achieve progress in reducing undernutrition. This study also provides a better understanding of the role of mid-level actors in translating and implementing nutrition policies and the challenges they face. Essentially, political commitment to nutrition and the establishment of platforms to promote cross-sector collaboration for the implementation of multisectoral nutrition strategies were important drivers and sustainers of changes in child nutrition in Rwanda. These efforts were developed and promoted both at national and decentralized levels and focused on getting middle-level leaders and local implementers engaged in nutrition. Rwanda used its existing political and administrative structures to prioritize local response and involvement in nutrition. Sustaining these efforts and the improvements observed in nutrition will, however, also require increased resources for program implementation, increased human resources, technical trainings in nutrition for the government stakeholders with responsibilities in nutrition. Although coordination platforms have

been established across the country to facilitate coherence across sectors, these too need to be strengthened, especially in districts where implementation was weak.

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**Table 5.1: Administrative structure before and post 2016**

<b>Pre 2006</b>	<b>Post 2006</b>
National	National
Province (prefecture) (n=12)	Province (n=5)
Sub-province (sub-prefecture) (n=22)	-
Commune (n=154)	District (n=30)
Sector (n=1,544)	Sector (n=416)
Cell (n=9,104)	Cell (n=2,146)
Village (-)	Village (14,876)

Source: World Bank, 2015: Republic of Rwanda decentralization and community development project

**Table 5.2: Study districts**

Province	Reduced districts			Non-reduced districts		
	District name	2015 prevalence	2010-2015 change (pp) <sup>1</sup>	District name	2015 prevalence	2010-2015 change (pp) <sup>1</sup>
<b>Northern<sup>2</sup></b>	Gakenke	46%	-17.6	Musanze	38%	-7.5
<b>Eastern</b>	Kirehe	29%	-21.3	Bugesera	39%	+1.4
<b>Western</b>	Rutsiro	46%	-14.5	Nyabihu	59%	+7.5
<b>Southern</b>	Gisagara	38%	-10.1	Ruhango	41%	+20.4
<b>City of Kigali</b>	Gasabo	22%	-1.5	Nyarugenge	29%	+0.4

<sup>1</sup>Pp=percentage point; <sup>2</sup>In the northern province, stunting decreased in all districts between 2010 and 2015 with a range of -7.5 to -17.6 pp change. Thus, for the northern province we selected the two districts on the extremes

**Table 5.3: Total sample of semi-structured interviews and focus group discussions**

Respondent	National	Reduced districts		Non-reduced districts	
		District (n=5)	Community (n=10)	District (n=5)	Community (n=10)
<b>National</b>					
<i>Government</i>	8				
<i>Civil society and development partners</i>	24				
<b>Mid-level leaders</b>		20		18	
<b>Frontline workers</b>			10		10
<b>Focus group discussions</b>					
Male			10		10
Female			10		10

**Table 5.4: Changes in the different forms of political commitment to nutrition in Rwanda**

<b>Form</b>	<b>Description</b>	<b>Change in Rwanda</b>
Rhetorical commitment	The political attention that nutrition receives from executive or legislative politicians and non-government actors closely associated with the government. This attention consists of the stated intent to address nutrition through different mechanisms such as speeches or national declarations.	<p>On a trip to Kirehe district in 2009, the President of Rwanda made a national call to reduce undernutrition in the country.</p> <p>Rwanda, along with national and international development partners and civil society organized national nutrition summits in 2009 and 2011 to bring attention to the burden and consequences of undernutrition and define strategies to reduce undernutrition in the country.</p> <p>Mid-level leaders address nutrition challenges and the need to reduce undernutrition to communities in their districts.</p>

Form	Description	Change in Rwanda
Institutional commitment	The reflection of rhetorical commitment through policy and institutional structures, procedures, and incentives to implement and coordinate the actions needed to address the problem. The establishment of these policies or institutions can suffer from low commitment, however, which makes these inefficient and can face the possibility of being dropped because they are deemed to lack impact.	<p>Rwanda established the Joint Action Plan to Eliminate Malnutrition (JAPEM), a joint plan across multiple ministries on how to address undernutrition. The plan is a high-level plan, conducted at the ministerial level, and it demonstrates commitment to address nutrition across sectors. The plan also had associated committee meetings.</p> <p>Rwanda established District Plans to Eliminate malnutrition (DPEM) and DPEM committees, also multisectoral plans with activities to address undernutrition across multiple ministries or sectors at a decentralized level.</p> <p>The National Food and Nutrition Policy 2013-2018 (NFNP) was the first multisectoral nutrition policy that assigned roles and responsibilities to the different ministries that influence nutrition. The policy was co-owned by 3 ministries (Ministry of Health, Ministry of Agriculture, and Ministry of Local Government) to solidify through</p>

Form	Description	Change in Rwanda
Institutional commitment (cont'd)		<p>policy collaboration across sectors and move away from a health-centered view of nutrition.</p> <p>In 2016, Rwanda also committed to establish a National Food and Nutrition Coordination Secretariat (NFNCS), with the push from national and international development partners, that would coordinate and monitor nutrition actions across the different government, development partners, and private sector stakeholders in Rwanda.</p>
Operational commitment	<p>The reflection of rhetorical and institutional commitment from all the different actors involved in the chain of implementation, including the commitment of street level managers and frontline workers</p>	<p>Establishment and implementation DPEMs along with the inclusion of nutrition in performance contracts, increased the commitment and ownership of addressing undernutrition in mid-level leaders.</p> <p>Commitment to address nutrition also increased in street level managers working in decentralized levels and frontline workers such as community health workers and agriculture extension workers.</p>

<b>Form</b>	<b>Description</b>	<b>Change in Rwanda</b>
Financial commitment	The commitment of the financial resources needed to implement the different actions and activities described by policy and plans.	The increase in nutrition and nutrition-related national programs were signs of increased financial resources for nutrition.

**Table 5.5: National and sub-national coordination platforms in Rwanda**

<b>Platform</b>	<b>Level</b>	<b>Description</b>
Joint Action Plan to Eliminate malnutrition (JAPEM)	National	JAPEM is a multisector tool used to plan, support, and monitor implementation of nutrition and nutrition-related activities, DPEMs, and the NFNP. It was set up by the social cluster ministries (health, agriculture, education, gender and family promotion, and local government) that make up the Social Cluster Food and Nutrition Steering Committee. This committee that is in charge of JAPEM advises and reports on nutrition and household food security to the Office of the Prime Minister.
National Food and Nutrition Technical Working Group (NF&NTWG)	National	The NF&NTWG was established in 2013 “to provide technical advice and assist in coordinating and organizing national activities” in nutrition and to provide technical assistance for decentralized activities (NFNP, 2013). The NF&NTWG consists of stakeholders from the social cluster ministries, UN agencies, donors, national and international NGOs, civil society, research organizations, and the private sector (NFNP, 2013). Within this larger group exists sub-sector working groups dedicated to health and nutrition, WASH, agriculture, and social protection. These groups are designed to allow stakeholders to participate in the sectoral groups in which they intervene.
National Food and Nutrition Coordination Secretariat (NFNCS)	National	The NFNCS was established in 2016 to improve synergy among the different actors in nutrition and to oversee all food and nutrition activities. It plays an advisory role to the Social Cluster Ministries (Ministry of Local Government & National Food and Nutrition Coordination Secretariat, 2017). The goal of the NFNCS is to conduct targeted



Platform	Level	Description
Joint Action Development Forum (JADF)	District	<p>monitoring and evaluation in nutrition and to improve coordination for nutrition and food security. The NFCS was housed within the Ministry of Local Government but in 2017, it was turned into the National Early Childhood Development Program within the Ministry of Gender and Family Promotion.</p> <p>The JADF is a coordination forum of representatives from sector units, donors, religious organizations, private sector, civil society, District community development committee, and all other development partners intervening in a district. The JADF coordination mechanism focuses on planning, coordination of the implementation of plans, and harmonizing community development interventions.</p>
District Plan to Eliminate Malnutrition (DPEM)	District	<p>DPEMs are nutrition plans developed based on the community-based interventions and services outlined in the NFNP and offered within districts (NFNP, 2013). Once developed, DPEMs lay out the responsibilities and activities of involved ministries. DPEM meetings are led by the Vice Mayor of Social Affairs and includes participation from key actors in the health, agriculture, local government, social protection, education, and more, civil society, and development partners. These meetings are intended to plan and monitor and evaluate the progress made on DPEMs in each district (NFNP, 2013).</p>

## Chapter 6: Manuscript 2

**Coherence among sectors and stakeholders and community perspectives on contributors to change differentiate districts in Rwanda that did and did not improve child stunting<sup>4</sup>**

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<sup>4</sup> Iruhiriye, E., Frongillo, E.A., Olney, D.K., Niyongira, E., Nanama, S., Blake, C. To be submitted to *Food and Nutrition Bulletin*.

## 6.1 Abstract

**Objective:** Focusing on national trends can mask sub-national differences in reducing undernutrition. Using qualitative data, we aimed to understand differences in stunting reduction rates in Rwanda in relation to political commitment to nutrition, coherence across sectors and administrative levels in implementing Rwanda's multisectoral nutrition policy, and the changes and perceived contributors to changes in nutrition in communities.

**Methods:** We purposefully selected five districts in which stunting decreased (reduced) and five where it increased or stagnated (non-reduced) between Rwanda's two most recent Demographic and Health Surveys (2010 and 2014/15). We conducted 58 semi-structured interviews with mid-level leaders (n=38) and frontline workers (n=20) from sectors involved in implementing Rwanda's nutrition policy. Interviews focused on topics related to political commitment to improving nutrition, coherence across sectors and administrative levels in relation to nutrition, and perceived changes and contributors to changes in nutrition in communities. Responses were coded to capture themes on changes and challenges within these general topics and were compared between reduced and non-reduced districts.

**Results:** Respondents from reduced districts were more likely to define commitment to nutrition as optimal implementation of policy whereas those from non-reduced districts tended to focus more on financial commitments to improving nutrition. Differences in coherence between the two sets of districts mainly revolved around the implementation of Rwanda's District Plans to Eliminate Malnutrition and its associated

coordination meetings. Respondents from reduced districts reported optimal implementation of the District Plans, including regularly conducting nutrition planning meetings, using data from different sectors to assess plans and progress in improving nutrition outcomes, and having better integration of the agriculture and nutrition sectors. In contrast, respondents from non-reduced districts were more likely to report challenges in their relationships with various national level stakeholders and in their nutrition and/or monitoring and evaluation capacities.

