



Understanding the sociopolitical and epidemiological dimensions of malnutrition in Viet Nam

A dissertation submitted by

Karin Lapping, M.P.H

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in
Food Policy and Applied Nutrition

Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy
TUFTS UNIVERSITY
April 2012

Dissertation Committee:

Patrick Webb, Ph.D., Chair
Edward A. Frongillo, Ph.D.
Jennifer Coates, Ph.D.

© 2012 Karin Lapping

All rights reserved

Acknowledgements

I owe thanks to many people for their support and guidance in completing this research. My work benefitted from a supportive committee. I would like to first thank my Committee Chair, Patrick Webb, PhD. Patrick's guidance and support over the years has been invaluable. I have benefitted from his breadth of knowledge, especially about nutrition policy and what it takes to actualize progress at the country level. Patrick always provided constructive feedback and unwavering support and belief in my work and abilities. This research also benefitted tremendously from the participation of Edward Frongillo, PhD. Ed was tireless in providing detailed feedback and guidance. He was always upbeat in his tenor. He was able to put both the dissertation process and my efforts into perspective allowing me to see the growth and progress that I was making. Ed's knowledge of Viet Nam and his tremendous statistical skills and conceptual thinking were put to good use. Jennifer Coates, PhD was an invaluable member of my committee. She required clarity of thought and writing that was challenging resulting in a better product. Jennifer provided detailed comments that strengthened each draft and this work benefitted greatly from her insights and suggestions. I have been very fortunate to be guided by this committee and count them as colleagues and friends.

Several other individuals provided considerable guidance and support at critical times including Purnima Menon, Lisa Studdert, Lisa Troy and Rahul Rawat, all knew what it took to complete a PhD and were with me along the journey. This work could not have been completed without excellent partners from the National Institute of Nutrition in Viet Nam including Minh Nguyen and Phuong Hyunh and Save the Children in Viet Nam. I

also benefitted from a supportive work environment at Save the Children and Alive & Thrive and I'd like to acknowledge in particular David Oot, Paige Harrigan, Eric Swedberg, Pham Bich Ha, and Jean Baker. They and many others were terrific supporters over the years and often took on extra work to help me finish the dissertation.

Many of my close friends including Heike Sommer, Jesse Hartness, Kathryn Bolles, Megan Steinke, Amy Weissman, Monique Sternin, and my brother Hans Lapping, and sister-in-law Veronika Mieszkowska-Lapping deserve special thanks. Last but not least, my parents Mark and Joyce Lapping whose understanding, encouragement, and support throughout this process made all the difference.

Abstract

Globally, progress in reducing malnutrition is slow, remains uneven, and is not always sustained. The deleterious short-term and long-term impacts of malnutrition are well documented. There is unprecedented global recognition and consensus that it is necessary to scale up efforts to address malnutrition. Examining the sociopolitical and epidemiological dimensions of malnutrition both nationally and sub-nationally is essential to inform effective action. Little research in nutrition has been undertaken to understand the sociopolitical factors and processes that determine national policy formulation and subsequent actions at the sub-national level. The biological, epidemiological, and implementation dimensions of nutrition policy and the programming that flows from it has been researched extensively, however, there is limited investigation of the determinants of malnutrition in a country and how they differ over time and space.

The rapidly changing country of Viet Nam provides a rich setting in which to examine the epidemiological and sociopolitical dimensions of malnutrition in part because Viet Nam should be doing better than it is with regards to reducing stunting. Viet Nam is also a context where the translation of national policy directives into action on the ground is challenged by a relatively new process of decentralization of planning and action.

This dissertation is comprised of three analyses. Using a participant-observer, change-agent model, the first analysis sought to understand why and how the national nutrition agenda moved forward between 2006 and 2008, years when the lead researcher lived in Viet Nam. Findings showed that rapid nutrition policy advancement was possible if purposeful, contextually sensitive, strategies are used where favorable conditions exist, or can be created. The second analysis examined how the provincial planning process for nutrition occurred in eight provinces. A qualitative case-study methodology was used and concluded that there was little variation in the process across provinces. The main barriers to effective planning were: 1) a top down approach, 2) limited human capacity at sub-national levels, and 3) difficulty in integrating multiple sectors. The third analysis investigated whether the relative importance of the determinants of height-for-age (HAZ) in Viet Nam changed over a ten year period and if the determinants of HAZ differ depending upon location in the country. Using regression techniques, the 1997 and 2006 Viet Nam Living Standards Surveys were analyzed. Analyses revealed that the relationships between the determinants and HAZ changed over time and in 2006 differed by region.

The dissertation examined the continuum of issues related to national agenda-setting for nutrition, the translation of national agendas and plans into provincial actions, and the relevance of differences of determinants across regions and over time for program planning and prioritization of actions. Findings indicated that policy advancement is possible in a short amount of time, that the sociopolitical dimensions may influence the success or failure of efforts, and contextually relevant action at the sub-national level is needed. These findings are particularly important for countries that are challenged to make the right policy choices at the national level and to translate these into effective action at the sub-national level.

Table of Contents

List of Figures	vi
List of Tables	vi
Chapter 1: Introduction	1
1.1 Summary of the Problem and Its Significance	1
1.2 Research Gaps.....	2
1.3 Viet Nam: Rapid Growth Without Commensurate Declines in Malnutrition	4
1.4 Research Objectives and Research Questions	5
1.5 Structure of the Dissertation	6
1.6 References.....	7
Chapter 2: Review of the Literature.....	11
2.1 Introduction and Scope of the Review.....	11
2.2 Recent Approaches to Addressing Malnutrition.....	11
2.3 Determinants of Malnutrition	17
2.4 Decentralization	22
2.5 Health and Nutrition Policy Analysis	29
2.6 Conclusions.....	35
2.7 References.....	37
Chapter 3: Article #1 Prospective Analysis of the Recent Evolution of the National Nutrition Agenda in Viet Nam.....	44
1 Introduction.....	45
2 Methods.....	46
3 Results.....	54
4 Discussion.....	70
References.....	75
Chapter 4: Article #2 Provincial Level Planning Processes for Nutrition in Decentralizing Viet Nam	83
1 Introduction.....	83
2 Methods.....	88
3 Results.....	92
4 Discussion.....	108
5 Conclusion	113
References.....	118
Chapter 5: Article #3 Determinants of Height-for-age in Viet Nam: Temporal and Spatial Change Between 1997 and 2006	121
Introduction.....	121
Methods	124
Data.....	126
Results.....	130
Discussion.....	133
References.....	139

Appendix 1.....	150
Chapter 6: Summary and Discussion.....	152
6.1 Key Findings.....	152
6.2 Limitations.....	155
6.3 Implications.....	156
6.4 Future Research.....	158
6.5 Recommendations.....	160
6.6 Conclusions.....	162
6.7 References.....	163
Appendices.....	165
Appendix 1: MNI In-Depth Interview Guide.....	165
Appendix 2: MNI In-Depth Interview End of Project Guide.....	166
Appendix 3: Net Map National Interview Guide.....	169
Appendix 4: Net Map Provincial Interview Guide.....	176

List of Figures

Figure 2.1: UNICEF Framework of the Causes of Malnutrition.....	18
Figure 2.2: Health Policy and Systems: Alternate Perspectives.....	34
Figure 4.1: Provincial Level GOV Units Involved in Planning.....	117

List of Tables

Table 3.1: Event-Level Analysis of Strategies and Results Related to the National Nutrition Agenda in Viet Nam During 2006–2008.....	78
Table 3.2: Factors Affecting Nutrition Policy Progress in Viet Nam During 2006–2008.....	81
Table 4.1: Factors Influencing Sub-national Planning Processes.....	115
Table 4.2: Steps in the Policy Process.....	116
Table 5.1: Viet Nam Living Standards Surveys Variables with Potential Influence on HAZ Organized by Contextual Level.....	143
Table 5.2: Key Characteristics of the 1997 and 2006 Viet Nam Living Standards Surveys Sample.....	144
Table 5.3: Key Characteristics of 1997 Viet Nam Living Standards Survey by Region.....	146
Table 5.4: Key Characteristics of 2006 Viet Nam Living Standards Survey by Region.....	147
Table 5.5: Determinants of HAZ in the 1997 and 2006 Viet Nam Living Standards Surveys.....	148

Table 5.6: Association of HAZ with Child's Age and Dependency Ratio Differs by region in 2006 Viet Nam Living Standards Survey Data	149
Table A1: Association Between Region and Ethnicity in the 1997 Viet Nam Living Standards Survey	150
Table A2: Association Between Region and Ethnicity in the 2006 Viet Nam Living Standards Survey	151

Chapter 1: Introduction

1.1 Summary of the Problem and Its Significance

Globally, progress is insufficient to achieve Millennium Development Goal (MDG) 1 which seeks to halve extreme poverty and hunger (Lateef et al., 2011). Progress in reducing malnutrition is slow, remains uneven, and is not always sustained (de Onis, Blössner, & Borghi, 2012; Headey, 2011). In 2010, 27% or an estimated 171 million children under five were stunted (low height-for-age) and 16% or 104 million children under five were underweight (low weight-for-age; Lutter et al., 2011). The proportion of stunted children fell from 40% in 1990 to 27% in 2012, an average of only 0.6 percentage points per year (Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup-Andersen, 2008) and absolute numbers of stunted children are increasing in some parts of Africa due to stagnation in reductions (de Onis et al., 2012). This lack of progress will impede achieving other MDGs (Gillespie & Haddad, 2003; Lutter et al., 2011).

The deleterious impacts of malnutrition both in the short term and long term are well documented (Black et al., 2008; Victora et al., 2008). Malnutrition is the underlying cause of 3.5 million deaths and accounts for 35% of the total disease burden in children under five worldwide (Black et al., 2008). Damage suffered in early life can lead to diminished immune response, reduced adult size, reduced intellectual ability, lower economic productivity and poorer reproductive outcomes (Black et al., 2008). The costs to society are well established (Haddad, Alderman, Appleton, Song, & Yohannes, 2003; Save the Children, 2012) and nutrition actions constitute some of the most cost effective

development investments (Behrman, Alderman, & Hoddinott, 2004; Horton, Shekar, McDonald, Mahal, & Brooks, 2010).

In the past few years there has been unprecedented global recognition and consensus that it is necessary to scale up efforts to address malnutrition (Bezanson & Isenman, 2010; Black et al., 2008; Lateef et al., 2011; Nabarro, Menon, Ruel, & Yosef, 2012; Vander Meulen & Mucha, 2012; World Bank, 2006). To inform the urgent action, including “the what to do” and the “how to do it,” required to reduce malnutrition it is necessary to examine the epidemiological, programmatic, and sociopolitical dimensions of nutrition program and policy (Menon et al., 2011).

1.2 Research Gaps

Effective action to reduce malnutrition can only be taken by understanding the nature of the problem. We need to know and understand the primary determinants (Smith & Haddad, 2000). There is an abundance of research in recent years that has examined the biological, epidemiological, and implementation dimensions of public health and nutrition policy, and of the programming that flows from it at a global level and across countries and within countries (Bhutta et al., 2008; Black et al., 2008; Bryce et al., 2008; Linnemayr, Alderman, & Ka, 2008; Morris, Cogill, & Uauy, 2008; Pathak & Singh, 2011; Pelletier et al., 2011; Sheikh et al., 2011; World Bank, 2006). Additionally, there is broad agreement on critical direct actions for malnutrition, driven by the biological evidence base (Bhutta et al., 2008). Little work, however, exists that examines how the determinants in a country have changed over time and space (personal correspondence, D. Headey, 2012) especially in rapidly changing societies.

The sociopolitical characteristics of public health issues, including nutrition, are at least as significant in determining malnutrition outcomes as are the biological, epidemiological, and implementation characteristics (Menon et al., 2011; Shiffman, 2007a; Sumner, Lindstrom, & Haddad, 2008). Limited research in nutrition has been undertaken to understand the sociopolitical factors and processes that influence and determine national policy formulation and subsequent actions, including the ability to generate effective policy traction and resources (Pelletier et al., 2011). Many public health researchers are reluctant to actively engage with policy and politics (Navarro, 2008). Because of a recognition that a lack of engagement around these issues is holding back progress, a better understanding of policy processes would focus attention on many points of possible influence on public policy and highlight the relationship between policy and action, which involves negotiations and interactions in social and political contexts (Bernier & Clavier, 2011; Oliver, 2006; Sheikh et al., 2011). Without further investigation of the full policy spectrum and subsequent informed actions, the significant resources in “documenting the efficacy of nutrition interventions are unlikely to produce sustainable reductions in undernutrition” (Pelletier et al., 2011). Responding to these gaps in the literature informed the development of the research agenda and shaped the key questions posed in this dissertation.

Often nutrition policies at national level do not translate into effective policy or action at the sub-national level (e.g., province or region; United Nations Capital Development Fund, 2005). Increasingly decision making and resource allocation are happening at the provincial level and the province is the administrative unit of intervention (Australian Agency for International Development, 2002; World Bank, 2005). While there are case

studies examining planning in decentralized settings (Gilson et al., 2006; Maluka et al., 2011; Men et al., 2005) to our knowledge there are no examples in the peer reviewed literature that explicitly look at nutrition planning sub-nationally. Thus, little is known about the planning process and the facilitators and barriers to effective planning, as well as what evidence base is used to inform planning. Better understanding of how the planning process works at provincial level will help in improvement of governance and service provision as planning at a sub-national level can be a critical bottleneck in the implementation of national policy.