Conclusion: Enhancing integration and capacity in the non-reduced districts, where progress remains a challenge, may lead to reductions in child undernutrition. Future studies should further investigate processes to increase the integration of nutrition in different sectors during policy implementation and mid-level leaders' capacity to plan and advocate for nutrition programming at decentralized levels that reflect local realities.

## **6.2 Introduction**

Over the last 15 years, recognition that optimal nutrition is central to economic and social development has increased and a global momentum to reduce the burden and consequences of undernutrition has emerged (Black et al., 2008, 2013; World Bank, 2006). Strategies to reduce undernutrition have included the scaling up of effective nutrition-specific programs and increased investment in nutrition-sensitive interventions that address specific nutrition goals within the different sectors that influence the underlying determinants of nutrition (Bhutta et al., 2013; Black et al., 2008, 2013; Ruel & Alderman, 2013). Focus should not only be on effective

interventions, however, as improvements in the underlying determinants of malnutrition or national economic growth alone do not always translate into improvements in nutritional status (Harriss & Kohli, 2009; Mejía Acosta & Haddad, 2014). Political, policy, and institutional processes that generate political commitment to holistically address nutrition in countries and sustain the commitment through the effective implementation of actions on the ground are also important (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Lapping et al., 2014).

The implementation of nutrition policies and programming often takes place at sub-national levels but research on how nutrition improves in different contexts has often focused on the political and institutional responses to nutrition at the national level (Gillespie, Mason, & Reynaldo, 1996; Gillespie & van den Bold, 2017; Mejía Acosta & Haddad, 2014; Tontisirin & Winichagoon, 1999). A lack of sustained political commitment to nutrition at sub-national levels where implementation occurs can, however, also be a reason why undernutrition persists (Mejía Acosta & Fanzo, 2012). Coherence in how the different sectors that influence nutrition address nutrition in their plans and activities (horizontal coherence) and how implementation takes place across various administrative levels (vertical coherence) affects how countries implement multisectoral or integrated nutrition strategies (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013b; Warren & Frongillo, 2017b). Therefore, understanding the role of political, institutional, and implementation processes in improving nutritional outcomes at sub-national levels is important, especially through the perspectives of the policy and program implementers, development partners, and citizens involved in these efforts.

Focusing on national trends in nutrition indicators alone can mask sub-national differences in the reduction of child undernutrition and reduce the ability to tailor policy response to context-specific challenges. For example, while undernutrition may decline at a national level, the rate and direction of change can differ widely within a country. These differences in the change of undernutrition can be due to differences in determinants within urban and rural contexts or geographical challenges (Cavatorta, Shankar, & Flores-Martinez, 2015). Differences in leadership and responsiveness to take up the nutrition issue at the sub-national levels may also be influential (Harriss & Kohli, 2009; Mejía Acosta & Haddad, 2014). Such differences across places within a country are important to understand, especially in decentralized governance systems where responsibilities in nutrition planning, coordination, and implementation shift to mid-level leaders at decentralized levels (Lapping et al., 2014).

In this paper, we focus on the differential reduction of undernutrition in Rwanda through stunting. We focus on stunting because it is a population assessment measure of undernutrition that is useful when comparing change over time in children under the age of five years (Leroy & Frongillo, 2019). High prevalence of stunting in a population is a marker of a deficient environment in which children have been exposed to. A change in the prevalence of this indicator is indicative of changes in both the immediate and the more environmental or underlying determinants of malnutrition, a sign that effective actions are being implemented to reduce prevalence.

In Rwanda between 2005 and 2015, stunting decreased 13.7 percentage points (pp), from 51.6% to 37.9% but the change was not equal across the country. The North

province of Kigali, which had the highest prevalence of stunting in 2005, experienced a stunting reduction of almost 18 pp, the largest reduction of any province. The South, East, and City of Kigali experienced reductions of around 12 pp. The West province saw the smallest reduction in stunting (9 pp) and is today the province with the highest stunting prevalence. Furthermore, change within these provinces was not uniform. Between 2010 and 2015<sup>5</sup>, change in stunting prevalence varied within the districts that make up each province, with some districts successfully reducing stunting prevalence while in other districts, stunting increased or remained stagnant.

The aim of this study was to understand what drove differential changes in stunting reduction between districts in Rwanda. We assess this differential change in stunting reduction through the political and policy processes that support the effective implementation of actions that lead to the reduction of stunting. Specifically, we focus on the role of political commitment to nutrition, coherence among sectors and stakeholders implementing Rwanda's national nutrition policy, and the perceived changes and contributors to changes in nutrition at community level.

### **6.3 Methods**

#### *6.3.1 Study design*

This study uses qualitative data from in-depth semi-structured interviews with stakeholders at the sub-national levels involved in the implementation of Rwanda's national nutrition policy and focus group discussions (FGDs) at community level in

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<sup>5</sup> It was not possible to assess change in nutritional outcomes at the district level prior to 2010 because the current administrative structure was implemented in 2006.

districts (administrative level) that reduced stunting and those that did not between the two most recent Demographic and Health Surveys (2010 and 2014/15).

We used purposive sampling to select districts based on the change in stunting reduction within all five of Rwanda's provinces: North, South, East, West, and Kigali city. We selected to sample districts from all the country's provinces to ensure that variations in experience and within country contexts were represented in our attempt to understand how Rwanda achieved progress in reducing undernutrition. Within each of Rwanda's five provinces, we selected the district with the largest reduction in stunting prevalence and the district with the highest increase in stunting prevalence (or smallest reduction in stunting if none had increased stunting prevalence). These districts were then grouped accordingly into reduced (n=5) and non-reduced districts (n=5). Descriptive analysis was conducted to compare basic characteristics of the reduced and non-reduced districts.

### *6.3.2 Sample*

The total sample consisted of 58 semi-structured interviews with mid-level leaders and frontline workers and 40 male and female FGDs (**Table 6.1**). Respondents were purposefully selected through maximum variation sampling to represent nutrition stakeholders at the sub-national levels from the different sectors involved in nutrition, per Rwanda's National Food and Nutrition Policy. Total sample sizes were determined based on the number of respondents that we thought would be required to reach data saturation based on previous similar studies and given our sampling methods to select respondents from different sectors.



At the district level, we interviewed 38 mid-level leaders from the health, agriculture, local government, and nutrition sectors who were involved in the coordination and implementation of nutrition and nutrition-related activities in both reduced (n=20) and non-reduced districts (n=18). Respondents were selected based on their job position and their intended participation in the committee meetings for District Plan to Eliminate Malnutrition (DPEM). DPEMs are yearly nutrition plans developed at the district level. The plans are used to coordinate nutrition and nutrition-related activities within each of Rwanda's 30 districts and are evaluated every quarter. The DPEM committee meetings also involve development partners and staff from further decentralized units such as the sector and cell and working on nutrition in the district. The respondents in our sample represented vice mayors of social affairs who lead nutrition at the district level, directors of health, directors of agriculture, and district nutritionists.

At the community level, we conducted 10 semi-structured interviews in each set of districts with health and agriculture frontline workers who provide services in communities for a total of 20 interviews. At the community level, we also conducted 20 FGDs (10 male and 10 female FGDs) in each set of districts to get community perspectives on the changes observed in nutrition and in their communities over the years. FGD respondents consisted of 10 males or 10 females working in the agriculture sector and at least a third of participants with children under the age of five years to provide the perspective of caregivers with children in the age group most affected by stunting and who might be recipients of nutrition and nutrition-related programs.

### 6.3.3 Data collection

We developed interview guides specific to the mid-level leaders, frontline workers, and the FGDs that covered similar topics. Semi-structured interviews with districts leads and frontline workers aimed to understand these actors' views on 1) nutrition and changes in nutrition in Rwanda, 2) nutrition within their districts, 3) their roles in nutrition, 4) the nutrition and nutrition-related programs implemented in their districts, 5) coordination of nutrition policies or programs, 6) relationships with other nutrition actors, and 7) the challenges observed in regard to nutrition. District leader interviews also covered political commitment to nutrition and monitoring and evaluation for nutrition. Through the FGDs, we aimed to gain community members' views on 1) nutrition and changes in nutrition, 2) child health and nutrition, and 3) women's health and nutrition.

All data were collected between June and November 2017. Interview respondents and FGD participants received information about the study's aims, intent, and the organizations involved in the study before providing consent. Interview participants gave signed consent to participate in the study; FGD respondents provided oral consent and selected one representative from the group to provide signed consent on behalf of all participants. All interviews and FGDs were audio recorded, with consent from respondents. When respondents did not give consent to be audio-recorded, detailed notes were taken during the interview. Interviews and FGDs were conducted in Kirundi/Kinyarwanda. All interviews were translated and transcribed into English and FGDs into French.

#### 6.3.4 Analysis

We conducted a comparative analysis that used the two sets of districts, reduced and non-reduced districts, as the unit of analysis. First, our analysis was grounded in the 5C's framework which examines the changes and challenges in three guiding categories, political commitment to nutrition, coherence, and community to understand how countries achieve progress in reducing undernutrition (Gillespie, 2015). Separate *a priori* coding lists were developed for semi-structured interviews and FGDs based on their respective instruments and the three guiding categories. A small subset of interviews and FGDs were coded using these *a priori* coding lists while also conducting emergent coding to capture additional categories. Axial coding was then used to organize and display data into conceptual themes within the emergent and three guiding categories.

After the coding stage of analyses, we described the themes that emerged from both the semi-structured interviews and the FGDs. Then, we conducted simple counts of the number of interviews or the number of FGDs from each set of districts who mentioned the described themes. If interview respondents or members of an FGD mentioned a theme multiple times, we counted it as a single mention. We took the total counts and calculated the percentage of respondents who mentioned each particular theme in each type of study district and took that as an indication of the relative salience of the idea in each respective study district (Hannah & Lautsch, 2011; Maxwell, 2010). We compared the percentage of mentions across the reduced and non-reduced districts and scanned for patterns to identify similarities and differences between the

two sets of districts. A difference of 10 percentage points or more between the sets of study districts was used to select differences to highlight.