1.3 Viet Nam: Rapid Growth Without Commensurate Declines in Malnutrition

Viet Nam provides a rich setting in which to examine these dimensions in part because there is agreement that Viet Nam should be doing better than it is with regards to reducing stunting (Koch & Linh, 1998; Thang & Popkin, 2003). Viet Nam is an example of a country where rapid economic growth has not always been associated with expected declines in malnutrition. In the early 1990s, over half the population lived in poverty while in 2008 this number was 14.5% of the population (Vietnamese Academy of Social Sciences, 2012). *Do Moi*, or “renovation,” a set of economic and social policies that transformed Viet Nam from a socialist command economy to a socialist market economy, is widely attributed with producing robust economic growth and societal change (Hop & Khan, 2002; Molini, 2006). At the beginning of the reform process in 1985, almost 60% of Vietnamese children under five were stunted (National Institute for Nutrition [NIN], 1986). By 1998, 41% of children under five were stunted, and in 2006 it was 36.8% (General Statistics Office, 2006). Despite these reductions, Viet Nam’s stunting rates

compare unfavorably with countries of a similar economic level especially since Viet Nam has relatively favorable social indicators as reflected in the Human Development Index (United Nations Development Programme, 2011). Thus, while Viet Nam compares well regionally with regards to some health indicators like infant and under five mortality, the prevalence of malnutrition is still unacceptably and uncharacteristically high for a country at this stage of economic development, and falls behind other developing countries regionally and globally (Wagstaff, van Doorslaer, & Watanabe, 2001).

Viet Nam is also a context where the translation of national policy directives into action on the ground is challenged by a relatively new process of decentralization of planning and action. Thus, Viet Nam offers an excellent context in which to study the continuum of issues related to national agenda-setting for nutrition, the translation of national agendas and plans into provincial actions, and the relevance of differences of the nature of determinants across regions and over time for program planning and prioritization of actions. These aspects are all relevant to other countries which are struggling to make the right policy choices at the national level and to translate these into effective and contextually relevant actions at the sub-national levels.

1.4 Research Objectives and Research Questions

The dissertation aims to unpack the sociopolitical and epidemiological dimensions of malnutrition both nationally and sub-nationally. To accomplish this, the research objectives are to better understand (1) why and how the national nutrition agenda moved forward between 2006-2008, (2) the provincial level planning processes for nutrition and

(3) how temporal and spatial dimensions influence malnutrition. We posed three sets of questions in relation to each of the overarching objectives:

1) *Why and how the national nutrition agenda moved forward:* What strategies were employed by actors to move the agenda forward between 2006-2008? What factors shaped the movement of this agenda? How did these factors and strategies interact over time to move the nutrition agenda forward?

2) *How do provincial planning processes for nutrition operate:* How did the provincial planning process for nutrition occur in eight provinces in Viet Nam, and did the planning process differ across provinces? What factors influenced the planning process? Did those involved in the planning process perceive it to be useful?

3) *Do the determinants of height-for-age differ over time and space:* Has the relative importance of the determinants of height-for-age in Viet Nam has changed in the past ten years? Did the determinants of height-for-age differ depending upon location in the country?

1.5 Structure of the Dissertation

The structure of the dissertation is as follows. The next chapter (2) presents a critical review of the literature on global, national, and sub-national issues related to assisting progress in reducing malnutrition, and a brief methodological review of health and nutrition policy analysis. The subsequent chapters (3–5) present the empirical research. The final chapter (6) discusses implications of the research conducted for this dissertation, and provides recommendations for future research.

1.6 References

- Australian Agency for International Development. (2002). *Vietnam poverty analysis*. Canberra, Australia.
- Behrman, J. R., Alderman, H., & Hoddinott, J. (2004). *Hunger and malnutrition* (Copenhagen Consensus Challenge Paper). Retrieved from http://plasma-nrg.com/PDF/Hunger_and_Malnutrition.pdf
- Bernier, N., & Clavier, C. (2011). Public health policy research: Making the case for a political science approach. *Health Promotion International, 26*, 1090–1116.
- Bezanson, K., & Isenman, P. (2010). Scaling up nutrition: A framework for action. *Food and Nutrition Bulletin, 31*, 178–186.
- Bhutta, Z. A., Ahmed, T., Black, R. E., Cousens, S., Dewey, K., Giugliani, E., Shekar, M. (2008). What works? Interventions for maternal and child undernutrition and survival. *The Lancet, 371*, 417-440.
- Black, R. E., Allen, L. H., Bhutta, Z. A., Caulfield, L. E., de Onis, M., Ezzati, M., Rivera, J. (2008). Maternal and child undernutrition: global and regional exposures and health consequences. *The Lancet, 371*, 243–260.
- Bryce, J., Coitinho, D., Darnton-Hill, I., Pelletier, D., & Pinstrip-Andersen, P. (2008). Maternal and child undernutrition: Effective action at national level. *The Lancet, 371*, 510–526.
- de Onis, M., Blössner, M., & Borghi, E. (2012). Prevalence of stunting among pre-school children 1990–2020. *Public Health Nutrition, 15*, 142–148.
- General Statistics Office. (2006). *Viet Nam Living Standards Survey 2006: Preliminary report*. Hanoi, Viet Nam.
- Gillespie, S. R. (2003). *Nutrition and the MDGs: The relationship between nutrition and the millennium development goals: A strategic review of the scope for DFID's influencing role* (IFPRI report). Washington, DC: International Food Policy Research Institute.
- Gillespie, S. R., & Haddad, L. (2003). *The double burden of malnutrition in Asia and the Pacific*. New Delhi, India: Sage.
- Gilson, L., Erasmus, E., Kamuzora, P., Mathews, V., Ngulube, T. J., & Scott, V. (2006). *Applying policy analysis in tackling health-equity related implementation gaps* (Equinet Discussion Paper 28). Cape Town/Johannesburg, South Africa: Health Economics Unit/Centre for Health Policy.

- Haddad, L., Alderman, H., Appleton, S., Song, L., & Yohannes, Y. (2003). Reducing child malnutrition: How far does income growth take us. *World Bank Economic Review*, *17*, 107–131.
- Headey, D. (2011). Turning economic growth into nutrition-sensitive growth (Conference Paper #6). Washington DC: International Food Policy Research Institute.
- Hop, L., & Khan, N. (2002). Malnutrition and poverty alleviation in Viet Nam during the last period 1985–2000. *Asia Pacific Journal of Clinical Nutrition*, *11*, S331–S334.
- Horton, S., Shekar, M., McDonald, C., Mahal, A., & Brooks, J. (2010). *Scaling up nutrition: What will it cost?* Washington DC: The World Bank.
- Koch, S., & Linh, N. B. (1998). Child malnutrition. In D. Haughton, J. Haughton, & N. Phong (Eds.), *Living standards during an economic boom Viet Nam 1993–1998. The case of Viet Nam* (pp. 63–78). Hanoi: UNDP Statistical.
- Lateef, A., Beckmann, D., Nabarro, D., Shekar, M., Taylor, A., & Walt, G. (2011). Building momentum to scale up nutrition. *Food and Nutrition Bulletin*, *32*, S53–55.
- Linnemayr, S., Alderman, H., & Ka, A. (2008). Determinants of malnutrition in Senegal: Individual, household, community variables, and their interaction. *Economics & Human Biology*, *6*, 252–263.
- Lutter, C. K., Daelmans, B. M. E. G., de Onis, M., Kothari, M., Ruel, M. T., Arimond, M., Borghi, E. (2011). Undernutrition, poor feeding practices, and low coverage of key nutrition interventions. *Pediatrics*, *128*, e1418–e1427. doi:10.1542/peds.2011-1392
- Maluka, S., Hurtig, A. K., San Sebastian, M., Shayo, E., Byskov, J., & Kamuzora, P. (2011). *The International Journal of Health Planning and Management*, *26*, 102–120.
- Men, B., Grundy, J., Cane, J., Rasmeay, L. C., An, N. S., Soeung, S. C., Biggs, B. A. (2005). Key issues relating to decentralization at the provincial level of health management in Cambodia. *The International Journal of Health Planning and Management*, *20*, 3–19.
- Menon, P., Frongillo, E. A., Pelletier, D. L., Stoltzfus, R. J., Ahmed, a M. S., & Ahmed, T. (2011). Assessment of epidemiologic, operational, and sociopolitical domains for mainstreaming nutrition. *Food and Nutrition Bulletin*, *32*, S105–114.
- Molini, V. (2006). *Food security in Vietnam during the 1990s: The empirical evidence*. Helsinki, Finland: United Nations University World Institute for Development Economics Research.

- Morris, S. S., Cogill, B., & Uauy, R. (2008). Effective international action against undernutrition: Why has it proven so difficult and what can be done to accelerate progress? *The Lancet*, *371*, 608–621.
- Nabarro, D., Menon, P., Ruel, M. T., & Yosef, S. (2012 forthcoming). *Scaling up nutrition (SUN): A global movement to accelerate progress in reducing maternal and child malnutrition*.
- National Institute for Nutrition. (1986). *Annual surveillance statistics*. Hanoi, Viet Nam.
- Navarro, V. (2008). Politics and health: A neglected area of research. *European Journal of Public Health*, *18*, 354–355.
- Oliver, T. (2006). The politics of public health policy. *Annual Review of Public Health*, *27*, 195–233.
- Pathak, P. K., & Singh, A. (2011). Trends in malnutrition among children in India: Growing inequalities across different economic groups. *Social Science & Medicine*, *73*, 576–585.
- Pelletier, D., Frongillo, E. A., Gervais, S., Hoey, L., Menon, P., Ngo, T., Ahmed, T. (2011). Nutrition agenda setting, policy formulation and implementation: Lessons from the Mainstreaming Nutrition Initiative. *Health Policy Plan*, *27*, 19–31.
- Save the Children. (2012). *A life free from hunger: Tackling child malnutrition*. London, UK.
- Sheikh, K., Gilson, L., Agyepong, I. A., Hanson, K., Ssengooba, F., & Bennett, S. (2011). Building the field of health policy and systems research: Framing the questions. *PLoS Med*, *8*(8): e1001073. doi:10.1371/journal.pmed.1001073
- Shiffman, J. (2007a). Generating political priority for maternal mortality reduction in 5 developing countries. *American Journal of Public Health*, *97*, 796–803.
- Smith, L. C., & Haddad, L. (2000). *Explaining child malnutrition in developing countries: A cross-country analysis*. Washington DC: International Food Policy Research Institute.
- Sumner, A., Lindstrom, J., & Haddad, L. (2008). Why is undernutrition not a higher priority for donors? (ID 21, Insight Series # 373). Brighton, UK: Institute of Development Studies.
- Thang, N. M., & Popkin, B. M. (2003). In an era of economic growth, is inequity holding back reductions in child malnutrition in Vietnam? *Asia Pacific Journal of Clinical Nutrition*, *12*, 405–410.

- United Nations Capital Development Fund. (2005). *Delivering the goods: Building local government capacity to achieve the Millennium Development Goals: A practitioner's guide from UNCDF's experience in lesser developed countries*. Retrieved from http://www.uncdf.org/sites/default/files/Download/UNCDF_LDG2.pdf
- United Nations Development Programme. (2011). *Human development report 2011: Sustainability and equity: A better future for all*. Retrieved from <http://hdr.undp.org/en/reports/global/hdr2011/download/en/>
- Vander Meulen, R., & Mucha, N. (2012). *Linking nutrition and health: Progress and opportunities* (Briefing paper #14). Washington DC: Bread for the World Institute.
- Victora, C. G., Adair, L., Fall, C., Hallal, P. C., Martorell, R., Richter, L., & Sachdev, H. S. (2008). Maternal and child undernutrition: consequences for adult health and human capital. *The Lancet*, 371, 340–357.
- Vietnamese Academy of Social Sciences. (2012, October). *Vietnam Programmatic Poverty Assessment (PPA): Poverty, vulnerability, and inequality in Vietnam*. Hanoi, Viet Nam.
- Wagstaff, A., van Doorslaer, E., & Watanabe, N. (2001). *On decomposing the causes of health sector inequalities with and application to malnutrition inequalities in Vietnam* (World Bank Policy Research Working Paper). Washington, DC: World Bank.
- World Bank. (2005). *East Asia decentralizes. Making local governments work in East Asia*. Washington DC.
- World Bank. (2006). *Repositioning nutrition as central to development: A strategy for large-scale action*. Washington, DC: World Bank Directions in Development.

Chapter 2: Review of the Literature

2.1 Introduction and Scope of the Review

As efforts to address malnutrition accelerate it is important that both sociopolitical factors and a sound understanding of the determinants of malnutrition are taken into consideration. The sociopolitical aspects of nutrition policy and planning at both national and sub-national level have not been widely explored. Also, while there is an abundance of analyses on the determinants at global and regional level there is little that looks at how in a country setting the determinants of malnutrition have changed over time and space. This literature review was conducted to examine the existing evidence around these issues.

The first three sections present the literature, both sociopolitical and epidemiological dimensions of malnutrition, at the global, national, and sub-national levels with a focus on new initiatives (2.2), determinants (2.3), and decentralization (2.4). The last section (2.5) presents a brief methodological review of health and nutrition policy analysis.

2.2 Recent Approaches to Addressing Malnutrition

2.2.1 Lack of Progress

Through a systematic review of the efficacy or effectiveness of 45 possible interventions researchers identified a package of cost-effective interventions that, if implemented at scale in the 36 countries that are home to 90% of the world's malnourished children, would prevent significant morbidity and mortality (Behrman, Alderman, & Hoddinott, 2004; Bhutta et al., 2008; Black et al., 2008; Horton, Shekar,

McDonald, Mahal, & Brooks, 2010). Despite this evidence presented in the 2008 *Lancet Series on Maternal and Child Undernutrition* there is consensus that progress to date in reducing malnutrition is insufficient (Black et al., 2008; Lutter et al., 2011; World Bank, 2006).

Nutrition, viewed as an “afterthought” in development, has been chronically underfunded and under-emphasized by donors and developing country governments (Black et al., 2008). High levels of malnutrition are seen as normal and not recognized as an urgent problem requiring government attention and response (Benson, 2008). Nutrition has been characterized by the World Bank as being “trapped in a low priority cycle” (Natalicchio, Garrett, Menno-Mulder, Ndegwa, & Voorbraack, 2009) meaning that as an issue it has little visibility and resides within small, underfunded departments which possess little coordination and capacity to deliver services further exacerbated by fragmented and inconsistent donor support (Morris, Cogill, & Uauy, 2008; Natalicchio et al., 2009).