#### *6.3.5 Descriptive statistics*

Descriptive statistics were used to describe the general characteristics of the study districts in the reduced and non-reduced groups. We used Rwanda's Fourth Population and Housing Census to describe districts' population, rural make-up, education levels, and food insecurity prevalence.

### **6.4 Results**

#### *6.4.1 Descriptive statistics on district characteristics*

The selected reduced and non-reduced districts were on average similar in district characteristics according to the most recent Rwanda census (**Table 6.2**) (National Institute of Statistics of Rwanda & Ministry of Finance and Economic Planning, 2014). Reduced districts had an average population of 371,125 and were 84.3% rural. Non-reduced districts had an average population of 325,873 and were 73.4% rural. The average household size in both reduced and non-reduced districts was 4.2. Reduced districts had a similar percentage of people ages 14 to 35 with no education at 13.7% compared to 12% in non-reduced districts. The two sets of districts were similar in use of improved sources of water and households headed by women. Both reduced and non-reduced districts had on average an equal percentage of households with moderate food insecurity at 20.8% and 20.0%, respectively (NISR, MINAGRI, & WFP, 2016).

#### 6.4.2 Differences in commitment

Mid-level leaders in both sets of districts reported that political commitment to nutrition was high in the country, both at national and sub-national levels. This commitment was demonstrated by rhetorical commitment to nutrition through nutrition champions, speeches, advocacy, increased nutrition awareness in mid-level leaders, and the nutrition messaging conducted at community levels by mid-level leaders. Rhetorical commitment was complemented by institutional commitments such as the adoption of a national multisectoral policy and the establishment of coordination platforms that facilitated collaboration across sectors and nutrition actors through the Joint Action Plan to Eliminate Malnutrition and the National Food and Nutrition Coordination Secretariat at the national level, and DPEMs at district levels. Respondents described increased financial commitment to nutrition but remarked that this was still insufficient in the country which led to constraints in human resources, work overload of those in charge of coordinating nutrition, and the inability to implement nutrition-related activities as planned.

When asked how they personally define or assess commitment to nutrition, respondents defined commitment in six different themes. The first theme, all stakeholders have ownership in nutrition, described the idea that all people in society, whether a policymaker, an implementer, or a citizen, must feel involved in efforts to eliminate malnutrition. It was mentioned often across both study districts. One respondent described this theme by stating:

*“Commitment for nutrition means that there must be a commitment from authorities and partners but there must also be a commitment from beneficiaries. Our beneficiaries are our citizens, as authorities and partners we are committed to eliminate malnutrition, we want to see that kind of commitment in our citizens as well.” -Mid-level leader from non-reduced district*

The second theme that emerged to define political commitment to nutrition was the commitment of financial resources. Respondents who mentioned this theme described that commitment to nutrition requires sufficient funding for implementing planned activities. Another theme that emerge was working towards the goal of improving nutrition until it is achieved. The fourth theme described commitment to nutrition as the optimal implementation of nutrition policies. Respondents who mentioned this theme believed that developing a national nutrition policy is a sign of political commitment to nutrition, but that the optimal implementation of a policy was a stronger sign of political commitment. Good implementation showed that a country was committed to move beyond rhetoric and theory to actions that put in practice the intent of policy.

A few respondents also described commitment to nutrition as valuing nutrition for what it is and its diverse determinants and to value the field of nutrition. One nutritionist described this form of commitment, stating that:

*“There are people who still think and say that nutrition is only eating food and they say who doesn’t know how to eat? There are people who still think like so. But commitment means that nutrition should be valued, it should be valued in all institutions at all levels. Nutritionists should be valued. There are nutritionists who finished their studies but are not yet employed.”* -Mid-level leader from a reduced district

Lastly, evaluating policies and programs to understand effectiveness and to inform improvements was a theme that also emerged to define commitment to nutrition although it was described by one respondent from a non-reduced district.

The only difference observed between the two sets of districts on political commitment was how respondents defined political commitment to nutrition. Respondents mentioned the different themes of commitment similarly across the two sets of districts, except for commitment as optimal implementation, and commitment as financial resources (**Figure 6.1**). Respondents from reduced districts were more likely to define commitment as the optimal implementation of nutrition policy, whereas respondents from non-reduced districts were more likely to define political commitment to nutrition in terms of financial commitment.

#### *6.4.3 Differences in horizontal coherence*

At the sub-national level, horizontal collaboration on nutrition occurred through DPEM and DPEM committee meetings. Coordinated at the district level, DPEM coordination meetings were intended to be held on a quarterly basis to monitor the

implementation of nutrition and nutrition-related programs and activities and to evaluate progress.

Respondents from reduced districts were more likely than non-reduced districts to describe DPEMs as beneficial platforms, stating that their implementation helped the different sectors involved in nutrition to understand how they contribute to nutrition (**Figure 6.2**). Respondents from reduced districts were also more likely to describe optimal DPEM implementation compared to non-reduced districts. For example, although respondents from both sets of districts reported that different sectors were involved in the DPEM committee meetings, respondents from reduced districts were more likely to discuss the reporting of sector-specific nutrition related activities during the meetings compared to non-reduced districts. Respondents from reduced districts more often discussed an evaluative approach to DPEM meetings that included evaluating the DPEM and actions taken by the different sectors to understand the changes occurring or failing to occur in nutrition within their districts using health center and community growth monitoring data to assess children's nutritional status. One mid-level leader in a reduced district explained:



*“We coordinate through DPEM because we discuss what is there and what is needed in nutrition, in agriculture...in education...in health... We look at the different problems that can cause the malnutrition in the district and after we set a plan and some strategies how to eliminate them...In the meetings we evaluate what was in the action plan, and see what is done, what is not done yet. We would meet and discuss the challenges and why malnutrition was decreasing in certain areas but not in others?” -Mid-level leader from reduced district*

With regard to monitoring and evaluation for nutrition, respondents from reduced districts also described assessing outcome indicators along with process measures (e.g., number of households with established kitchen gardens or latrines, number of antenatal care visits women attended) to assess progress in nutrition more than non-reduced districts.

Comparatively, low participation in DPEM coordination meetings was reported more often in non-reduced districts where mid-level leaders described the scheduling of meetings to be ad-hoc, which sometimes resulted in non-conducted meetings (**Figure 6.3**). Participation in DPEM meetings was also hindered because of the perception that DPEMs were health-focused and therefore did not involve respondents' sectors. This view that DPEMs were health platforms was mainly mentioned by respondents from non-reduced districts and from the agriculture sector. For example, one mid-level leader stated:

*“DPEM deals with health. It is in the social affairs department while agriculture is in the economic development department. People who work in the social affairs department like health or education sector are the ones involved in DPEM.”* -Mid-level leader from non-reduced district

Responses from non-reduced districts also showed signs that nutrition was less integrated in their agriculture sectors compared to reduced districts. This lack of nutrition integration was stronger at district level compared to the community level. For example, respondents from the agriculture sector viewed their role in nutrition to be centered on four main roles: 1) food production and availability, 2) economic development, 3) promoting the consumption of diverse diets, and 4) working with the health sector. While frontline workers in agriculture from both sets of districts all discussed the nutrition-sensitive role of the agriculture sector of promoting the consumption of diverse diets, mid-level leaders from non-reduced districts were less likely to mention this response.

Furthermore, respondents from non-reduced districts were also more likely to discuss the need for improvements in monitoring and evaluation. For example, respondents from non-reduced districts more often requested training to build capacity in nutrition and monitoring and evaluation for nutrition so that they may be better positioned to use available data to evaluate the changes occurring and failing to occur in their districts. A respondent from one of the non-reduced districts stated:

*“About the way monitoring and evaluation information is used, we still have challenges regarding lack of expertise in nutrition, so that that information may be analyzed and give good results. There are some challenges in using the monitoring evaluation data and there needs to be improvement of the analysis.”*

-Mid-level leader from a non-reduced district

#### 6.4.4 Differences in vertical coherence

Some differences were also observed between reduced and non-reduced districts regarding the relationship between the mid-level leaders and frontline workers at sub-national level and government and development partners at the national level. Respondents from non-reduced districts were more likely to describe their relationships with the national government in neutral terms describing the reporting lines between the levels. Comparatively, respondents from reduced districts depicted this relationship to be reciprocal: the national government sought their feedback on program and policy and they perceived their voices and feedback were considered at national level. Most mid-level leaders and frontline workers from both sets of districts reported positive relationships with development partners, which consisted of international and national non-government organizations and civil society organizations, due to good communication, collaborations in program implementation, and development partner support for the DPEMs (**Figure 6.4**). A few respondents in both reduced and non-reduced districts also described that development partners’ goals aligned with government plans and goals, which was seen positively. Respondents from reduced

districts were, however, more likely to mention collaborating with development partners in coordination meetings compared to respondents from non-reduced districts.

Still, about 40% of respondents from both sets of districts described adverse aspects of their relationships with development partners that needed improvement. They expressed that improvements were needed in the nutrition-related programs implemented by development partners, specifically in their targeting, coverage, duration, and partnership with district staff (**Figure 6.5**). The coordination of development partners working in nutrition was a challenge also expressed by both sets of districts, although each set of study district highlighted these challenges differently. Respondents from reduced districts were more likely to describe an unequal distribution of development partners across districts, which led to unequal support for the districts and program implementation. Meanwhile, respondents from non-reduced districts were more likely to request improvements in the coordination of development partners in order to be better informed of their programs and to avoid redundancies in implementation such as organizations working in the same few geographic areas.

#### *6.4.5 Community views on changes and contributors to changes in nutrition*

Many respondents reported improvements in nutrition over the years, especially improvements in acute malnutrition (**Figure 6.6**). Some respondents from both sets of study districts also reported a deterioration in malnutrition (16% in reduced districts and 21% in non-reduced districts). In both instances, more respondents from non-reduced districts reported the improvements and the deterioration on nutrition. FGDs were, however, much more likely to report a deterioration in nutrition compared to mid-level

leaders and FLWs, stating that there was increase in inadequate dietary intake due to decreased food availability and food diversity. This view that nutrition had deteriorated over the years was especially concentrated in female FGD respondents, and it was reported more in non-reduced districts compared to reduced districts.