The World Bank’s *Repositioning Nutrition as Central to Development* argued that failure to reduce malnutrition is due in part to lack of sustained government commitment and low demand from communities for services (World Bank, 2006). Using a case-study methodology, Benson analyzed this issue in four African countries in 2008. The results linked lack of sustained commitment and low demand to three core issues: (1) poor understanding of the nature and causes of malnutrition, (2) political weakness of the malnourished, and (3) the multisectoral nature of malnutrition (Benson, 2008). Bryce, Coitinho, Darnton-Hill, Pelletier, and Pinstруп-Andersen (2008) identified seven key challenges to accelerating reductions in malnutrition at country level: (1) making and keeping nutrition a priority, (2) implementing the right interventions at sustained scale,

(3) not diluting efforts and impact by implementing interventions that have been proven ineffective or are inappropriate for the context, (4) acting at scale, (5) targeting and reaching those in need, (6) making decisions based on data both process and results, and (7) building strategic (i.e., knowledge, skills, leadership) and operational capacity (i.e., program design, policy oriented research; Bryce et al., 2008).

At global level Morris et al. identified core problems related to the international nutrition system which they asserted were impeding progress including: (1) lack of high level interest, (2) inadequate human resources, (3) unpredictable and inflexible financing (4) inadequate strategies, (5) limited sticking power of policies, (6) structures that impeded collaboration, and (7) weak coordination and linkages with countries (Morris et al., 2008). These analyses culminated in calls for a new global governance structure, a more effective United Nations, fewer parallel organizations with fewer gaps in mandates, more investment in capacity strengthening in high burden countries, and research leadership on topics that matter (Morris et al., 2008). The *Lancet* series argued that addressing these impediments would “transform the political salience of undernutrition” (Morris et al., 2008). This is currently happening through several initiatives including Scaling Up Nutrition (SUN), the United Nations Renewing Efforts Against Child Hunger (REACH) and the U.S. government’s global hunger and food security nutrition initiative, Feed the Future (FtF).

2.2.2 Global Efforts to Address Malnutrition

Nutrition is increasingly being recognized as critical to broader economic, social and human development (Black et al., 2008; Nabarro, Menon, Ruel, & Yosef, 2012; World Bank, 2006). Galvanizing and capitalizing on political commitment is critical (Bezanson

& Isenman, 2010; Save the Children, 2012) to progress both at global and national level. Bryce et al. (2008) defined political commitment as “allocation of human, financial and organizational resources for effective actions at sufficient scale and intensity to improve nutrition in populations of women and children” (Bryce et al., 2008). This extended definition acknowledges the link between political attention, political commitment, and systemic commitments which Pelletier et al. (2011) note are seldom made. Current political attention and commitments are translating into investment and action, examples include SUN, REACH, and FtF.

SUN is a response from the international community to galvanize efforts around nutrition. It provides a platform for multistakeholder collaboration globally and at the national level for generating additional donor and country commitment and resources for nutrition. SUN is engaging in communications and advocacy as well as putting into place leadership, stewardship and organizational arrangements to help maintain momentum (Nabarro et al., 2012). The movement, launched in 2010, is stimulating national leaders to focus on nutrition and commit to effective national policies and programs. A guiding principle of SUN is that “what ultimately matters is what happens at the country level” (Nabarro et al., 2012). National leadership for nutrition, alignment of financial and technical resources to support nutrition sensitive national plans, and broad ownership of nutrition and development goals (Nabarro et al., 2012). With endorsement of over 100 organizations SUN has achieved high level commitments in 26 countries (Nabarro et al., 2012). These commitments have translated into updated and approved national nutrition plans in 22 countries with multistakeholder platforms established in 20 of the countries. The presence of nutrition policies and plans can contribute to making nutrition a priority

as they are endorsed by governments, convey their strategy regarding nutrition and specify actions and usually include targets, timelines, and budgets (Bryce et al., 2008). Policies and plans are critical ingredients in reducing malnutrition, however, activity needs to signify political commitment to implementation evidenced by appointment of authority, accountability, and allocation of resources to appropriate ministries as well as support to and supervision of the development of operational plans and strategies (Pelletier et al., 2011).

The guiding principles that SUN incorporates are reflected in a variety of other efforts including REACH and FtF. REACH builds upon prior work of the Ending Child Hunger and Undernutrition Initiative and represents the combined efforts of the four key United Nations food and nutrition agencies: Food and Agriculture Organization (FAO), World Health Organization (WHO), United Nations Children's Fund (UNICEF) and World Food Program (WFP) thus, delivering upon the UN commitment to work as one to enhance aid effectiveness (Pearson & Ljungqvist, 2011). REACH, like SUN, attempts to link multiple sectors and develop capacity in countries to support country-led processes (REACH, 2011). REACH describes itself as an "integral part of the SUN movement" and contributing to the "1000 Days for Change" initiative led by the U.S. State Department and Irish Government (REACH, 2011). By the end of 2012 REACH will be working in 12 countries to support a documented reduction in MDG 1 by 2015 (REACH, 2011). The U.S. government, aligning with the other efforts, seeks to address MDG 1 through FtF. FtF's guiding principles are consistent with SUN with an explicit focus on linking agriculture and nutrition to achieve MDG 1 in 20 focal countries (www.feedthefuture.gov).

The focus of these initiatives is on country level action. They maintain that plans should be country owned and designed based upon contextual needs and capacities (Bezanson & Isenman, 2010). These plans should scale up both proven direct nutrition interventions, focused on the critical time period of prepregnancy through two years of life, and multisectoral approaches which integrate nutrition sensitive actions into sectors like agriculture and social protection (Bezanson & Isenman, 2010). These recommendations are derived from a large global body of literature documenting the epidemiology of malnutrition (Bhutta et al., 2008; Black et al., 2008; Horton et al., 2010; Lutter et al., 2011; Victora, de Onis, Hallal, Blössner, & Shrimpton, 2010; World Bank, 2006).

Bhutta et al. in 2008 concluded that although available interventions can make a clear difference in the short term, elimination of stunting will also require long-term investments to improve education, economic status and the empowerment of women (Bhutta et al., 2008). Less certain are the strategies of how to implement actions at scale and what is the most effective mix of interventions. Filling this perceived gap in implementation research are projects like the UK Department for International Development funded Transform Nutrition and Bill and Melinda Gates Foundation supported Alive and Thrive that seek to innovate and scale up nutrition interventions to inform the evidence base. Core to this understanding of what works at scale is reconciliation with context. Through a document review and country visits, Houston (2010) externally reviewed the Mainstreaming Nutrition Initiative (MNI), a precursor to some of these other projects. MNI's efforts focused on developing, promoting, and supporting the mainstreaming of nutrition at the policy and program level in 7 developing countries. Houston noted that "many approaches presume a solution without a context

specific analysis this is often found when scientific research translates into internationally accepted intervention” (Houston, 2010). Houston also stated that the translation of research is important since basic research cannot be done for every context. He argues that the national context does affect not only the strength of findings, but also the approach for implementation and understanding the local context, both from a sociopolitical perspective and from an epidemiological one (Houston, 2010). The emphasis of recent initiatives is often at national level in countries. This may not be sufficient to reduce malnutrition since there is growing acknowledgment that the sub-national level is an important locus of action. Furthermore, these efforts may make assumptions about the determinants of malnutrition. These issues are explored further in this literature review and provide the basis of the dissertation research.

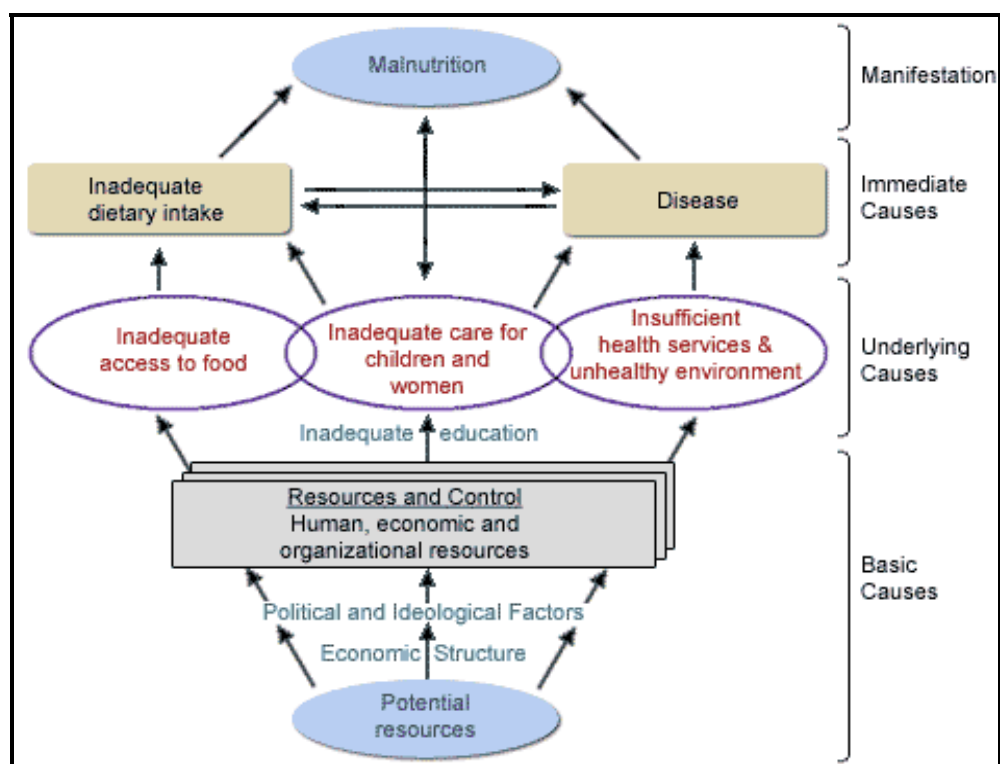
2.3 Determinants of Malnutrition

Understanding the epidemiology of nutrition is predicated upon an understanding of the determinants of malnutrition. The 1990 UNICEF document *Strategy for Improved Nutrition of Children and Women in Developing Countries* presented what has become a widely accepted framework of the determinants of malnutrition (UNICEF, 1990).

The framework is divided into three levels of causality: immediate, underlying, and basic. These categories reflect that malnutrition results from a complex set of interrelated behavioral, social, psychological, and physiological factors at the international, national, community, household, and individual levels. The immediate or proximate determinants are dietary intake and health status these manifest at the individual level. They are influenced by three underlying determinates at the household level: food security, care

for mothers and children, and health environment quality. Contributing to the underlying determinants are the basic determinants of malnutrition at a community and societal level including potential resources, environment, people and technology. This underlying level includes a broad range of factors including women's status, economic, social and cultural institutions. This framework has been often applied to study the determinants of malnutrition in various contexts and facilitating analyses of differences between countries or across regions (Frongillo, de Onis, & Hansen, 1997; Smith & Haddad, 2000; Smith, Ruel, & Ndiaye, 2004).

Figure 2.1: UNICEF Framework of the Causes of Malnutrition



2.3.1 Determinants Differ Based on Context

Using the UNICEF framework to guide their work in a cross-country analysis explaining malnutrition in developing countries, Smith and Haddad (2002) relate that the range of factors that can influence nutrition are extremely broad from political stability to slowing economic growth to acute respiratory infections and diarrhea (Smith & Haddad, 2002). Thus, the authors stress the necessity to understand the situation in order to contextualize an appropriate and effective response to the situation (Smith & Haddad, 2002) The context needs to be understood at all levels. Frongillo et al. (1997) analyzed data using regression analyses and variance components from 70 countries to evaluate which factors were associated with child wasting and stunting. They concluded that relationships detected nationally may not be observed provincially and mechanisms within nations are not necessarily the same as those between nations (Frongillo et al., 1997). Similarly, relationships observed nationally may not be observed individually. Along these lines the significant variability in the prevalence of stunting and wasting amid nations and amid provinces suggests that if children are malnourished it may be as much a result of aspects nationally and provincially as it is a result of individual household conditions (Frongillo et al., 1997).

2.3.2 Determinants Over Time and Space in Countries

While there has been much work to identify the determinants of malnutrition at a point in time (much of it referenced above), far less research has been done examining how those determinants change over time and space in a particular country (personal correspondence, D. Headey). Pathak and Singh conducted one such analysis of nationally representative data from India over three different time periods and found that the

concentration of malnutrition remained disproportionate among the poor irrespective of state of residence (Pathak & Singh, 2011). Another study using Demographic and Health Survey (DHS) data from two time periods in Kenya found through regression analyses that the strength of association of some of the determinants, like ownership of assets, did differ over time (Ndeng'e, 2005). The study did not explore the spatial elements of this change.

2.3.3 Economic Growth, Poverty, and Malnutrition

Poverty is a key underlying determinant of nutrition and an area of much inquiry in Viet Nam given the country's rapid and sustained economic growth. Poverty reduction and growth in income would be expected to reduce child malnutrition by addressing a range of determinants including more access to food, health care, and sanitation (Thang & Popkin, 2003). There is considerable variation in the effects of economic growth on malnutrition across countries (Benson, 2008). At a national level, many studies have linked changes in income with changes in health and nutrition indicators, though interpretation is difficult given the likely two-way causality (Gillespie, Mason, & Martorell, 1996). In one such study it was found that economic growth leads to a decrease in malnutrition across and in countries (Haddad, Alderman, Appleton, Song, & Yohannes, 2003). Smith et al. (2004) estimated that a 10% increase in income translates into a 5% decrease in malnutrition (Smith et al., 2004) while others have estimated that reductions in levels of malnutrition tend to fall at half the rate that per capita incomes grow (Haddad et al., 2003). While there is considerable variation in the effects of economic growth on malnutrition across countries (Benson, 2008), relying upon economic growth to decrease malnutrition is likely not enough, even at a national level

(World Bank, 2006). This is further supported by country specific analyses (Ravillion, 1990). Using econometric methods, Ravillion analyzed a large household dataset from East Java and found that nutrition levels in poor countries are relatively unresponsive to income changes and concluded that the link between poverty and under nutrition may be much weaker than thought previously (Ravillion, 1990). Mexico, Brazil, and Viet Nam are examples of countries where there has been tremendous economic growth, but the growth has not been distributed equitably and did not translate into decreased poverty or big nutritional gains across all economic strata (Gillespie et al., 1996; Knowles, Bales, Cuong, Oanh, & Luong, 2009; Thang & Popkin, 2003).

In 2011 Headey built upon prior research on the relationship between economic growth and reductions in malnutrition by analyzing a large cross-country data set derived from recent DHS data (various socioeconomic, health, education and family planning data) the World Development Indicators (economic data) and FAO data (agricultural data).

Headey used a mix of methods to inform the debate about which strategies might be best employed to reduced malnutrition, with an emphasis on economic growth. He found that growth is “nutrition sensitive” if it increases food production, reduces poverty, increases female education, improves health access, and reduces fertility (Headey, 2011).

Headey also assessed successes and failures in reducing malnutrition. He pointed out the shortcomings of cross-country regressions used for this purpose lie with their inability to disentangle the “experiences within a relationship” (Headey, 2011). He concluded that economic growth is required but not sufficient, especially in poor countries. No examples were found of countries that had reduced malnutrition without fairly rapid economic growth, however, he did identify countries, like India, that despite rapid economic growth

malnutrition was not reduced. Headey's work reinforces the need for both short term and longer term approaches to address malnutrition. He stated that even in the absence of economic growth direct nutrition interventions have impact. In the long run a "pro-nutrition" growth strategy may be the best means for sustaining reductions in malnutrition because of the influence growth would have on the other determinants of malnutrition like health and education (Headey, 2011).

2.4 Decentralization

Another key gap in the policy literature is understanding of sub-national dynamics in decentralizing settings which is an important political process in Viet Nam influencing the sociopolitical dimensions of malnutrition. Critical decisions about priorities and resource allocation are increasingly being made at sub-national levels, and while many countries are struggling with these complexities, there is little nutrition research to guide strategy development (Bryce et al., 2008).

Decentralization is the transfer of responsibility for planning, decision making, resource generation and allocation, and administrative authority from central government to alternate institutions (Rondinelli, Nellis, & Cheema, 1983). Decentralization is essentially a political reform, designed to reduce the extent of central influence and promote local autonomy (Litvack, Ahmad, & Bird, 1998). The political nature of decentralization was noted by two researchers investigating health systems in developing countries, and they stated that political considerations were inherent in any decision made and the political environment limited the extent of decentralization (Maluka et al., 2011). Omar (2002) went on to state that "without doubt, the most serious mistake any reformer can make is

to assume decentralization to be a managerial exercise devoid of political cause and consequence.” While decentralization is rarely explicitly focused on improving health and nutrition services, it does impact the structures that are responsible for their delivery as it implies that there is a transfer of fiscal, administrative, ownership, and political authority (www.worldbank.org).

2.4.1 Rationale and Forms of Decentralization

Decentralization can take a variety of forms, from devolution to deconcentration to delegation (World Bank, 2005). Each form represents a different level of ceding of power and resources, devolution being the most highly decentralized. Deconcentration implies a shifting of functions and resources, including personnel by central government from the metropolis to other locations. In a deconcentrated system often decisions can be made on the spot, without references to the center but ultimately authority is retained by the center (Katsiaouni, 2003; Litvack et al., 1998; World Bank, 2005), while delegation transfers authority and responsibility from a central entity to organizations not directly under its control (World Bank, 2005).

Supporters of decentralization claim that the reforms can enhance quality of services and efficiency (Litvack & Seddon, 1999; Mills, Vaughan, Smith, & Tabibzadeh, 1990).

Quality of services are enhanced because the beneficiaries of the services are more engaged in providing input and better able to hold local authorities accountable while efficiency is enhanced through authorities being able to better allocate resources based on local realities including consumer preferences and behavior (Litvack et al., 1998).

Decentralization is theoretically viewed as a strategy to connect government directly with constituents, it is seen as a way to boost quality of public services and address issues

arising from the uneven pace of growth and improvement in living standards in different regions of the same country (Dethier, 2004).

2.4.2 Health and Nutrition Experience With Decentralization

The 1978 Alma Ata Declaration on Primary Health Care gave impetus to many reform processes including decentralization efforts (Omar, 2002). Experience with decentralization and health services in developing countries began in the 1970s and continued through the 1980s signaling a shift from the highly centralized policies of the past (Walt & Gilson, 1994). By 1996 over 25 countries in Africa were in the process of implementing some form of decentralization (Gilson & Mills, 1995).

A group of public health practitioners and experts that had supported decentralization efforts in 7 developing countries identified the following conditions as critical for success these included; the provision of adequate and appropriate assistance to local communities as well as formulating clear goals, carefully defining boundaries between functions controlled by central-level managers and those controlled by their field level counterparts, and helping to build local-level capacity by providing technical and material support to field staff (Management Sciences for Health, 1995). These factors are essentially the same found by Omar (2002) in a review paper of recent efforts to decentralize in developing countries (Omar, 2002).

Inherent to decentralization is the genuine transfer of some decision-making power to sub-national actors and a shift of roles and responsibilities. Often these shifts are perceived as an erosion of power, but this is not necessarily the case. In a qualitative case study in Cambodia that focused on the review of provincial management systems and the

identification of system factors critical to success Men et al. (2005) related that a change in central-level roles and responsibilities associated with decentralization reform does not equate with role diminution. In fact, a strong central regulatory role may need to be adapted to assist sub-national levels to minimize potential risks of political decentralization, while simultaneously strengthening sub-national actors to take up the opportunities that political decentralization presents. This perception of loss of power is found throughout case studies in decentralizing settings (Maluka et al., 2011). Gilson et al. (2006) concluded that the key problem faced in implementing a decentralized approach was that, despite the policy rhetoric, too much power was retained at the national level.

Sub-national governments have been assigned enormous responsibilities in recent times. In countries with federal constitutions, sub-national governments have their own independent fiscal policies and development strategies that may not be consistent with policies pursued by the central government. In others, sub-national governments, acting as agents of the central government, are expected to spend on education, health, nutrition, sanitation, and agriculture. Local governments account for almost 70 per cent of poverty-reducing spending in some countries (United Nations Economic Commission for Africa, 2008). Furthermore, a growing emphasis on decentralization is resulting in significant changes in the administrative and political landscape of many countries like Viet Nam, the setting for this dissertation research.

A discussion on decentralization is especially relevant with regards to nutrition given the renewed emphasis on multisectoral responses as decentralized settings may offer more ease in integrating programs than highly centralized models (Gillespie, 2001). In a 2002

policy brief Shrimpton explored the role of nutrition and communities in the Irgina program in Tanzania as well as nutrition programs in Thailand and Tamil Nadu. He argues that national nutrition plans in the 1970s largely failed because of the difficulties of coordinating multisectoral approaches at the national level. During the 1980s decentralization was consistently identified as a key ingredient of successful nutrition programs (Shrimpton, 2002) with community involvement being an important component, both in terms of participation in local monitoring systems and local capacity building (Shrimpton, 2002). While Shrimpton's paper does not relate that rigorous methods were used to come to these conclusions his basic argument coupled with Gillespie's conclusions are sensible given the multisectoral nature of the causality of nutrition as previously discussed. A key pillar of the SUN movement's agenda is to ensure that sound nutrition policies provide an enabling context for effective targeted nutrition-related actions. Two recent examples of national plans from Nepal (Sharma, 2011) and Senegal (Ka, 2011) include decentralization as a key political process in their contexts that could encourage integration of actions.

2.4.3 Impacts of Decentralization

To date, the evidence has been inconsistent regarding the effectiveness of local planning initiatives in achieving health objectives at affordable costs (Management Sciences for Health, 2002; Mills et al., 1990). One review on health sector decentralization in developing countries stated that, despite international enthusiasm for decentralization, there is limited evidence of its positive impact on health systems and health (Omar, 2002). This finding was reinforced in a four-country study conducted in Ghana, Zambia, Uganda and the Philippines by Bossert and Beauvais (2002). They used two different

analytical frameworks, one that emphasized stages of decentralization and the other that defined the range of choice allowed in the decentralization process, or “decision space” (Bossert & Beauvais, 2002). The researchers found that there were a variety of different types and degrees of decentralization in the four countries but concluded the data were insufficient to determine impacts (Bossert & Beauvais, 2002).

Under-prepared middle-level management is a risk of decentralization that can translate into lack of awareness regarding local health and nutrition (Friedman, Heywood, Marks, Saadah, & Choi, 2006; Guanais & Macinko, 2009; Men et al., 2005; World Bank, 2005). This lack of awareness can in part be due to an absence of locally available data as was the case in the investigation around maternal mortality by Shiffman (2007a). “In a federal political system where the national government has little control over the policy priorities of state and local governments, the absence of sub-national data has contributed to a situation in which most state and governors and local government heads are unaware of problems in their own areas and avoid acting on maternal mortality” (Shiffman, 2007a). This was found in the Indian context also where local officials had little knowledge of the local nutrition situation or program available (Gillespie & Haddad, 2001).

Although decentralized planning and budgeting for health and nutrition is theoretically desirable in that it avoids traditional top-down models, it also raises significant challenges in terms of capacity for planning. Specifically, the planning process requires that the sub-national actors have the capability, capacity, and authority to develop plans and budgets as well as defend their content and advocate for resources with decision makers. It also requires that locally relevant programs can be designed and managed effectively. A review of India’s Integrated Child Development Services program

attributed limited success in part to poor planning capacity of local governments, or panchayats, (Gillespie & Haddad, 2001; Measham & Chatterjee, 1999). Similar limitations were noted in World Bank review on health and nutrition in Indonesia where there was a tension between the need for nutrition programs to address increasing regional disparities and the fact that local governments may not have adequate capacities or resources to recognize and address their local nutritional (Friedman et al., 2006). Other challenges identified in the Indonesian context included lack of coordination and suitability in government structures and bodies, inadequate skills of district level staff, and insufficient planning devoted to the process (Friedman et al., 2006). While many of these issues are not unique to decentralization, decentralization may exacerbate these issues further.

Impacts of decentralization on equity and poverty reduction have been increasingly studied. One such example is a study of an anti-poverty program in Argentina. In this work Ravillion (1998) found that while overall performance in reaching poor areas improved nationally, provinces varied in their ability to reach the poor and poorer provinces were less successful in targeting the poor (Ravillion, 1998). Additionally, decentralization generated substantial horizontal inequality in public spending on poor areas (Ravillion, 1998). In his qualitative case study entitled “Decentralization and Poverty Reduction” Katsiaouni (2003) presents examples of Ethiopia and Ghana, and surmises that in general there is little evidence to date that decentralization has made a considerable impact on poverty reduction. Health sector evidence from Viet Nam suggests that deconcentration has not been successful thus far as inequities are growing (Katsiaouni, 2003). Reforms have largely favored those with higher incomes resulting in

significantly increased health inequality (Thang & Popkin, 2003). This has translated to nutrition in Viet Nam as well (Knowles et al., 2009). A 2009 UNICEF Health Equity study concluded that there was moderate inequality in malnutrition among children under five in 1992/93; this inequality had increased substantially by 2006 (Knowles et al., 2009).

In a review on the implications of decentralization, the World Bank surmised that the evidence suggests that the problems associated with decentralization in developing countries reflect flaws in design and implementation more than any inherent outcome of decentralization (Litvack et al., 1998). To avoid the pitfalls related to decentralization, it will be necessary to address the imbalance of research on decentralization which has focused on the financing and payment issues rather than on organizational and governance and regulation (Bossert, 2012; Litvack et al., 1998). While there has been some attention paid in recent years to these issues, these issues are so complex that they require much greater attention and more funded research than is currently in the pipeline (Bossert, 2012).

2.5 Health and Nutrition Policy Analysis

2.5.1 Perspectives in Policy Analysis

Policy processes constitute a central means by which decisions are made regarding the broad objectives and priorities of a society and how resources should be allocated to those ends (Benson, 2008). There are varying perspectives of what policy analysis encompasses. For some, policy analysis mainly concerns policy content, while others argue it is more concerned with policy context and process spanning stages of the policy

process—including agenda building and policy formulation, planning, monitoring and evaluation—to determine which factors and actors affect the process (Sabatier, 2007).

Historically, there are two approaches to policy analysis: the “rationalist” and the “behaviorist” approach (Jenkins-Smith & Sabatier, 1993; Sabatier, 2007; Walt & Gilson, 1994).

2.5.2 Rationalist Perspective

The rationalist or idealistic approach or “linear model” (Lasswell, 1951) tends to focus more on the content of the policy and is more value oriented—since it analyzes how policy making should be undertaken (Ranney, 1968; Sutton, 1999; van Herten & Gunning-Schepers, 2000a, 2000b; Walt & Gilson, 1994). It offers a prescription of how policy making should happen encapsulated in four key steps: (1) predictions and prescription, (2) policy choice, (3) implementation, and (4) policy outcome (Lasswell, 1951). The model offers no feedback loops or opportunities for the process to move backwards as well as forward (Sabatier, 2007). Policy-making is seen as a problem-solving process, where decisions are made sequentially, i.e., problem definition, alternative approaches to solve the problem, and choosing the best approach and implementing it (Sutton, 1999). This approach enables analysts to evaluate past and present policies objectively and offers a prescriptive and ideal model of how policy-making ought to be undertaken. It offers a way of improving the effectiveness of policy-making by explicitly identifying values and goals before making policy choices and selecting the best policy options based on comprehensive information about the costs and consequences of each (Ranney, 1968; Sutton, 1999; Walt & Gilson, 1994; Walt et al., 2008).

2.5.3 Behaviorist Perspective

The behaviorism approach (also known as incrementalism; Kingdon, 1984), unlike rationalism, argues that it is essential to pay more attention to the process and the context within which policies are formed and implemented (Sabatier, 2007; Shiffman, Beer, & Wu, 2002; Sutton, 1999; Walt & Gilson, 1994). It describes the contextual factors, including political, economic, sociocultural, and demographic aspects which affect the health policy process and its health outcomes directly and indirectly (Collins et al., 1999; Gonzalez Block, 1997; Walt & Gilson, 1994; Walt et al., 2008). The understanding of contextual factors, including political, sociocultural, and economic ones, are critical in any policy analysis for behaviorists (Collins et al., 1999; Navarro, 2000). According to this approach, analysis of policy process helps in understanding how policy-makers set priorities in healthcare and plan actions to address increasing health problems. It also helps us to understand why many health problems are not solved, why policies are not implemented effectively, and why health policies do not achieve their targets (Brewer & Leon, 1999; Jenkins-Smith & Sabatier, 1993; Sabatier, 1993, 2007; Walt & Gilson, 1994). It views policy as a “political process” where outcomes are “evolutionary” and not rational or logical. Policy decisions are complex and ambiguous, and involve many actors with varying and often contradictory aims, perspectives, and power (Sabatier, 2007).