Overall, respondents believed that the increased provision of nutrition and nutrition-related services and programs across different sectors such as education, infrastructure, and the health and agriculture sectors especially were the main contributors to the observed improvements in nutrition, especially among children under the age of five and pregnant and lactating women (**Figure 6.7**). Respondents expressed that there was improved access to health services compared to the past because of the proximity of facilities to communities in part due to the decentralization of the health system and the availability of universal health care insurance called Mutuelle de Santé. Respondents also reported positive changes in the agriculture sector given national agricultural programs such as kitchen gardens, trainings on improved farming techniques, and increased access to agricultural inputs such as improved seeds. These services and programs in agriculture contributed to increased food production, improvements in food consumption, and the decrease in severe acute malnutrition in the country. The reinforcement of frontline workers both in the health and agriculture at community level was also reported as a contributor to changes in nutrition by some respondents.

Although respondents described similar contributors to improvements in nutrition by sector (e.g., health, education, agriculture, etc....), differences were observed in which contributors were more emphasized in each type of study district (**Figure 6.8**).

Respondents from non-reduced districts attributed changes in nutrition to agricultural programs more often than those in reduced districts. Comparatively, respondents from reduced districts mentioned the contribution of a variety of sectors to improvements in nutrition more often. Specifically, regarding the contributors to change in the health sector, respondents from reduced districts described an increase of health service infrastructures (e.g., health centers and health posts) in communities and the use of health services such as giving birth in health facilities, decreased delay in seeking care when ill, and participation in antenatal care more than respondents from non-reduced districts. Regarding water, sanitation, and hygiene, respondents from reduced districts were also much more likely to attribute changes in nutritional outcomes to having increased access to water. Lastly, although respondents from both sets of study districts described improvements in gender as contributors to change, those from non-reduced districts highlighted an increase in women's empowerment more often than those from reduced districts, such as women's increased participation in society and decision-making at both the household and community level. Respondents from reduced districts also described men's increased awareness of nutrition issues such as the nutritional needs of a pregnant and lactating woman which was not mentioned in non-reduced districts. According to respondents, this increased awareness in men improved the care and support women receive during pregnancy and increased the use of family planning and birth spacing.

## 6.5 Discussion

Over the last 25 years, Rwanda has made progress reducing undernutrition, including in stunting (NISR et al., 2015). Despite Rwanda's national progress in reducing stunting, the progress in reduction has not been uniform within the country. The rate and direction of stunting reduction has differed across the country's decentralized levels, specifically at the administrative level of districts where stunting has decreased in some districts but increased or remained stagnant in others (NISR et al., 2015). In this study, we aimed to understand the differences in stunting reduction in Rwanda through the role of political commitment to nutrition, coherence in nutrition actions, and perceived contributors to change at community level.

In Rwanda, the adoption of a decentralized governance system, which also saw a revised administrative structure, was an important change (RGB, 2018). This governance system redistributed planning and managerial responsibilities to lower administrative levels of government, including those in nutrition, with the goal of improving governance and public service delivery (Kauzya, 2007). The establishment of the DPEMs in all of Rwanda's 30 districts demonstrates the country's commitment to address nutrition within its existing political and administrative structures and to give mid-level leaders increased responsibilities of nutrition governance at the sub-national level (NFNP, 2013). One of the challenges that often occurs with decentralizing governance systems, however, is distributing planning, managerial, and coordination responsibilities to an "underprepared middle-level management" (Lapping et al., 2014; Men et al., 2005). This challenge is especially pronounced in the implementation of multisectoral

nutrition policies, which requires actors from sectors with different missions and values to work together organizationally and operationally to address an issue that they may view to be out of their domain.

Districts that reduced stunting were better able to address this challenge compared to non-reduced districts through a more optimal implementation of coordination through DPEMs. The implementation of DPEMs in districts helped to increase nutrition awareness and collaboration across sectors among actors at decentralized levels.

Districts that reduced stunting reported a more optimal implementation and involvement of different sectors in the multisectoral plan and platform established to plan, implement, and monitor progress on nutrition and nutrition-related activities at district level. Non-reduced districts reported less participation, had a more health-centered view and understanding of DPEMs, and faced more management capacity challenges compared to reduced districts, which may have hindered their ability to better foster collaboration or coordination across different sectors to address nutrition.

A similar evaluation of DPEMs working in 15 districts (four of which are among this study's non-reduced districts and one of the reduced district) also found that DPEM committee members had not received training on strategic capacities such as leadership, communication, or monitoring and evaluation, all skills that would strengthen the implementation of DPEMs in general (USAID, Catholic Relief Services, SNV, & Feed the Future, 2019). Moreover, respondents in our study from non-reduced districts were more likely to request for further training in nutrition and monitoring and evaluation for nutrition, illustrating that they may not have felt comfortable with these



responsibilities and wanted more support in these tasks. Strengthening the implementation of DPEMs and technical development for nutrition monitoring could increase coherence in addressing nutrition horizontally across sectors and the ability of mid-level leaders to better monitor and plan for nutrition activities in non-reduced districts.

Although respondents from both reduced and non-reduced districts described that changes across different sectors contributed to improvements in community nutrition similarly, certain aspects within a sector were emphasized differently. Respondents from the districts that reduced stunting emphasized more the role of increased health structures and their proximity to communities and the increased use of health services for antenatal care, giving birth in health facilities, and decreasing delay in care seeking. Respondents from reduced districts also more widely attributed improvements in nutrition to an improved environment, especially regarding increased access to water. For gender relations, responses show that improving men's awareness in nutrition was also an important difference between the study districts. In addition to the contribution of women's empowerment in their households and communities, which was described more in non-reduced districts, respondents from reduced districts also emphasized that men's nutrition awareness helped to adopt better practices in the home, especially in the care and support for pregnant and lactating women. Men's sensitization to nutrition helped them to better understand the importance for antenatal care visits, pregnant and lactating women's nutritional needs, and the benefits of birth spacing. These differences highlight both the importance of addressing structural determinants such as

access to water and access to health services as well as generating buy-in from the demand side of services in improving undernutrition. Comparatively, the contributors more emphasized in non-reduced districts were the contribution of access to agricultural programs.

Respondents from both study districts explained that collaborations with partners had supported the implementation and evaluation of DPEMs within the districts they worked but collaborations within coordination platforms such as DPEMs were expressed more in districts that reduced stunting. Overall, however, the coordination of development partners across districts was viewed to be poor and the distribution of partners across districts unequal by respondents at decentralized levels. A nutrition rapid stakeholder mapping conducted in 2017, around the same time that data for this study was collected, supports these views. Despite identifying over 70 development partners (international and local) working in nutrition or nutrition-relevant programming and districts usually having about 20 development partners, only 25% of key nutrition actions identified in the country were implemented within districts (MIGEPROF; World Bank Group, 2017b). Furthermore, nutrition programming was implemented in many sectors (administrative level), only a few cells in a specific sector were covered by programs.

The decentralization of governance systems, especially in low-income countries, can widen disparities between regions, including disparities in health (Azfar et al., 1999; Lieberman, Capuno, & Minh, 2005; Men et al., 2005; Rodríguez-Pose & Ezcurra, 2010). There is minimal evidence, however, regarding the influence of decentralization on

multisectoral nutrition strategies and programming at sub-national levels. In Vietnam, Lapping and colleagues examined the planning process for nutrition at the decentralized provincial levels and they found that the nutrition planning process lacked coordination across sectors and varied little across provinces (2014). The lack of variation in nutrition planning across provinces hindered the provinces' ability to address nutrition challenges of their local contexts and demonstrated a need for increased engagement and authority for mid-level leaders to own the planning process rather than it being just a financial exercise. In Rwanda, the implementation of horizontal and vertical coherence was stronger in the districts registering improvements in nutrition compared to those where improvements were not observed. Subsequently, the perceived contributors to change mentioned in these districts with better implementation of coherence tended to touch different sectors, whereas respondents in non-reduced districts discussed the availability of programs in the agriculture sector more.

Political commitment and coherence in the translation of national nutrition policies at the sub-national level are important in the path to improve nutrition outcomes in communities. This study investigated commitment and coherence and how they translated on the ground from the perspectives of mid-level leaders and frontline workers from the different sectors involved in the implementation of the Rwanda's national nutrition policy and of community members. A strength of this study is that our sampling method allowed us to examine the role of political commitment to and coherence in nutrition in the differential change in stunting reduction in Rwanda's districts between the two most recent Demographic and Health Surveys. The two set of

districts that were compared, reduced and non-reduced districts, represented all of the country's different provinces and had on average similar demographic, geographic make-up, and food security characteristics, highlighting that the institutional response to nutrition at sub-national levels plays a role in how change occurs in nutritional outcomes. Limitations included that this study was not able to examine in-depth the funding mechanisms used to promote multisectoral programming and strategies at the decentralized systems and how that may have affected changes in nutrition. Funding challenges were expressed often and data on this mechanism could have strengthened the study. Although study respondents were not aware that study districts were selected based on the improvement and lack of improvement in stunting prevalence between 2010 and 2015, knowing where their districts stood in regard to nutrition could have influenced how mid-level leader respondents described how change occurred or the challenges faced in their districts. For example, respondents in non-reduced districts may have given responses to try to explain why things did not improve in their districts, thereby affecting our interpretation of the causes of change or lack of change and differences between the reduced and non-reduced districts. We do not believe that these considerations would have affected frontline worker and focus group participants responses, however, given that they may be unlikely to know the demographic and health survey results on stunting prevalence rates of their districts and its change over time.

Enhancing implementation, integration, and capacity in the non-reduced districts, where progress remains a challenge, may lead to reductions in child undernutrition.

Future studies should further investigate processes to increase the integration of nutrition in different sectors during policy implementation and mid-level leaders' capacity to plan and advocate for nutrition programming at decentralized levels that reflect local realities.