According to Kingdon (1984), the policy process moves through a number of distinct phases but not in an orderly way. De Leeuw (2000) states that the policy process is complex because policy-making is increasingly a matter of exchange of information and communication. The opportunities and abilities of participants in a policy network to communicate and to exchange information, expertise and other resources determine

whether policy is made and what is its content (Laumann & Knokke, 1987). Other policy scientists take a more extreme view by characterizing the policy process as complex, disordered, and coincidental and hardly open to analysis (Baumgartner & Jones, 1993; Hogwood & Gunn, 1984; Kingdon, 1984). Often public health research relies on a linear process which assumes a continuum from research to policy change. It is assumed that credible data are provided which inform solid policy decisions (Pelto & Freake, 2003). Consequently, researchers often try to influence public policies through the formulation of recommendations that public health authorities should follow (Breton & de Leeuw, 2011; Ebener et al., 2006). Walt et al. (2008) argues that expecting a direct connection between scientific results and policy reveals a misunderstanding about the nature of the policy environment which ignores the inherently political nature of health policy. Bernier and Clavier state that conceiving politically neutral policy improvements for better public health outcomes and reduced social health inequalities is a “fiction we need to come to terms with” (Bernier & Clavier, 2011).

The theories above have informed a number of widely used frameworks—such as the Stages Heuristic (Brewer & Leon, 1999; Lasswell, 1956), Punctuated Equilibrium (Baumgartner & Jones, 1993), Multiple Streams (Kingdon, 1984), Coalition Framework (Sabatier, 1998), Policy Sciences Framework (Clark, 2002) and Policy Analysis Framework (Walt & Gilson, 1994)—that have been well summarized in recent publications (Baumgartner & Jones, 1993; Gilson & Raphaely, 2008; Shiffman et al., 2002; Walt et al., 2008), key being Sabatier’s Theories of the Policy Process which provides a comprehensive discussion comparing and contrasting the various frameworks (Sabatier, 2007). Many of the later frameworks (Clark, 2002; Shiffman & Smith, 2007;

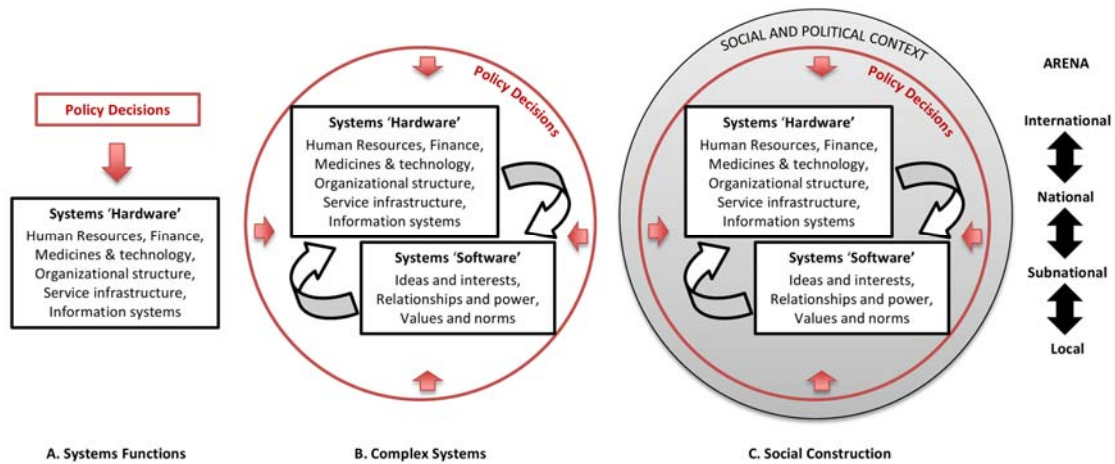
Walt & Gilson, 1994) do not reject nor fully support either of the rationalism and behavioralism approaches but rather, incorporate their views by arguing the importance of policy content, context, and process. With the primacy of policy content, context, and process these frameworks acknowledge the importance of the “software” of health policy, namely the ideas, interests, relationships, power, values and norms that influence the content, context and process.

The policy frameworks referred in this review have been primarily developed and applied in Western settings; the first review (Gilson & Raphaely, 2008) of the literature analyzing health policy processes in low and middle income countries was completed in 2008. Conclusions included that the research is often weakly contextualized and quite descriptive, and offers relatively limited insights into core questions of how and why policies are developed and implemented effectively over time (Gilson & Raphaely, 2008). One recent attempt to rectify this situation is the emergent field of Health Policy and Systems Research (HPSR).

2.5.4 Health Policy and Systems Research (HPSR)

HPSR is interdisciplinary and draws a comprehensive picture of how health systems respond and adapt to health policies, and how health policies can shape and be shaped by health systems and broader determinants of health (Gilson, 2012). The term HPSR emphasizes the interconnectedness between policy and systems and features the social and political nature of the field (Sheikh et al., 2011) as is depicted in Figure 2.2.

Figure 2.2: Health Policy and Systems: Alternate Perspectives



Note. “Building the Field of Health Policy and Systems Research: Framing the Questions,” by K. Sheikh, L. Gilson, I. A. Agyepong, K. Hanson, F. Ssengooba, & S. Bennett, 2011, *PLoS Med*, 8(8): e1001073.

The framework includes both the “hardware” of the system (e.g., human resources, delivery of interventions) that has more traditionally been examined in health systems and the “software” (e.g., ideas, relationships, power etc.) thus, reinforcing that health systems and policies are embedded in social and political contexts (Sheikh et al., 2011). Acknowledgment that the “software” is important was noted in a 2009 World Bank review of its investments in nutrition over the past 30 years. In fact, power and trust between actors have been identified by two review papers as key determinants of health system performance and success of health policies (Erasmus & Gilson, 2008; Sheikh et al., 2011). The World Bank review concluded that while many of the programs were successful and sustained many of them encountered political and administrative bottlenecks that impeded their success (Natalicchio et al., 2009). The review went on to state that generating technical, sound knowledge about nutrition and providing it to policy-makers is not sufficient to ensure good results and that it is also crucial to understand the political contexts in which the policy makers operate (Natalicchio et al.,

2009). In a synthesis of experiences from the seven MNI countries Pelletier et al. found that while high-level political attention could be generated around nutrition the translation by mid-level actors of this attention into operational plans was often difficult. They also found that implementation was compromised by poor capacity, both human and organizational at all levels in the countries studied (Pelletier et al., 2011). He concludes by advocating for strengthening the full range of policy activities if large-scale and sustained reductions in malnutrition are to be accomplished (Pelletier et al., 2011).

2.6 Conclusions

Recent attention to child nutrition creates a unique opportunity to make progress. Success, however, will be predicated in large part on translating this attention into effective action in countries. Current efforts like SUN advocate implementing an evidence based package of direct nutrition interventions alongside multisectoral efforts. Without further investigation of the full policy spectrum and subsequent informed actions, the significant resources in “documenting the efficacy of nutrition interventions are unlikely to produce sustainable reductions in undernutrition” (Pelletier et al., 2011). The sociopolitical dimension of nutrition has been seldom analyzed systematically, as the tendency in nutrition and public health is to portray policy reform as a technical or economic process (Ebener et al., 2006; Gilson & Raphaely, 2008). What research has been conducted is often lacking in a strong theoretical basis (Walt et al., 2008). While there has been substantial research into the determinants of nutrition at global, regional, and country level there has been limited investigation of how these determinants might differ based on time and space in a country. The dissertation as a whole argues that understanding the sociopolitical and epidemiological dimensions of malnutrition is

critical to generate knowledge on how countries must engage with the issue of malnutrition avoiding the challenges identified in this review of the literature.

2.7 References

- Baumgartner, F., & Jones, B. (1993). *Agendas and instability in American politics*. Chicago, IL: University of Chicago Press.
- Behrman, J. R., Alderman, H., & Hoddinott, J. (2004). *Hunger and malnutrition* (Copenhagen Consensus Challenge Paper). Retrieved from http://plasma-nrg.com/PDF/Hunger_and_Malnutrition.pdf
- Benson, T. (2008). *Improving nutrition as a development priority. Addressing undernutrition in national policy processes in Sub Saharan Africa* (Research Report #156). Washington DC: International Food Policy Research Institute.
- Bernier, N., & Clavier, C. (2011). Public health policy research: Making the case for a political science approach. *Health Promotion International, 26*, 1090–1116.
- Bezanson, K., & Isenman, P. (2010). Scaling up nutrition: A framework for action. *Food and Nutrition Bulletin, 31*, 178–186.
- Bhutta, Z. A., Ahmed, T., Black, R. E., Cousens, S., Dewey, K., Giugliani, E., Shekar, M. (2008). What works? Interventions for maternal and child undernutrition and survival. *The Lancet, 371*, 417–440.
- Black, R. E., Allen, L. H., Bhutta, Z. A., Caulfield, L. E., de Onis, M., Ezzati, M., Rivera, J. (2008). Maternal and child undernutrition: Global and regional exposures and health consequences. *The Lancet, 371*, 243–260.
- Bossert, T. J. (2012). Health systems. *Health Policy and Planning, 27*, 8–10.
- Bossert, T. J., & Beauvais, J. C. (2002). Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: A comparative analysis of decision space. *Health Policy and Planning, 17*, 14–31.
- Breton, E., & de Leeuw, E. (2011). Theories of the policy process in health promotion research: A review. *Health Promotion International, 20*, 187–193.
- Brewer, G., & Leon, de P. (1999). *The foundations of policy analysis*. Homewood, IL: Dorsey Press.
- Bryce, J., Coitinho, D., Darnton-Hill, I., Pelletier, D., & Pinstrup-Andersen, P. (2008). Maternal and child undernutrition: Effective action at national level. *The Lancet, 371*, 510–526.
- Clark, T. (2002). *The policy process: A practical guide for natural resource professionals*. New Haven, CT: Yale University Press.
- Collins, C., Green, A., & Hunter, D. (1999). Health sector reform and the interpretation of policy content. *Health Policy, 47*, 69–83.

- De Leeuw, E. (2000). Beyond community action: Communication arrangements and policy networks: Commentary. In B. D. Poland, L. W. Green, & I. Rootman (Eds.), *Settings for health promotion: Linking theory and practice* (pp. 287–300). Thousand Oaks, CA: Sage.
- Dethier, J. (2004, September). *Decentralization and poverty reduction: Exploring the linkages*. Paper presented at the Organisation for Economic Co-operation and Development Workshop on Decentralization and Poverty Reduction: From Lessons Learned to Policy Action. Paris, France.
- Ebener, S., Khan, A., Shademani, R., Compennolle, L., Beltran, M. Lansang, M. A., & Lippman, M. (2006). Knowledge mapping as a technique to support knowledge translation. *Bulletin of the World Health Organization*, 84, 636–642.
- Erasmus, E., & Gilson, L. (2008). How to start thinking about investigating power in the organizational settings of policy implementation. *Health Policy and Planning*, 23, 361–368.
- Feed the Future. (2012). Retrieved from <http://www.feedthefuture.gov>
- Friedman, J., Heywood, P., Marks, G., Saadah, F., & Choi, Y. (2006). *Health sector decentralization and Indonesia's nutrition programs: Opportunities and challenges*. Washington, DC: World Bank.
- Frongillo, E., de Onis, M., & Hansen, K. (1997). Socioeconomic and demographic factors are associated with worldwide patterns of stunting and wasting of children. *The Journal of Nutrition*, 127, 2302–2309.
- Gillespie, S. R. (2001). *Strengthening capacity to improve nutrition* (Discussion Paper #106). Washington DC: International Food Policy Research Institute Food Consumption and Nutrition Division.
- Gillespie, S., & Haddad, L. (2001). *Attacking the double burden of malnutrition in Asia and the Pacific. Manila* (Nutrition and Development Series #4). Manila, Philippines: Asian Development Bank.
- Gillespie, S., Mason, J., & Martorell, R. (1996). *How nutrition improves* (State of the Art Series in Nutrition Policy Discussion Papers #15). Geneva, Switzerland: Administrative Committee on Coordination/Sub-Committee on Nutrition.
- Gilson, L. (Ed.). (2012). *Health policy and systems research*. Geneva, Switzerland: World Health Organization, Alliance for Health Policy and Systems Research.
- Gilson, L., Erasmus, E., Kamuzora, P., Mathews, V., Ngulube, T. J., & Scott, V. (2006). *Applying policy analysis in tackling health-equity related implementation gaps* (Equinet Discussion Paper 28). Cape Town/Johannesburg, South Africa: Health Economics Unit/Centre for Health Policy.

- Gilson, L., & Mills, A. (1995). Health sector reforms in Sub Saharan Africa: Lessons of the last ten years. *Health Policy and Planning*, 32, 215–243.
- Gilson, L., & Raphaely, N. (2008). The terrain of health policy analysis in low and middle income countries: A review of published literature 1994–2007. *Health Policy and Planning*, 23, 294–307.
- Gonzalez Block, M. (1997). Comparative research and analysis method for shared lessons from health systems reforms. *Health Policy*, 42, 187–209.
- Guanais, F., & Macinko, J. (2009). The health effects of decentralizing primary care in Brazil. *Health Affairs*, 28, 1127–1134.
- Haddad, L., Alderman, H., Appleton, S., Song, L., & Yohannes, Y. (2003). Reducing child malnutrition: How far does income growth take us. *World Bank Economic Review*, 17, 107–131.
- Headey, D. (2011). *Turning economic growth into nutrition-sensitive growth* (Conference Paper #6). Washington, DC: International Food Policy Research Institute.
- Hogwood, B., & Gunn, L. (1984). *Policy analysis for the real world*. Oxford, UK: Oxford University Press.
- Horton, S., Shekar, M., McDonald, C., Mahal, A., & Brooks, J. (2010). *Scaling up nutrition: What will it cost?* Washington DC: The World Bank.
- Houston, R. (2010). *The Mainstreaming Nutrition Initiative: An evaluation of implementation, processes, modifications and impact*. Washington, DC: World Bank.
- Jenkins-Smith, H., & Sabatier, P. A. (1993). The study of public policy process. In P. A. Sabatier and H. Jenkins-Smith (Eds.), *Policy change and learning* (pp. 1–9). Boulder, CO: Westview Press.
- Ka, A. (2011). *Nutrition in Senegal: Achievements and prospects*. Washington DC: International Food Policy Research Institute.
- Katsiaouni, O. (2003, November). *Decentralization and poverty reduction: Does it work?* Paper presented at the Fifth Global Forum on Reinventing Government, Mexico City.
- Kingdon, J. (1984). *Agendas, alternatives, and public policies*. Boston, MA: Little, Brown.
- Knowles, J. C., Bales, S., Cuong, L. Q., Mai, O. T. T., & Luong, D. H. (2009). *Health equity in Viet Nam: A situational analysis focused on maternal and child mortality*. Hanoi, Viet Nam: United Nations Children’s Fund.

- Lasswell, H. (1951). The policy orientation. In D. Lerner & H. Lasswell (Eds.), *The policy sciences* (pp. 3–15). Stanford, CA: Stanford University Press.
- Lasswell, H. (1956). *The decision process*. College Park, MD: University of Maryland Press.
- Laumann, E., & Knokke, D. (1987). *The organizational state: Social choices in national policy domains*. Ann Arbor, MI: University of Wisconsin Press.
- Litvack, J., Ahmad, J., & Bird, R. (1998). *Rethinking decentralization in developing countries*. Washington DC: World Bank.
- Litvack, J., & Seddon, J. (Eds.). (1999). *Decentralization briefing notes*. Washington DC: World Bank.
- Lutter, C. K., Daelmans, B. M. E. G., de Onis, M., Kothari, M., Ruel, M. T., Arimond, M., Borghi, E. (2011). Undernutrition, poor feeding practices, and low coverage of key nutrition interventions. *Pediatrics*, *128*, e1418–e1427. doi:10.1542/peds.2011-1392
- Maluka, S., Hurtig, A. K., San Sebastian, M., Shayo, E., Byskov, J., & Kamuzora, P. (2011). *The International Journal of Health Planning and Management*, *26*, 102–120.
- Management Sciences for Health. (1995). *The manager: Management strategies for improving health services* (Vol. 4, Issue 3). Boston, MA: Author.
- Management Sciences for Health. (2002). *The manager: Management strategies for improving health services* (Vol. 11, Issue 1). Boston, MA: Author.
- Measham, A., & Chatterjee, M. (1999). *Wasting away: The crisis of malnutrition in India*. Washington DC: The World Bank.
- Men, B., Grundy, J., Cane, J., Rasmey, L. C., An, N. S., Soeung, S. C., Biggs, B. A. (2005). Key issues relating to decentralization at the provincial level of health management in Cambodia. *The International Journal of Health Planning and Management*, *20*, 3–19.
- Mills, A., Vaughan, J., Smith, D., & Tabibzadeh, I. (1990). *Health system decentralization: Concepts, issues and country experience*. Geneva, Switzerland: World Health Organization.
- Morris, S. S., Cogill, B., & Uauy, R. (2008). Effective international action against undernutrition: Why has it proven so difficult and what can be done to accelerate progress? *The Lancet*, *371*, 608–621.

- Nabarro, D., Menon, P., Ruel, M. T., & Yosef, S. (2012). *Scaling up nutrition (SUN): A global movement to accelerate progress in reducing maternal and child malnutrition*.
- Natalicchio, M., Garrett, J., Menno-Mulder, S., Ndegwa, S., & Voorbraack, D. (2009). *Carrots and sticks: The political economy of nutrition policy reforms* (HPN Discussion Paper). Washington, DC: World Bank.
- Navarro, V. (2000). Assessment of the World Health Report. *The Lancet*, 356, 1598–1601.
- Ndeng'e, G. (2005). *Determinants of non-monetary indicators of poverty in Kenya: Determinants of child nutritional status 1998–2003*. Washington, DC: World Bank Poverty Analysis Research Unit.
- Omar, M. (2002). Health sector decentralization in developing countries: Unique or universal. *World Hospitals and Health Services*, 38(2), 24–30.
- Pathak, P. K., & Singh, A. (2011). Trends in malnutrition among children in India: Growing inequalities across different economic groups. *Social Science & Medicine*, 73, 576–585.
- Pearson, B. L., & Ljungqvist, B. (2011). REACH: An effective catalyst for scaling up priority nutrition interventions at the country level. *Food and Nutrition Bulletin*, 32, S115–127.
- Pelletier, D., Frongillo, E. A., Gervais, S., Hoey, L., Menon, P., Ngo, T. & Ahmed, T. (2011). Nutrition agenda setting, policy formulation and implementation: Lessons from the Mainstreaming Nutrition Initiative. *Health Policy Plan*, 27, 19–31.
- Pelto, G. H., & Freake, H. C. (2003). Social Research in an Integrated Science of Nutrition: Future Directions. *Journal of Nutrition*, 133, 1231–1234.
- Ranney, A. (1968). *Political science and public policy*. Chicago, IL: Markham.
- Ravillion, M. (1990). Income effects on undernutrition. *Economic Development and Cultural Change*, 38, 489–515.
- Ravillion, M. (1998). Reaching poor areas in a federal system. (Research Working Paper 1901). Washington, DC: World Bank.
- REACH. (2011). *UN REACH progress report: Accelerating the scale up of food and nutrition actions. January 2010–June 2011*. Rome, Italy: World Food Programme.
- Rondinelli, D., Nellis, J., & Cheema, G. (1983). *Decentralization in developing countries: A review of recent experiences*. Washington, DC: World Bank.

- Sabatier, P. A. (1993). Policy change over a decade or more. In P. A. Sabatier & H. Jenkins-Smith (Eds.), *Policy change and learning* (pp. 13–39). Boulder, CO: Westview Press.
- Sabatier, P. A. (1998). The advocacy coalition framework: Revisions and relevance for Europe. *Journal of European Public Policy*, 5, 98–130.
- Sabatier, P. (2007). *Theories of policy process*. Boulder, CO: Westview Press.
- Save the Children. (2012). *A life free from hunger: Tackling child malnutrition*. London, UK: Author.
- Sharma, S. (2011). *Nepal's successes on micronutrients and progress on multi-sectoral nutrition planning with a vision to decentralize scale up of nutrition*. New York, NY: United Nations Children's Fund.
- Sheikh, K., Gilson, L., Agyepong, I. A., Hanson, K., Ssengooba, F., & Bennett, S. (2011). Building the field of health policy and systems research: Framing the questions. *PLoS Med*, 8(8): e1001073. doi:10.1371/journal.pmed.1001073
- Shiffman, J. (2007a). Generating political priority for maternal mortality reduction in 5 developing countries. *American Journal of Public Health*, 97, 796–803.
- Shiffman, J., Beer, T., & Wu, Y. (2002). The emergence of global disease priorities. *Health Policy and Planning*, 17, 225–234.
- Shiffman, J., & Smith, S. (2007). Generation of political priority for global health initiatives: A framework and case study of maternal mortality. *The Lancet*, 370, 1370–1379.
- Shrimpton, R. (2002). *Nutrition: A foundation for development: Nutrition and communities*. Geneva, Switzerland: Administrative Committee on Coordination/Sub-Committee on Nutrition.
- Smith, L. C., & Haddad, L. (2000). *Explaining child malnutrition in developing countries: A cross-country analysis*. Washington DC: International Food Policy Research Institute.
- Smith, L. C., & Haddad, L. (2002). How potent is economic growth in reducing undernutrition? What are pathways of impact? New cross-country evidence. *Journal of Economic Development and Social Change*, 51, 55–76.
- Smith, L. C., Ruel, M. T., & Ndiaye, A. (2004). *Why is child malnutrition lower in urban than rural areas? Evidence from 36 developing countries* (Discussion Paper 176). Washington, DC: International Food Policy Research Institute.
- Sutton, R. (1999). *The policy process: An overview*. London, UK: Chameleon Press.

- Thang, N. M., & Popkin, B. M. (2003). In an era of economic growth, is inequity holding back reductions in child malnutrition in Vietnam? *Asia Pacific Journal of Clinical Nutrition*, *12*, 405–410.
- UNICEF. (1990). *Strategy for improved nutrition of children and women in developing countries: A UNICEF policy review*. New York, NY: United Nations.
- United Nations Economic Commission for Africa. (2008). *Concept note: The role of sub-national jurisdictions in achieving the millennium development goals*. Addis Ababa, Ethiopia: Author.
- Van Herten, L. M., & Gunning-Schepers, L. (2000a). Targets as a tool in health policy. Part 1: Lessons learned. *Health Policy*, *53*, 1–11.
- Van Herten, L. M., & Gunning-Schepers, L. (2000b). Targets as a tool in health policy. Part II: Guidelines for application. *Health Policy*, *53*, 13–23.
- Victora, C. G., de Onis, M., Hallal, P. C., Blössner, M., & Shrimpton, R. (2010). Worldwide timing of growth faltering: Revisiting implications for interventions. *Pediatrics*, *125*, e473–e480.
- Walt, G., & Gilson, L. (1994). Reforming the health sector: The central role of policy analysis. *Health Policy and Planning* *9*, 353–370.
- Walt, G., Shiffman, J., Schneider, H., Murray, S. F., Brugha, R., & Gilson, L. (2008). “Doing” health policy analysis: Methodological and conceptual reflections and challenges. *Health Policy and Planning*, *23*(5), pp. 308–317.
- World Bank. (2005). *East Asia decentralizes. Making local governments work in East Asia*. Washington DC.
- World Bank. (2006). *Repositioning nutrition as central to development: A strategy for large-scale action*. Washington, DC: World Bank Directions in Development.

Chapter 3: Article #1 Prospective Analysis of the Recent Evolution of the National Nutrition Agenda in Viet Nam

By Karin Lapping, Edward A. Frongillo, Lisa J. Studdert, Purnima Menon, Jennifer Coates and Patrick Webb

Abstract: Improved understanding of how to advance national nutrition policy is critical to ensure greater policy investments in nutrition. We used a participant-observer, change-agent model to prospectively study why and how national nutrition policy advanced in Viet Nam between 2006 and 2008. Our goal was to understand strategies used, factors that shaped policy advancement, and the interaction of strategies with factors in this context. Data were collected using questionnaires, informant interviews, program visits, document reviews, and documentation of key events. For analysis, we created a chronology of events, examined strategies and actions used and their results by event, coded interviews, and summarized findings using a well known framework for policy analysis. Our analysis shows that the following elements were critical to bring greater attention to nutrition policy in this context: (1) building a cohesive nutrition policy community through creation and support of an alliance; (2) clearly defining internal and external frames for the nutrition problem; (3) using and creating high profile internal and external policy windows; (4) capitalizing on cultural motivations and values. Findings indicate that that rapid nutrition policy advancement is possible if purposeful, contextually sensitive, strategies are used where favorable conditions exist, or can be created. The participant-observer, change-agent model was successful in both contributing to policy advancement and documenting it.

Keywords: Nutrition, Policy, Vietnam, Stunting

1 Introduction

Past research has examined the biological, epidemiological, and implementation dimensions of public health and nutrition policy, and of the programming that flows from it (Black et al., 2008; Bhutta et al., 2008; Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup-Andersen, 2008; Morris, Cogill, & Uauy, 2008; Victora et al., 2008; World Bank, 2006). Limited research, however, has been undertaken to understand the sociopolitical factors and processes that influence and determine national policy formulation, including the ability to generate effective policy traction and resources. The sociopolitical dimension has been seldom analyzed systematically, as the tendency in nutrition and public health is to portray policy reform as a technical or economic process (Ebener et al., 2006; Gilson & Raphaely, 2008). “Economists and health policy analysts tend to provide detailed prescriptions for policy directions without clear instructions on how to do it or explanations for why things go wrong” (Ebener et al., 2006). This may in part be because policy decisions are complex, ambiguous, and involve many actors with varying and often contradictory aims, perspectives, power (Sabatier, 2007) and also because of a lack of training in how to conduct policy analysis.

Current scholarship suggests, however, that the sociopolitical characteristics of public health issues, including nutrition, may be more significant in determining outcomes than biological, epidemiological, and implementation characteristics (Shiffman & Smith, 2007; Sumner, Lindstrom, & Haddad, 2008). In this line of reasoning, *Health Policy and Planning* recently dedicated a supplement to health policy analysis and recommended the following: (1) more explicit methodological focus in conducting policy analysis, (2)

better use of the existing body of policy analysis, and (3) future research on agenda-setting and policy implementation. This call for innovative research included a challenge that real-time, prospective, health policy analyses be conducted that are informed by strong theoretical and analytical frameworks (Buse, 2008; Walt et al., 2008; Gilson et al., 2008).

This paper responds to some of these identified gaps in the policy and nutrition literature. Using a case-study methodology, we conducted a prospective health policy analysis on why and how the national nutrition agenda, specifically, the development of the Plan of Action to Accelerate the Reduction of Stunting (PAARS), moved substantially forward in Viet Nam over a two-year period from September 2006 to September 2008. Three questions are addressed: (1) What strategies were employed by actors to move the agenda forward? (2) What factors shaped the movement of this agenda? (3) How did these factors and strategies interact over time to move the nutrition agenda forward? The paper has three sections: an elaboration of methods including data collection and analysis in the methods, followed by a presentation of results and a concluding discussion section.

2 Methods

2.1 Study Setting

Nutrition has been a focus of the Ministry of Health (MoH) since the 1960s, but developed into a national priority after reunification in 1975. The MoH established the National Institute of Nutrition (NIN) in 1980 to coordinate two national research programs on major nutrition problems such as protein-energy malnutrition, Vitamin-A deficiency, and iron-deficiency anemia. In 1991, the MoH declared nutrition a priority

area and the NIN released a nutrition situation report. A program to reduce malnutrition in the form of the national Protein Energy Malnutrition Control (PEMC) was managed and implemented by the National Committee for Population, Family and Children, and then inherited by NIN in the 1990s.