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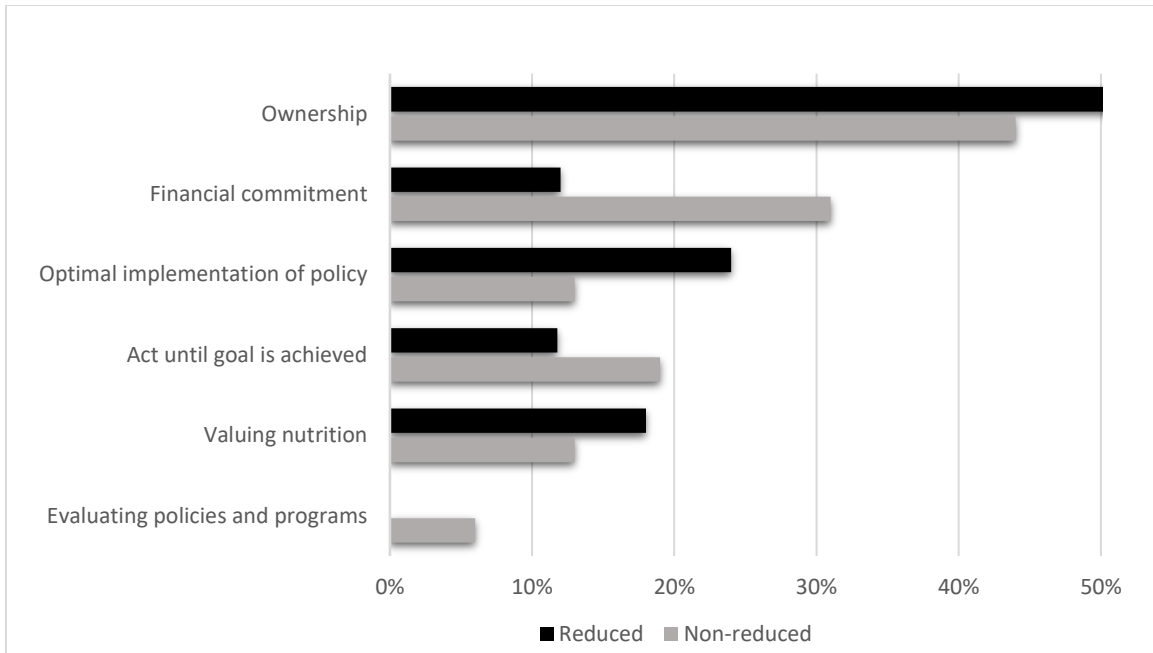
**Table 6.1: Study sample**

Respondents	Reduced districts		Non-reduced districts	
	District (n=5)	Community (n=10)	District (n=5)	Community (n=10)
<b>Mid-level leaders</b>	20		18	
<i>Local government</i>	4		4	
<i>Health</i>	5		4	
<i>Agriculture</i>	5		5	
<i>Nutrition</i>	6		5	
<b>Frontline workers</b>		10		10
<i>Health</i>		5		5
<i>Agriculture</i>		5		5
<b>Focus group discussions</b>				
<i>Male</i>		10		10
<i>Female</i>		10		10

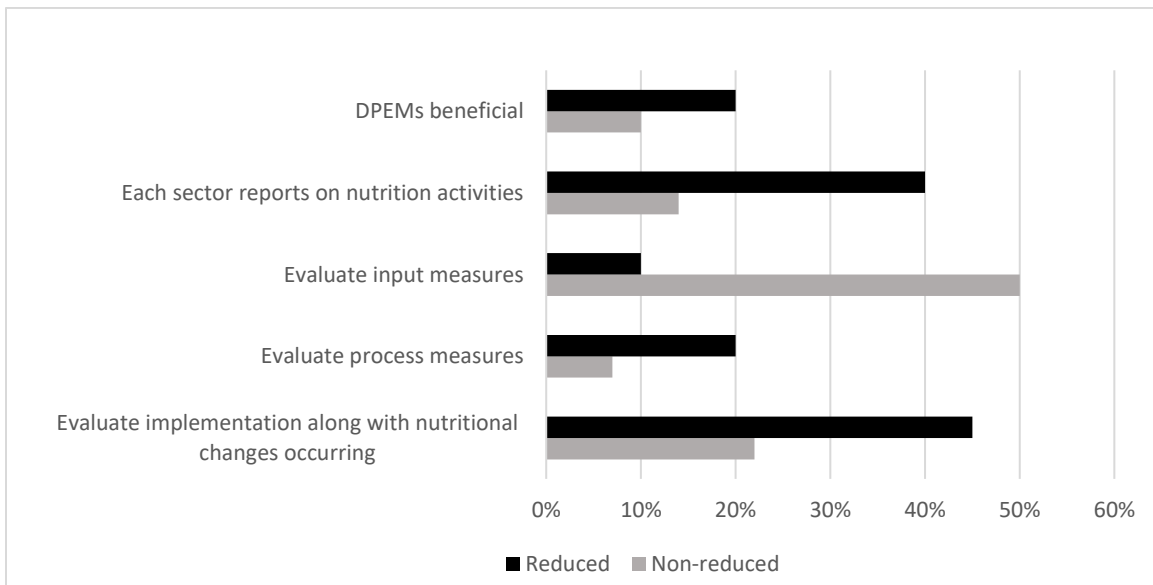
Table 6.2: Study districts' profile<sup>1</sup>

Study district	Province	District	Population size <sup>2</sup>	% Rural <sup>2</sup>	Mean household size <sup>2</sup>	% youth 14-35 with no education attained <sup>2</sup>	% Moderately food insecure households <sup>3</sup>
Reduced districts	Kigali	Gasabo	529,561.0	31.0	3.8	6.4	3.0
	North	Gakenke	338,234.0	97.2	4.2	10.7	21.0
	South	Gisagara	322,506.0	98.4	4.2	16.8	17.0
	East	Kirehe	340,668.0	97.0	4.4	16.4	15.0
	West	Rutsiro	324,654.0	97.8	4.5	18.0	48.0
Non-reduced districts	Kigali	Nyarugenge	284,561.0	24.8	3.9	5.4	2.0
	North	Musanze	368,267.0	72.3	4.3	12.5	15.0
	South	Ruhango	319,885.0	91.9	4.2	11.9	24.0
	East	Bugesera	361,914.0	92.0	4.2	13.6	27.0
	West	Nyabihu	294,740.0	86.2	4.5	16.1	32.0

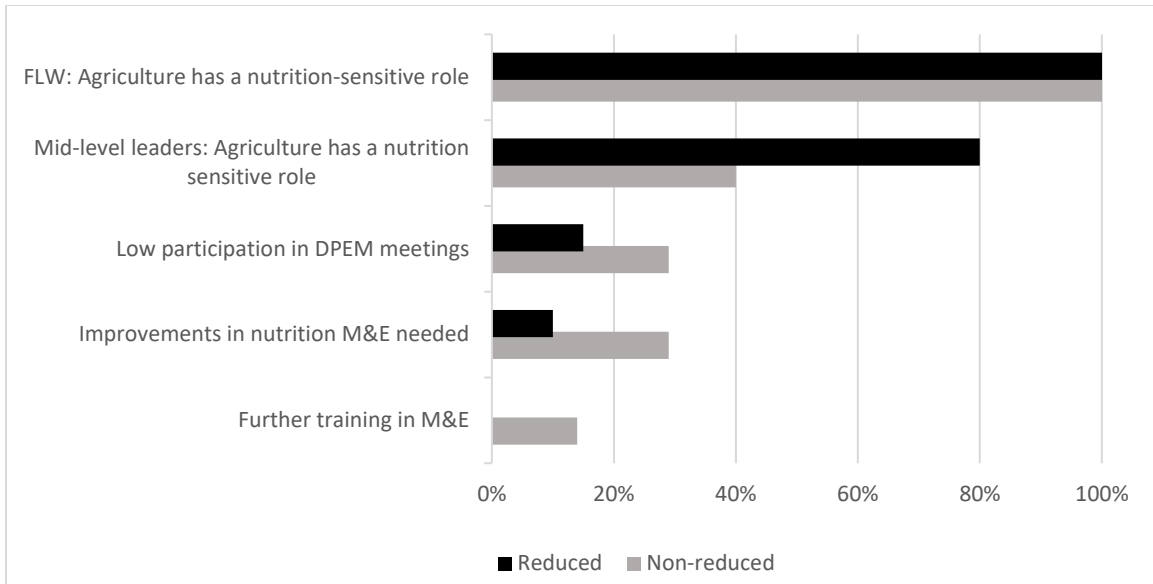
<sup>1</sup>The use of improved sources of water and the percent of households headed by women were also similar between the two sets of districts; <sup>2</sup>Source: Rwanda Fourth Population and Housing Census, 2012; <sup>3</sup>Source: Comprehensive Food Security and Vulnerability Analysis, 2015



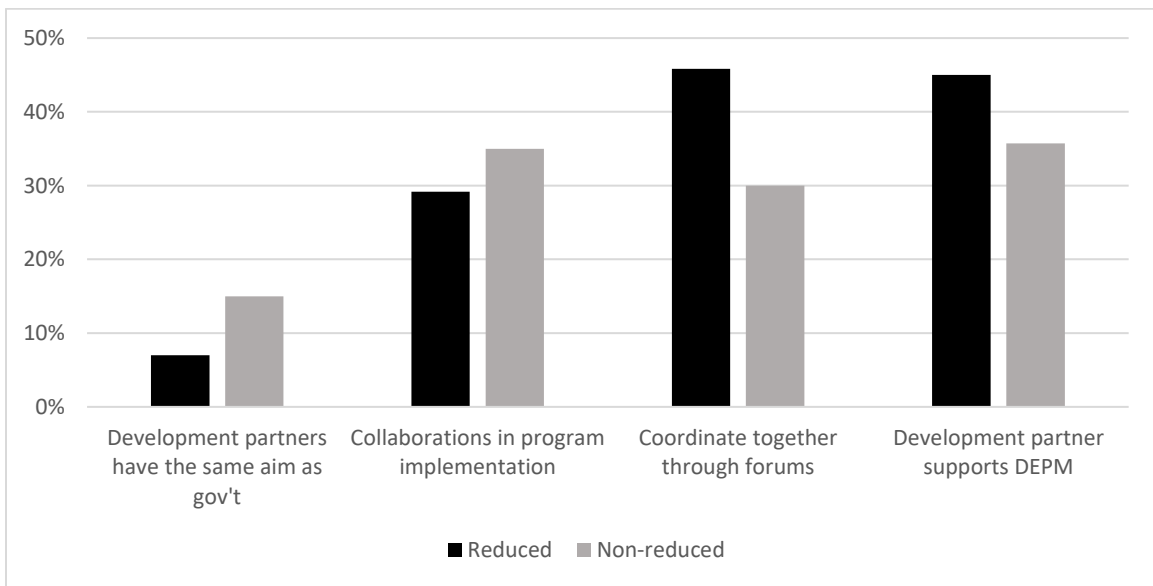
**Figure 6.1: Differences in how respondents define political commitment to nutrition**