Building on greater technical efforts to improve nutritional status, the Prime Minister approved a National Plan of Action for Nutrition in 1995, which set priorities and goals for 1996–2000. The National Nutrition Strategy (NNS), ratified by the Prime Minister, outlines the next phase for 2001–2010. Currently, the NIN is implementing the NNS and is planning for the development next NNS from 2010 and beyond. Despite the existence of numerous policy documents and the existence of a national program, Viet Nam has not preformed as well as it should with regards to nutrition.

In Viet Nam, rapid economic growth has not been associated with equivalent rapid or expected declines in malnutrition (Wagstaff et al., 2001). Almost a third of children under five are stunted (low height-for-age against international standards) and a quarter underweight (low weight-for-age), this within the context of an economy growing at an estimated average 7% each year. Viet Nam ranks tenth in the world in terms of number of children stunted (UNICEF, 2007; World Health Organization, 2000).

The main actor in development endeavors in the country is, of course, the Government of Viet Nam (GoV). Decentralization has been a prominent feature of GoV's recent approach to development. While decentralization efforts continue, central government still exerts significant control especially in policy discussions. Donor funding comprises roughly 5% of the Vietnamese health budget, and the vast majority of these funds are

dedicated to HIV/AIDS. Despite an HIV/AIDS prevalence of less than 1% in the general population, in 2008 over 100 million U.S. dollars were earmarked for HIV/AIDS versus less than 1 million for nutrition (UNAIDS, 2008).

The period of 2006 to 2008 was marked by intensive dialogue and activity around nutrition policy changes, resulting in the development of a national plan to reduce stunting. This prospective case study examines that period of change in national agenda setting and policy formulation in Viet Nam. We investigate the strategies, factors, and collusion of these strategies and factors resulting in a specific nutrition policy change: the creation of the soon-to-be-ratified Plan of Action to Accelerate the Reduction of Stunting (PAARS), essentially the reorientation of the national nutrition program.

2.2 Methodological Orientation

The research reported here was conducted under the auspices of the Mainstreaming Nutrition Initiative (MNI) funded by a World Bank development grant. The overall goal of MNI was to develop approaches for, and gain experience with, moving nutrition into the “mainstream” of policy agendas, programs, and institutions in several developing countries including Viet Nam. The intention was that MNI conduct “action research” to accomplish this goal (World Bank, 2007).

We examined a range of existing policy theories and frameworks to inform our thinking. We did this by reviewing frameworks on policy and social processes (Clark, 2002), frameworks organizing factors that may inhibit or facilitate policy progress (Shiffman & Smith, 2007), and theories about how policy change occurs (Sabatier, 2007).

During data collection, Clark's framework was influential in shaping the questions we asked and paying attention to motivations and values. The analysis proceeded in multiple steps, for coding we drew on the ideas of Clark (2002). For the second research question we used Shiffman & Smith's (2007) framework as it offered a basis for the categorization of "factors" of interest. For the third question we did not adopt a specific theory on how policy changed; rather, we wanted to see what emerged from the data about how change occurred.

Our theoretical approach was also influenced by the debate around the primacy of social structure or human agency; that is, do social structures primarily determine an individual's behavior, or is an individual's propensity to act largely independent of social structures? (Giddens, 1986) We adopted a perspective similar to that of Pavignani and Durao (1999), that human agency matters, and that it is influenced by structure. Essentially, that individual champions/leaders and their actions can make a difference.

This research was conducted and strengthened by purposively drawing on principles, ideas, and methods from ethnography (Bernard, 1995), in-depth qualitative inquiry (Berg, 2004; Patton, 2001), and participatory action research (Ozanne & Saatcioglu, 2008), and represents a weaving of these traditions rather than residing solely in one. The lead researcher intentionally played a dual role as participating-observer and change-agent. The data were collected while the researcher, who had already worked in Viet Nam for a number of years, was again employed there by an international nongovernmental organization (INGO). The lead researcher was able to build on previous rapport with key actors; this entry point enabled the subsequent work. In this capacity, the researcher was heavily engaged in policy discussions and program implementation.

As a participant-observer, the researcher was de facto the main data collection instrument (Bernard, 1995). Being a participant in any process tends to enhance trust among partners and trustworthiness of the findings (Krefting, 1989) in a number of important ways: (1) it allows the researcher access to kinds of data to which those not in the community would not have access, (2) there is reduced reactivity and change of behavior within the community since they are used to seeing the researcher, and (3) there is enhanced intuitive understanding of what is taking place which allows the researcher to speak with more confidence about the “meaning” of data collected. As an agent of change, the lead researcher was the country representative of MNI for a period of time, as well as working for an INGO. In this capacity she helped to establish a nutrition affinity group, convened meetings on nutrition policy, helped to support advocacy events, and provided technical support to nutrition program implementation.

2.3 Data Collection

Qualitative approaches were used to conduct this research from September 2006 to September 2008 concurrent with the lead researcher adopting the role of participating-observer and change-agent. A case-study methodology, an in-depth longitudinal examination of a single instance or event(s) (Yin, 2003), was employed as it best fit the context and research questions. This is because the research questions were broadly defined, and the study included a variety of sources of evidence and covered a range of contexts and variables (Yin, 2003). Case-study methodologies are “unique in their capacity to consider political and social phenomena in their real-life context, with attention to historical influences” (George & Bennett, 2005).

Data collection involved: (1) administration of a questionnaire regarding current nutrition programming and research agenda (i.e., objectives and coverage) and basis for the programming and research; (2) twenty-two structured interviews with key stakeholders involved in nutrition policy and program (14 at baseline and 8 end-line); (3) visits to nutrition program implementation sites; (4) review of government reports and documents, donor agency reports, meeting records, conference proceedings, and media clips; and (5) first-hand documentation of key events and meetings.

Semistandardized interviews¹ were conducted with representatives from government, academic institutions, nongovernmental organizations, United Nations agencies, and donors using an interview guide based on Clark's framework that contained six themes exploring agenda setting, commitment building, intervention strategies, implementation, evaluation, and changing or terminating programs. Each interview took approximately one hour. Notes were taken and interviews were recorded when possible. Audio tapes were transcribed. A letter explaining the purpose of the interview and sample questions was sent to potential interviewees. This document was translated into Vietnamese. Oral consent was sought and a trained translator was used when necessary. Exact wording may have been missed through the translations, thus, gaining a fully nuanced understanding of some of the concepts was difficult. The researcher debriefed with the Vietnamese translator after each interview, however, to note specific terminology and wording used by respondents. Additionally, some of the respondents did not provide expansive information during the interviews. To address this issue, we ensured that we had

¹ Tufts University Institutional Review Board reviewed and granted exemption #0705008 for this research on 5/17/2007.

sufficient numbers of interviews. We also obtained as diverse a respondent pool as possible given our objectives.

Two years after the initial research, end-line interviews were conducted with key informants from the same institutions as previously contacted (3 Ministry of Health, 2 UN agencies, 1 donor, and 1 implementer). The lead researcher conducted these interviews on the assumption that people would be forthright and frank, based on previously established comfort and trust. The original questions were revisited and inquires were made about the utility of specific strategies and actions taken over the past two years. The end-line interviews were also used to validate a timeline of key events, actions, and preliminary conclusions.

Site visits were conducted to observe first-hand the implementation of nutrition programming in Viet Nam to better understand how existing policy translated into programming and to inform future policy decisions. These site visits were concentrated in the central highlands and northern mountainous provinces, areas that have the highest levels of malnutrition and face numerous implementations issues (e.g., remote, little infrastructure, high percentage of ethnic minorities).

In the dual role of participating-observer and change-agent, the lead researcher attended meetings and events related to nutrition policy and programming to collect first hand information on the sociopolitical dynamics of the policy process, as well as on the impact and utility of large nutrition-related events. These events included key meetings such as the first-ever review of the National Nutrition Strategy (NNS) in March 2007 and the stunting reduction workshop which informed the creation of the Plan of Action to

Accelerate the Reduction of Child Stunting in Viet Nam (PAARS), the Viet Nam launch of *Lancet's* Series on Maternal and Child Undernutrition, and the United Nation's Standing Committee for Nutrition Annual Conference (SCN) in Hanoi.

2.4 Data Analysis

The first question identifies which strategies were employed by actors to move the nutrition agenda forward. To address this question we developed a chronology of the events related to the nutrition agenda in Viet Nam during the study period, September 2006 to September 2008. We also did an event-level analysis of the strategies and actions used and their results, and created a table summarizing this information. We defined event as an occurrence of some importance (e.g., a large advocacy meeting). The use of the word action is indicative of an act that is done or preformed while a strategy is a plan or method for obtaining a specific goal or result.

We divided the analysis of research question two, what factors shaped the movement of the nutrition agenda, into two steps. In the first step we generated a set of codes based on "key elements of process, derived from the policy literature" (Clark, 2002) and qualitative methodology (Miles & Huberman, 1994). Coding was based on the following categories: (1) settings/context, (2) definition of the situation (problem orientation, problem solution), (3) perspectives, (4) process, (5) activities, (6) events, (7) strategies, (8) relationships and social structures, (9) methods, and (10) values. Consistency of coding was enhanced by comparisons between the multiple interviews and data sources. In the second step of the analysis we organized the data using Shiffman & Smith's (2007) framework. We mapped our coded data to an adapted version of the framework to be relevant to a national experience related to agenda setting. We retained data even if it did

not map to the framework and noted this because we were also interested in evaluating the utility of the framework. Through these two analytical steps based on our coded data, we delineated the primary factors that influenced the nutrition agenda advancement in Viet Nam. This delineation focused in particular on factors that changed the most during the study period. The interpretation of these data was member checked by key actors in the process.

To address the third research question -- How and why did the nutrition agenda move forward?-- we used a “process tracing” method (George & Bennett, 2005). Process tracing uses multiple sources of information, in-depth understanding of the situation, and highly informed judgment to minimize bias, establish common patterns of causality, and reveal social and political processes. We integrated analysis from three lenses. The first discerned which factors changed most during the two-year period and which strategies were utilized to change those factors. The second determined which events and strategies occurred without which the process would not have reached the end point. The third examined what is revealed about underlying conditions and causal links essential to success when we trace micro-event to micro-event (i.e., routine nutrition partnership meeting).

3 Results

From 2006 to 2008, Viet Nam generated increased attention and renewed policy commitment to reduce stunting. To understand how this happened we have organized the results in three sections, corresponding to our three research questions: (1) What strategies were employed by actors to move the agenda forward? (2) What factors shaped

the movement of this agenda? (3) How did these factors and strategies interact over time to move the nutrition agenda forward?

3.1 Key Strategies and Actions

Relative to question one, we created a chronology of strategies and actions linked to intended outcomes and results (Table 3.1). This chronology and related event-level analysis spans the assignment of the researcher to the MNI project and this prospective case study in, September 2006–May 2008. The chronology includes both highlights and smaller events. Examples of events are the first Nutrition Partnership Group (NPG) meeting, the first ever NNS meeting, *Lancet* Launch and announcement of the PAARS at the SCN meeting. Examples of smaller events (i.e., micro events) are orientation meetings, initiation of formal communications regarding an event or a study tour. These events are discussed in further detail in the following sections.

We identified five key strategies. Often an employed strategy sought to have multiple outcomes, for example, a workshop might have sought to gather and share information while building rapport and community cohesion.

One key strategy was the placement of the researcher as a participating-observer, and was noted as a key strategy by members of the nutrition community in the end-line interviews. One interviewee stated that “human resources are a real need and having a dedicated technical person to focus on nutrition was critical to moving the nutrition agenda along” (Interview #31). Another interviewee commented on the role of the participating-observer in that they also needed to be a community organizer just as the community needed to allow itself to be organized (Interview #30).

Orientation meetings with key Vietnamese entities and international agencies were conducted to galvanize support for the work and to ensure the MNI efforts were vetted and informed by local partners. This key strategy engendered local ownership and helped to identify candidates for the national-level stakeholder interviews for an intensive situation analysis around the sociopolitical, epidemiological, and implementation barriers and facilitators to nutrition progress in Viet Nam.

Site visits were made to remote and ethnic minority areas of Viet Nam to better understand the implementation issues around translating policy into better nutrition outcomes. In addition, to understanding the field-level realities, site-visit activities enhanced the credibility of the actors and the veracity of their opinions.

Some of the findings of the situation analysis translated into key actions including the formation of the Nutrition Partnership Group (NPG) in January 2007, the fourth key strategy. The creation of the NPG influenced a number of different factors related to nutrition progress in Viet Nam. This will be discussed in more detail in the following section.

Targeted meetings emerged as a fifth key strategy during the two-year period of study. Objectives and outcomes of these critical meetings are listed in Table 3.1, and we will examine how these meetings interacted with key factors later in this paper. There was a series of meetings internal to the nutrition community ranging from periodic, informal NPG meetings to an MNI workshop in March 2007 which brought provincial and central actors together to a UNICEF sponsored meeting focused on stunting reduction facilitated by the United Nation's Standing Committee for Nutrition (SCN) secretariat.

Opportunities for external advocacy events were also created with increasing frequency. Members of the National Assembly, a powerful political entity in Viet Nam, attended the first-ever review of the National Nutrition Strategy in March 2007. Several high-profile global-nutrition events were hosted by Viet Nam including the media Launch for the *Lancet* Series on Maternal and Child Undernutrition and the SCN annual conference. These events would not have taken place in Hanoi without the efforts of many of the key actors both in Viet Nam and internationally.

3.2 Key Factors

To address research question two (what factors influenced the movement of the nutrition agenda in Viet Nam?), results were organized according to four dimensions (Shiffman & Smith (2007): actor power, ideas, political context, and issue characteristics.

3.2.1 Actor Power

Actor Power describes the strength of the individuals and organizations concerned with nutrition, and examines policy community, leadership, institutions and resource mobilization.