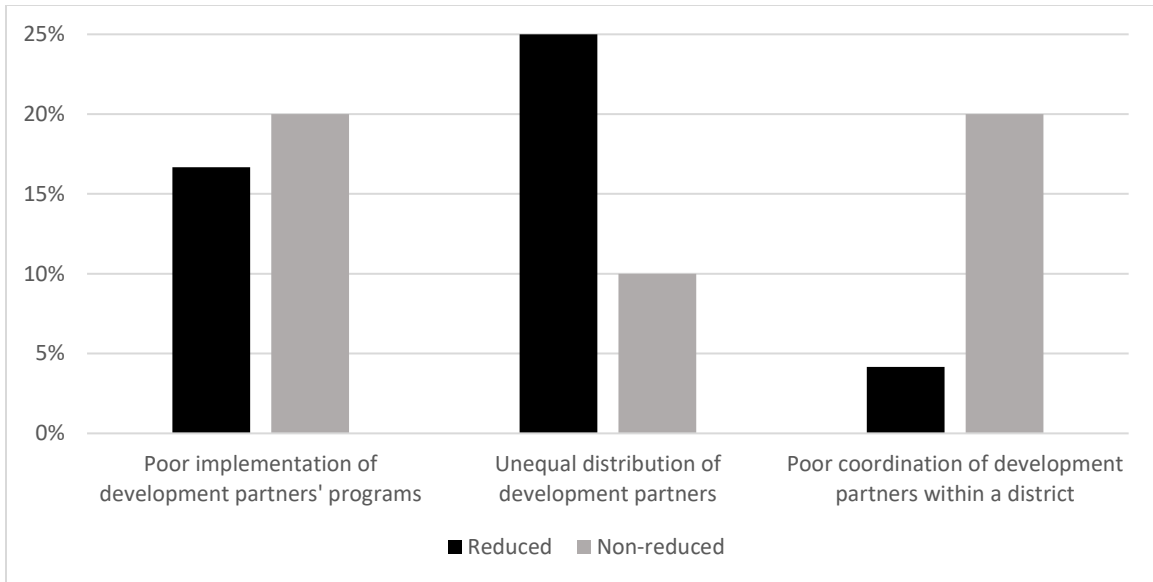
**Figure 6.2: Horizontal coherence: Worked better in reduced districts**



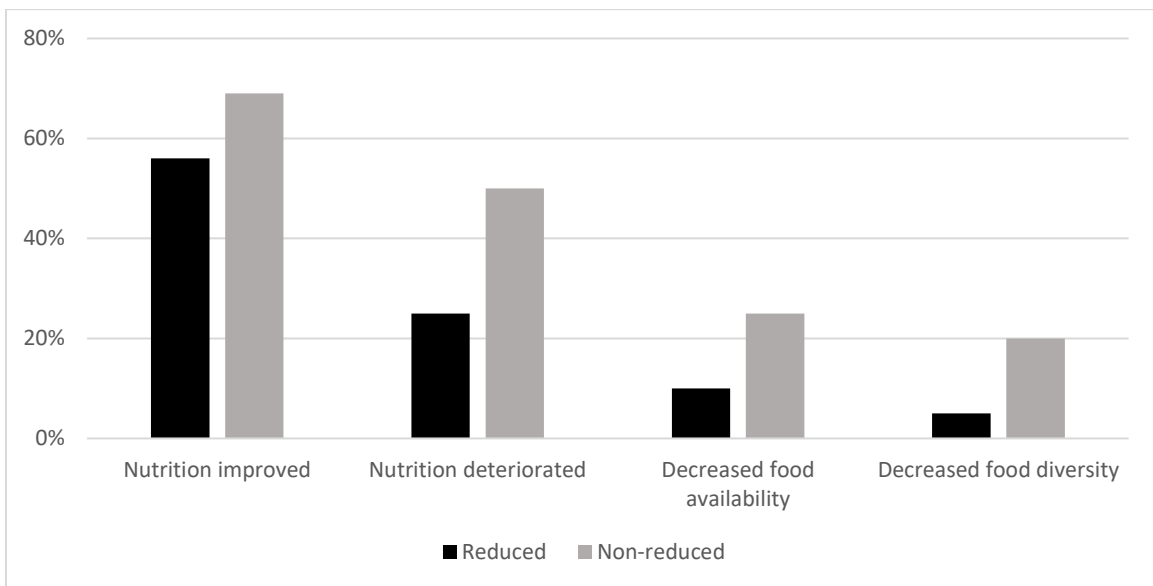
**Figure 6.3: Horizontal coherence: Less optimal in non-reduced districts**



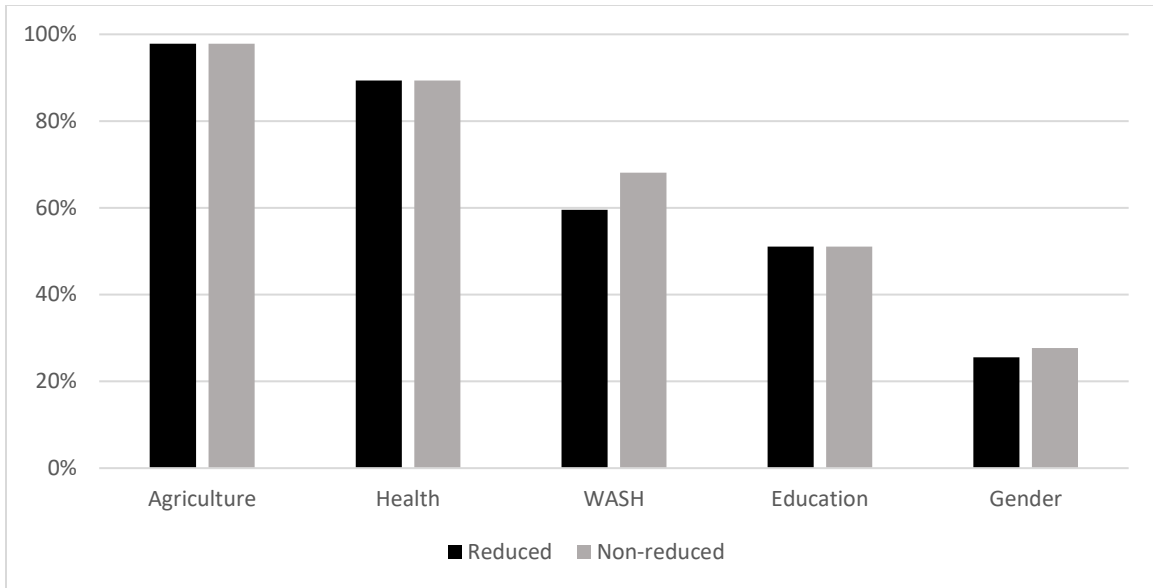
**Figure 6.4: Relationship between sub-national actors and development partners according to sub-national actors**



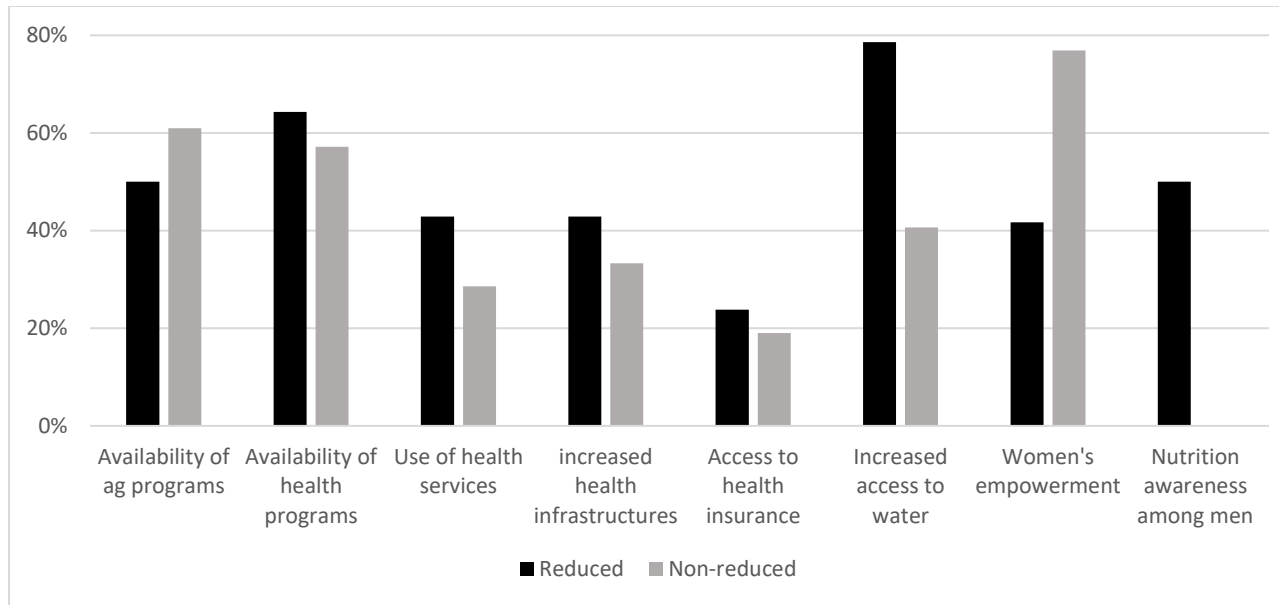
**Figure 6.5: Improvements needed in the relationship between sub-national actors and development partners according to sub-national actors**



**Figure 6.6: Perceived change in nutrition and contributors to deterioration in nutrition according to focus group discussions**



**Figure 6.7: Contributors to improvements in nutrition by sector**



**Figure 6.8: Perceived contributors to improvements in nutrition**



## Chapter 7: Conclusion

The institutional homelessness of nutrition has long been a challenge for the nutrition field, especially in addressing undernutrition in low- and middle-income countries. Furthermore, the invisibility of certain forms and consequences of undernutrition make it difficult for stakeholders to prioritize undernutrition because it does not visually attract attention as an urgent issue. These challenges together result in insufficient actions to reduce undernutrition and a lack of collaboration across relevant sectors.

Several global moments occurred in the mid- to late-2000's and opened up a window of opportunity to increase advocacy and momentum for reducing undernutrition globally. These moments included the Lancet series on maternal and child undernutrition which succinctly communicated the consequences of undernutrition on mortality, health, cognitive development, and the economic productivity of individuals and society. The consequences of undernutrition throughout the life course and the economic framing of the impacts of undernutrition helped to generate increased priority in different countries.

This study showed that Rwanda quickly answered the call to prioritize undernutrition as a development goal shortly after some of the key moments in

nutrition in the mid-2000's. Rwanda, at the time, was rebuilding post a civil conflict and genocide that shook the country in the 1990s. The country had established national goals and ambitions to turn the country into a middle-income country in a 20-year timeframe. The nutrition community's agreement on the causes and short-, mid-, and long-term consequences of undernutrition nutrition resonated with the political and policy context in Rwanda that was focused on human resource development to achieve their economic development objectives. After 2008, reducing undernutrition became a national priority in rhetoric but also in policy and institutionally. Reducing undernutrition became and continues to be gradually integrated into different sectoral policies and in national economic development strategies. Nutrition advocacy strategies were implemented not just in communities but also in government structures at different administrative levels. Institutional bodies were established to facilitate collaboration across sectors and actors working to address nutrition in the country. Relevant sectors also placed nutritional focal persons to strengthen commitment to nutrition.

Generating political commitment to nutrition at national level and establishing platforms to increase coherence in nutrition do not necessarily result in changes in actions or outcomes on the ground. In Rwanda, political commitment to nutrition and collaborations between administrative levels and across sectors within an administrative level were also important at sub-national levels and in communities where the implementation of nutrition policies and programs occurs. Understanding the lens through which stakeholders at sub-national levels view multisectoral nutrition policies

and strategies and their role in these strategies provides viewpoints that are informative for implementation and to address constraints that hinder implementation.

In this case study, we found that Rwanda, already in the midst of implementing a national decentralization policy, established platforms and joint nutrition plans to foster multisectoral collaboration on nutrition at decentralized levels in the early stages of their prioritization for nutrition. Rwanda established these platforms, the District Plans to Eliminate Malnutrition and their respective committee meetings, throughout the country's 30 districts before establishing a national coordination body. The decentralization policy the country had adopted devolved many functions and responsibilities, including service delivery to the districts. The joint nutrition plans and coordination committees associated with these plans created spaces to advocate for nutrition and increase nutrition awareness among the mid-level leaders from different sectors tasked to coordinate and monitor nutrition and nutrition related activities in their communities. Implementation of these plans and their coordination platforms, however, differed across the districts in our study. Respondents in districts that reduced stunting reported more inclusive participation of different sectors and integrated assessments of progress and challenges towards identified district nutrition goals across sectors compared to non-reduced districts. The better performing districts also reported having development partner support in developing and evaluating their district plans for nutrition.

Despite the increased empowerment of districts through the decentralization policy, some power remains concentrated at the national level. A constraint identified by

respondents especially at the sub-national level was the misalignment between community needs and the programs implemented by development partners in their districts. Although some respondents described that development partner programs aligned with national development priorities and goals, mid-level leaders and implementers within districts perceived that many improvements were still needed in the coordination of these partners and their programs at the district level. This challenge highlighted that although district coordination meetings take place and include development partners, districts may not be involved in the discussions on which partners or programs get implemented in their districts and where.

Leadership, a key theme that emerged in this study and an important component of the enabling environment for improvements in nutrition, was a facilitator to the political commitment and coherence observed in Rwanda (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013). As Rwanda rebuilt itself, national leadership strongly advocated for the country's overall economic development and the eventually the need to prioritize nutrition to achieve this goal. Study respondents described that leadership in the country improved the relationship between the government and citizens compared to the past. This relationship was strengthened through the country's decentralization efforts but also investments in the country's institutions and bureaucratic efficiency to better deliver services and achieve development in the country, which includes the quality of civil service and public agencies, public service delivery, and policy implementation (Smith & Haddad, 2015).

The challenges expressed by stakeholders in this study illustrate that operational challenges in political commitment and nutrition coherence impede the optimal implementation of multisectoral nutrition strategies. At the policy level, nutrition goals are increasingly identified as part of sectoral policy objectives, but some policies fail to adequately address linkages to their sectoral interventions or how contributions to nutrition will be monitored. Other sectoral policies include nutrition outcome indicators such as decreasing child stunting or underweight, but they fail to include process or outcome indicators that can provide helpful information on how that sector is addressing nutrition. For example, the 2013 Social Protection Strategy identifies the prevalence of stunting in the country's two lowest socioeconomic groupings (the groups that are usually targeted in the country's social protection programs) as its nutrition indicator. Using only nutritional outcome indicators as the core sectoral policies' nutrition indicators may fail to highlight the sectors' ability to affect other changes that are important for nutrition.

Technical capacity in nutrition was another challenge identified by stakeholders from different sectors, including the health sector, at national and decentralized levels. Capacity constraints have long been identified as barriers to optimally addressing nutrition (Pelletier et al., 2012; Webb et al., 2016, Gillespie & van den Bold, 2017). The nutrition field has not sufficiently addressed this challenge. In Rwanda, although the different sectors involved in nutrition had a nutrition focal person, some of those interviewed for this study did not feel confident about their roles in nutrition within their sector because they had not been academically trained in nutrition. Similarly, mid-

level leaders at the sub-national levels requested further training in nutrition to improve their ability to adequately monitor and evaluate actions across sectors to help them understand how change is occurring or failing to occur. This challenge was also more likely to be reported in districts that did not reduce stunting.

Some studies have underscored the lack of institutional resources or collaboration mechanisms as a capacity constraint for fostering collaboration with involved sectors. The case in Rwanda demonstrates that despite political commitment across sectors and institutional mechanism and platforms to foster collaboration across sectors and actors, technical capacity in nutrition and managing multisectoral agendas continued to be a challenge. This challenge may be related with the lack of general guidelines on how sectors can be more nutrition-sensitive and insufficient communication from the nutrition field to decision-makers. One ministry leader at national level interviewed in this study captured this tension between having the commitment to address nutrition but not having sufficient directed guidelines and information on how to best address nutrition in the various sectors. This respondent stated:

*“Nutritionists want us to do everything but there are still a lot of unknown things in that field. What is the contribution of agriculture to nutrition...Can they tell us that education is adding this and that to nutrition...There needs to be better communication between fields...when you look at nutrition, there is no appraisal, saying they will be producing this and this. There should be a way that we ask the Education sector to do X, and the Ministry of Agriculture to provide Y and that will get rid of malnutrition. But when we continue to look at things globally, it will remain an issue...Yes, there are these activities and that activity, and the kitchen gardens but when you bring all that together, how will stunting decrease? We need clear targets that say we will aim to move from this number to this number.”*

When asked about using research and studies to inform planned activities, the respondent continued:

*“Evaluations are done and that’s the question and the problem. You guys [researchers] are good at doing evaluations. But the problem is the plan. UNICEF comes saying that there are 38% of children who are not food secure but then they don’t tell you what we should do. And those things, those evaluations those are for the politicians but me I am a technician. I am someone who puts my hands in the mud.”*

In Rwanda, stakeholders, across the different ministries and administrative levels and sectors faced challenges on how to accomplish this and may thereby lead to some frustrations on how or why their sector should be addressing nutrition. At the decentralized levels, districts that were better able to coordinate and integrate nutrition

in different sectors experienced improvements in stunting reduction. Investing in the training on multisectoral nutrition, nutrition monitoring, and strategic skills in multisector partner coordination for nutrition focal points across sectors at the national and subnational levels decentralized levels could strengthen these actors' roles in the implementation, monitoring, and coordination of nutrition and nutrition-related activities. Such training could also strengthen the implementation of DPEMs at the decentralized level and potentially lead to further improvements in outcomes, especially in those districts where there were no or limited improvements in stunting.

Overall, Rwanda was able to address some of the aspects that have been identified to lead to successful multisectoral policies, although these continue to need strengthening (Mattessich et al., 2001). High political commitment to address nutrition in a multisectoral way was generated across stakeholders from various sectors in Rwanda. The country connected the role of nutrition to achieving national goals which facilitated the development of various forms of political commitment. Whereas focus was on commitment at the national level during the multisectoral nutrition planning phase, Rwanda used strategies to translate this commitment to nutrition to decentralized levels both rhetorically and institutionally. As a result, there were improvements in the shared understanding of undernutrition. Relevant nutrition stakeholders throughout the different administrative levels increasingly understood the multifactorial nature of nutrition and that it is influenced by underlying determinants that cut across sectors. The National Food and Nutrition Policy also improved understanding of the roles and responsibilities of different sectors and administrative



levels in addressing nutrition. Communication channels were established to foster information sharing and coordination in implementation across sectors involved in nutrition through the multisectoral coordination platforms at national and sub-national levels. Investments should be reinforced, however, to ensure that sectors understand nutrition linkages to their sectors and are operationally prepared to integrate nutrition within their sectors. Shared or pooled resources for the implementation of activities and shared accountability or reward for achieving goals are two other aspects that are characteristics of successful multisector collaboration. Although respondents described the joint implementation of programs, we were not able to sufficiently assess the distribution of funding for nutrition. Furthermore, although some respondents described increased funding for nutrition there was little mention of shared reward across sectors in the achievement of improved nutrition.

This study provided a narrative on how improvements occurred in Rwanda through the role of political commitment, coherence in nutrition actions, and perceived contributors to change in communities from the perspectives of diverse actors. This research also provided an understanding of the sub-national context and the perspectives of the mid-level leaders and frontline workers coordination and implementing nutrition programs and services. Although we cannot generalize findings from one case study, the successes and lessons learned from Rwanda can inform other countries with similar contexts, especially those with similar types of decentralized governance systems. Some of these key lessons include how to generate and translate political commitment at national and sub-national levels and the institutional response

to facilitate horizontal coherence for nutrition actions at the sub-national level. The challenges experienced in Rwanda provide an opportunity to understand the barriers that hinder further progress and can be used to refine future programs and policies.

As part of this study, we have conducted six dissemination events to share our findings with stakeholder in Rwanda at both national and sub-national levels. First, we shared preliminary results with our in-country partners and the three line ministries that co-own the national nutrition policy. After feedback from these stakeholders, we presented the study's results to the National Food and Nutrition Technical Working Group. Lastly, we conducted four workshops to disseminate results to the districts that participated in this study by province (Kigali City and the North Province districts were grouped in one workshop). The National Early Child Development Program, the successor to the National Food and Nutrition Secretariat, announced post this study that it would place nutrition focal persons within each district to support the coordination of efforts at decentralized levels, something advocated for by this study and other stakeholders in Rwanda.

For Rwanda specifically, this study can be helpful in understanding what should be further promoted in the districts experiencing improvements in nutrition and what can be enhanced in the districts where improvements were not observed. Although coherence varied across districts, there was strong political commitment to nutrition across the country. Rwanda could adopt district exchange visits to observe DPEM implementation to help build the capacity of the districts that were not performing as well on coherence. Continuing the organization of the national nutrition summits

conducted in 2009 and 2011 could reinforce engagement on nutrition and provide opportunities for nutrition stakeholders to continually address developments in nutrition, provide technical support for nutrition, and to address the challenges that remain. Such summits could also strengthen how to address nutrition across sectors. Regional forums at the provincial level could also be effective in engaging mid-level leaders on nutrition and addressing issues and challenges observed at the sub-national level. Rwanda could also include district-level scorecards on the implementation of DPEMs and their associated coordination meetings in their yearly performance contracts called Imihigo as a tool for building accountability in nutrition, assessing progress, and creating a healthy competition among districts. Resource availability, specifically for nutrition, could also be an indicator to track on the scorecards to create incentive to track nutrition budgeting at the national and decentralized levels.

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## Appendix A: Topics covered in semi-structured interviews and FGDs

**Table A.1: Topics covered in study**

Topic	National-level interviews	District-level interviews	Community-level interviews	Focus group discussions
Nutrition	X	X	X	X
Changes in nutrition	X	X	X	X
Nutrition at the district	-	X	X	X
Child health and nutrition	-	-	-	X
Women's health and nutrition	-	-	-	X
Levels of well-being	-	-	-	X
Sectors involved in nutrition	X	X	X	-
Nutrition policy environment	X	X	-	-
Changes in nutrition policy environment	X	X	-	-
Nutrition coordination	X	X	X	-
Nutrition and nutrition-related programs	X	X	X	-
Monitoring and evaluation	X	X	-	-
Nutrition budgeting	X	X	-	-
Commitment	X	X	-	-
Actor relationships	X	X	X	-

## Appendix B: Sectoral roles in nutrition

**Table B.1: Sectoral roles in nutrition according to the National food and Nutrition Policy and as perceived by government representatives interviewed for the study<sup>1</sup>**

Roles	Health		Agriculture		Local Government		Gender		Education	
	NFN P	Study	NFNP	Study	NFNP	Study	NFNP	Study	NFNP	Study
Nutrition-related education and awareness	X	X	X	X	X	X	X	X	X	X
Prevention of malnutrition	X	X	X	-	X	X	X	X	-	-
Treatment of malnutrition	X	X	-	-	-	-	-	-	-	-
Economic Development	-	-	X	X	-	-	-	-	-	-
Food security	-	-	X	X	-	-	-	-	-	-
School feeding programs	X	-	X	X	X	-	-	-	X	X
Implementing kitchen gardens	X	X	X	X	-	-	-	-	X	X
Planning and coordination in nutrition	X	X	X	-	X	X	-	-	-	-
Early childhood development	-	-	-	-	-	-	-	X	-	-

<sup>1</sup> Green boxes highlight where roles are mentioned in the NFNP but not during our study interviews. Pink boxes highlight roles mentioned during the study but not in the NFNP

## Appendix C: Nutrition programs in Rwanda

Table C.1: Nutrition-specific, nutrition-sensitive, and nutrition-related programs in Rwanda

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
Provision of milk (MIGEPROF; World Bank Group, 2017a)		-Malnourished children under 59 months	This program provides therapeutic formula milk to children who have been identified as malnourished in different communities	Nationwide		Local administrative entities development agency (LODA)	Local government	Nutrition -specific

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
<b>Community-Based Nutrition</b> (Rwanda Ministry of Health, 2010)	1996	-Children 0-59 months -PLW	Various (see below)	Nationwide	Large-scale	Health	Various (see below)	Various (see below)
		-Children 0-59 mo	Monthly weighing of children 0-59 mo	Nationwide	Large-scale	Health		Nutrition -specific
		-Mothers and caregivers of children 0-59 mo	Education sessions on health, nutrition, and hygiene	Nationwide	Large-scale	Gender	Health, Local government	Nutrition -specific
BCC through individual counseling(Rwanda Ministry of Health, 2010)		-Mothers and caregivers of children 0-59 mo	Individual counseling during GMP or during home visits	Nationwide	Large-scale	Health		Nutrition -specific

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
Cooking demonstrations (Rwanda Ministry of Health, 2010)		-Mothers and caregivers of children 6-59 mo	Monthly culinary demonstration at the village level	Nationwide	Large-scale	Health	Local government	Nutrition -specific
Community-based management of malnutrition (Rwanda Ministry of Health, 2010)		-Children 0-59 mo -PLW	Detecting moderately or severely malnourished children or mothers using MUAC and other signs of malnutrition	Nationwide	Large-scale	Health	Local government	Nutrition -specific
Promoting community participation by Triple A (Rwanda Ministry of Health, 2010)		-Community	Analysis of the state of nutrition at village level through the participation of community members and village leaders	Nationwide	Large-scale	Health	-Local government	Other



Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
Vitamin A supplementation (Ministry of Agriculture and Animal Resources, n.d.; Rwanda Ministry of Health, 2010; Times Reporter, 2017)		-Children 6-59 mo	Provision of high dose vitamin A supplements twice per year	Nationwide	Large-scale	Health		Nutrition -specific
Deworming (Rwanda Ministry of Health, 2010, 2013a)		-Children 12-59 mo --School-going children 5-15 y	Provision of deworming tablets twice per year	Nationwide	Large-scale	Health	Local government, Education	Other
Iron and folic acid supplementation (Rwanda Ministry of Health, 2010)		-Pregnant women	Provision of iron-folic acid supplements to pregnant women	Nationwide		Health		Nutrition -specific

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
School gardens(MIGEP ROF; World Bank Group, 2017a)		-School children	Integrating nutrition education, garden skills in primary and secondary school curricula, promoting school gardens	4 districts	83,000 students	Agriculture	Education, Local government, Health	Nutrition -sensitive
Kitchen gardens(MIGEP ROF; World Bank Group, 2017a; Sommers, 2017)		-Households with children < 59 mo	Promotion of a direct food source close to the home with the aim of improving dietary diversity	Nationwide		Agriculture	Local government, Health	Nutrition -sensitive
Small livestock(MIGEP PROF; World Bank Group, 2017a)		-Households in Ubudehe 1 & 2	Provision of animals for small-scale husbandry	Nationwide		Agriculture	Local government	Other

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, - sensitive, other
Early childhood development (ECD) program		-Children <59 mo	Establishment of ECD centers where children receive care and in some cases, porridge			Gender	Health, Local government	Other
<b>Community-based health insurance</b> (USAID, 2016)	Pilot 1999 National 2004	-All Rwandans	Roll-out of a national health insurance plan	Nationwide	Large-scale	Finance	Health	Other
<b>One Cow per Family</b> (Ministry of Agriculture and Animal Resources, n.d.)	2006	- Poor households	-Distribution of cows	Nationwide		Agriculture	Line ministries	Other
<b>Crop intensification program (CIP)</b> (MINAGRI, n.d.)	2007	-Farmer households	Various (see below)	Nationwide		Agriculture		Other

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, - sensitive, other
Provision of subsidized fertilizer and free seed(MINAGRI, n.d.)		-Households in Ubudehe 1 & 2	Limited quantity of improved seeds distributed, and prices for fertilizers also subsidized by the government	All districts		Agriculture		Other
Land use consolidation program(MINAGRI, n.d.)	2007		Growing one crop in the same area by different farmers, with each farmer owning his own plot; crop choice motivated by agro-bio climate and economic potential	All districts		Agriculture		Other

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
<b>Social safety nets (direct cash transfers) through Vision 2020 Umurenge Program</b> (Government of Rwanda, 2013; Ministry of Local Governance, 2011)	2008	-Vulnerable families and households (Ubudehe 1 & 2)	Provides direct support to poor families with no adult labor capacity	All districts		Local government		Other
<b>One cup of milk per child</b> ((RAB), 2016; MIGEPROF; World Bank Group, 2017a)	2010	- Children aged 3 to 9 y	Provide milk to school-going children	6 districts in 2010 15 districts in 2017	78,646 pupils as of 2017	Agriculture -other documents says local government	Education, Health, Local government	Nutrition -specific

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
<b>Home Grown School Feeding Program</b> (Ministry of Education, 2014; Times Reporter, 2016)	2016	Primary and lower secondary school children	Provide daily school meals consisting of either maize, beans, and vegetable oil or a fortified porridge	4 districts: Karongi, Rutsiro, Nyamagabe, Nyaruguru	Small-scale, ~2% coverage	Education	Agriculture	Nutrition specific
<b>One Thousand Days in the Land of a Thousand Hills (1,000 Days Campaign)</b> (Rwanda Ministry of Health, 2014)	2013	-Children <5 y -PLW	Nutrition counseling related to best health, nutrition and hygiene practices during the first 1,000 days conducted through mass media and community outreach	Nationwide	Large-scale	Health	Gender, Agriculture, Local government (Social Cluster Ministries)	Nutrition -specific

Program	Year began	Target group(s)	Intervention(s)	Implementation area	Scale	Lead sector	Other sectors involved	Nutrition -specific, -sensitive, other
<b>Home fortification with micronutrient powders (MNP) (Ongera)</b> (University of British Columbia, 2014)	2014	-Children 6-23 months	Provision of 10 MNP sachets per month to all children 6-23 mo	All districts as of 2017 (2 districts in 2014, 18 in 2015, 19 in 2016, 30 in 2017)	Large-scale	Health		Nutrition -specific
<b>Fortified food blend program (Shisha Kibondo)</b> (Times Reporter, 2017)	2017	-Children (6-23 mo) in Ubudehe 1 PLW in Ubudehe 1	Fortified foods provided to target groups	Nationwide		Health		Nutrition -specific