Policy Community Cohesion

Unlike other health issues, such as HIV/AIDs or safe motherhood, in, 2006 there was no coordinating mechanism for nutrition in Viet Nam. Nutrition activities and technical expertise was not concentrated in any one UN agency. UNICEF and WHO were involved in nutrition work while FAO focused on Avian Influenza and WFP was no longer present in Viet Nam also, there was no emergency cluster for nutrition. Those involved in nutrition lacked a venue to exchange ideas or share information as a community. Little

was known of who was programming where or what the priority issues were. In response to this gap, the Nutrition Partnership Group (NPG) was initially coconvened by representatives from the Asian Development Bank and Save the Children in January 2007. The NPG, consisted of key members from donors, implementers, and GoV. It had an established terms of reference, and joint deliverables. One interviewee stated that they are “now talking about a nutrition community, before there was no cohesive set of people to call on as colleagues in nutrition, now there is” (Interview #30). The NPG is now being chaired by UNICEF.

As with all development issues in Viet Nam, the main actor was the GoV (in nutrition, the Ministry of Health); this is especially the case in this paper primarily focused on policy formulation. The professional nutrition community in Viet Nam is quite small, but it is increasingly cohesive in thought and action. An example of this cohesion was a letter to the editor of the major English language newspaper in spring 2008 in response to a misleading photo published promoting the use of breastmilk substitutes. Within three days, a letter was sent to the editor from the GoV and all major UN and INGO actors asking for a correction to the photo; the newspaper issued a retraction days later. This kind of coordinated response would not have been possible in 2006.

Leadership

The nutrition community in Viet Nam benefited from a charismatic leader at NIN with whom it was easy to work. Respondents noted that he was highly diplomatic and a skilled consensus builder, both important qualities in Viet Nam (Interview #32). He was able to uptake suggestions from the NPG, provide leadership, navigate the often complex Vietnamese political scene and paid attention to the growth of junior staff by prioritizing

training at a variety of Western institutions. Additionally, two of the major donor organizations in Viet Nam had powerful health sector heads with academic backgrounds in nutrition (which is not always the case). This training and interest translated into more engagement in nutrition by these leaders as demonstrated by regular interaction with NIN and leadership of the NPG. Without these leaders having nutrition backgrounds, it is unlikely the extent of their efforts would have been the same given the broad health mandates of their positions. In the case of one of the sector heads, nutrition was not a core part of the agency mandate thus, her investment was done more out of personal interest than institutional support.

Guiding Institutions

The National Institute of Nutrition (NIN) within the Vietnamese Ministry of Health is the focal institution for nutrition. It is challenged by many factors including coordinating across multiple ministries, working in an increasingly decentralized environment, and needing to be financially self-sustaining by 2012. Historically the institute had focused on research, but it currently has multiple mandates in that it both creates nutrition policy and implements the national program. Adding to complexity of the dual mandate is that the institute also needs to try to be responsive and appear to be a willing development partner to a variety of international agendas that may or may not fit with stated GoV priorities. One respondent also noted that there may be additional pressures on the GoV to perform at a higher level in the future; as Viet Nam transitions to a middle-income country there will likely be higher expectations from donors about efficient and effective project management and implementation (Interview #35). A review of the National Nutrition Strategy relates that 16 different ministries have a role to play in nutrition. The lead

researcher requested meetings with key ministries, the majority consented to meeting. While most stated that nutrition was a key challenge in Viet Nam, they also stated that increased involvement would only be possible if funds flowed through their respective ministries (Interviews #2, #4).

Mobilization

Like most countries, mobilization of resources both human and financial remains a challenge in Viet Nam for nutrition. One interviewee from a key donor agency stated that “while health issues have made it as a front-page topic now, this wasn’t the case 10 years ago, but about 5–6 years has changed mostly due to SARs, Avian Influenza, HIV etc. A rapidly growing middle class demands responses from GoV. In my time in Viet Nam no one has ever mentioned nutrition as a topic of great concern.” (Interview #8). Another nationally placed interviewee thought that key agencies including hers had divested in nutrition and nutrition capacity in Viet Nam (Interview #30). This past trend seemed to be reversing with recruitment underway for new nutrition posts, and NPG members noting renewed interest by some UN agencies (Interview #31) and attraction of new funding possibilities.

3.2.2 Ideas

Ideas are internal and external frames, or ways in which actors portray and position issues to resonate with audiences.

Internal Frame

Internal frame relates how the Vietnamese nutrition policy community sees problem orientation and solutions. Key actors interviewed saw the major biological and

epidemiological issues in Viet Nam related to nutrition similarly. These included high prevalence of stunting (although many of them seemed accepting of this in part because they felt powerless to affect this in the short term) and assumed that it would reduce over time), extremely low exclusive-breastfeeding rates, high anemia prevalence, and suboptimal experiences with food fortification. Generally, it was thought that policies were in place, but in the international community there was mention that there was “lip service” paid to nutrition in Viet Nam but little real action (Interviews 9, 11). This assertion was echoed in the Vietnamese interviews. Problem solutions were similar from all respondents. Responses included a stronger focus on actions at the provincial level and below, more capacity building throughout the system, the current national program needed to be adapted, a coordinating mechanism needed to be created, and more and better analysis of the situation with current data was required. Given that there was general agreement regarding the nature of the nutrition problem and solutions to the problem, efforts were invested in encouraging focus on the prevailing nutrition issue, stunting and appropriate responses.

External Frame

In this paper external framing refers to how the Vietnamese nutrition policy community conveyed issues to an outside audience. Considerable work was invested in ensuring a common voice from the nutrition community, in external framing of nutrition problems. The focus on stunting was suggested at the MNI-hosted March 2007 workshop by key international donors and was adopted by the NPG as the way in which to externally frame nutrition. The attention to stunting was reinforced at the various advocacy events described below. The choice to focus on stunting was done for a multitude of reasons

including: easily measurable, the most prevailing nutrition problem in Viet Nam that has compelling impacts on socioeconomic development and even sports performance, resonated with the technical community as it was inclusive of other nutrition issues like poor infant and young child feeding practices and has links to emerging public health nutrition issues like obesity, and capitalized on cultural characteristics of competition and wanting to be a world leader in all aspects of development including reductions in stunting.

3.2.3 Political Contexts

Political Contexts are the environments in which the actors operate; policy windows or opportunities to promote the issue and governance structure are examined.

Policy Windows

We have already mentioned a variety of timely policy windows including the MNI meeting, the UNICEF meeting, the *Lancet* Launch, and the SCN meeting which were critical in the eventual creation of the PAARS. These policy windows served numerous purposes including creating a more cohesive community, drawing in others, and advocacy. These windows were also the major venue for expressing the “external frame” that had been developed by the nutrition community. A focus on stunting as the primary issue of concern at these events and the call for a coordinated response appeared to have exerted a positive pressure on the actors both internal and external to the policy community to commit to the PAARS. This commitment was reinforced in various policy contexts by various actors like the Deputy Vice Minister of Health at the SCN meeting or the head of UNICEF at the *Lancet* launch.

There were varied opinions among nutrition partners regarding the costs and benefits of hosting some of these events. All were resolute in that any event needed to be able to further the shaping of the nutrition agenda in Viet Nam. The *Lancet* Launch in Hanoi had an advocacy impact; from that event, more than 25 stories, half of which explicitly mentioned stunting as the main issue in Viet Nam, were highlighted in various media outlets (GMMB, Viet Nam Coverage Report). The Launch also called attention to the content of the *Lancet* scientific papers; this will be discussed later under issues characteristics. Some respondents thought that the launch had a very “external feeling and little local ownership as it was externally managed and driven” (Interview #30) but they also saw benefits to the launch since it drew leaders in the nutrition community and wider Vietnamese government to the event. The *Lancet* Launch and the SCN meeting that soon followed created more momentum for the creation of the PAARS (Interviews #30, #34).

Despite some initial resistance from the international community to hosting the SCN meeting, NIN was committed to having the meeting in Viet Nam. One respondent stated that “NIN deserved credit ... they latched onto the idea when others didn’t want to support it ... they went to Rome and announced they were going to have it, clearly they saw an opportunity and seized upon it, they knew it was going to be a lot of work but they had confidence and dragged the rest of us along” (Interview #30). An employee of a UN agency stated that the SCN meeting was “very important, it confirmed a lot of technical information, people talked about stunting and the concept of the window of opportunity” (Interview #36). The Director of NIN shared the PAARS at the SCN, and the GoV released a Ha Noi Declaration for the National Nutrition Actions that calls for

the accelerated reduction of child stunting. The declaration also urged nations to add the target to reduce stunting into national action programs and to make high level commitments. A senior UN official who closed the meeting stated that he expected the PAARS to bring the country to fulfill the Millennium Development Goals by 2015 (MOH, Hanoi, March 6, 2008).

Governance Structure

To make needed progress in the nutrition field, continued support from the National Assembly, the political entity that exerts the most influence and power in Viet Nam is needed. One respondent noted that “things have changed dramatically, there is more investment for nutrition now after the SCN meeting, the Vice Minister and MOH came recently and stated that they understood the issues more through the SCN meeting. The National Assembly has invited us to present the nutrition strategy, through this opportunity we will emphasize the stunting plan” (Interview #32). Another stated that there has been “change over the past two years, things are getting better, people are more awake, the public and the GoV. More authorities are putting nutrition on the agenda. Before community leaders would ask for houses and infrastructure, now there is a change in attitude and where funding would go ... changed in part because of national assembly, then others follow ... changes are likely due to a combination of things like SCN, NNS etc.” (Interview #35).

Two recurrent challenges in nutrition are multisectoralism and decentralization. Multisectoral responses are needed to address the multiple causes of malnutrition. The current National Nutrition Strategy relates that 16 different ministries have a role to play in ensuring sound nutrition in Viet Nam. Despite its multisectoral nature, nutrition

programming and policy is often developed and implemented through vertical structures as is the case in Viet Nam. Decentralization is taking place in Viet Nam and while still a fairly centralized country, power is shifting to the provinces. The NIN is challenged to effectively support nutrition through enhanced capacity building of provincial partners within this context. Support is needed from GoV and others ... international agencies can offer technical capacity but attitudes of people need to change. We are used to being told what to do and are very dependent on central level, we need new ownership and fuller capacity ... there are big changes with decentralization, provinces have a lot more power now” (Interview #36).

3.2.4 Issue Characteristics

Issue Characteristics are the features of the problem including whether or not there are credible indicators to measure the issue, the severity of the issue, and if effective interventions exist to address the problem.

Credible Indicators

Unlike some public health issues with difficult to measure indicators like neonatal or maternal mortality, nutrition status is easily measurable. Nutrition indicators like wasting (low weight-for-height) and stunting (low height-for-age) are often used internationally as proxy measures for how well a country is doing developmentally (World Bank, 2006). Traditionally underweight (low weight-for-age), a composite measure, was used by national nutrition programs given its ease of collection. This practice has been criticized given that stunting and wasting have different etiologies and responses, and using

underweight can obscure the understanding of the nutrition problem. Viet Nam has data available on all three indicators.

Severity

While Viet Nam compares well regionally with regards to some health indicators, like infant and under-five mortality, the prevalence of malnutrition is still unacceptably and uncharacteristically high for a country at this stage of economic development, and falls behind other developing countries regionally and globally (Wagstaff et al., 2001). Gains made in the health sector seem to have not translated into the same kind of reductions in child malnutrition. Currently, around 36% of children under five are stunted, 8% wasted and 20% underweight (General Statistics Office, 2006).

Effective Interventions

Effective long- and short-term interventions exist to prevent and reduce malnutrition. The recent *Lancet* Series on Maternal and Child Undernutrition as well as the World Bank publication *Repositioning Nutrition as Central to Development* have documented the abundant evidence. The Copenhagen Consensus ranks the top cost efficient solutions for the world's most challenging development issues, 4 of the top 10 slots are nutrition related. In Viet Nam, one respondent noted that the *Lancet* Launch messages were "very important including the refrain to do the right things and not do the wrong things ... the respondent continued to state that the current food demonstrations in the national program were the wrong thing and the PAARS would allow this to be changed" (Interview #36). The evolving process in the design of the national program will shed further light whether there is agreement or not with regards to intervention selection. To

date there has been general agreement on the major thrusts of the program, but selecting delivery strategies and targeting of interventions may be more difficult and contentious.

3.3 How and Why the Nutrition Agenda Moved Forward?

To address question three, how did the factors and strategies interact over time to move the nutrition agenda forward, we posed three subquestions: what factors changed the most over time, which strategies were employed to change the factors and what underlying conditions were revealed? Through responding to these three subquestions, we were able to triangulate our data sources.

The cohesion of the policy community changed dramatically from 2006 to 2008. In 2006, one interviewee stated that the “international community has taken a divide and conquer approach” (Interview #1), while two years later all respondents noted that the community, both International and Vietnamese, had come together (Interviews #30, 31, 32, 33, 34, 35, 36). Much of this can be attributed to the formation of the NPG. The NPG, however, would not have been formed without having a dedicated person committed to organizing and supporting it, or a coconvener representing the largest country donor for nutrition with influence and respect. The NPG persists, and is being chaired by UNICEF. A series of high-profile events solidified cohesion and membership whether it was on the Country Planning Team for the *Lancet* Launch or the Government-mandated Local Organizing Committee for the SCN. These events were critical to altering the political context.

The internal and external framing of the nutrition problem and solution evolved significantly over the study period. While problem orientation and solutions were fairly similar amongst respondents in the interviews, a focus on reduction of stunting emerged.

The efforts to enhance the policy cohesion were also important for the framing, both internal and external. Internal framing was also enhanced by the joint deliverables of the NPG which mapped the landscape of nutrition programming and policy in Viet Nam. Networking by Vietnamese and expatriate nutrition actors was critical to create policy windows in Viet Nam like the *Lancet* Launch and the SCN. These key events had both an advocacy component and technical substance.

When asked directly which events and strategies were critical to the policy process during the two-year period, interviewees responded that the March 2007 MNI meeting and the March 2008 SCN meeting were particularly important (Interviews #30, #31, #32, #34, #35, #36). These two events were important for internal and external framing. The success of these two events was predicated on the use of other strategies such as relationship building. For example, numerous joint trips between the lead researcher and a counterpart at NIN resulted in having an open, informal line of communication to an accessible insider's perspective. For the lead researcher, this was into the Vietnamese nutrition community, and for the NIN employee, it was into the international agency community. The NPG formation was another strategy that was critical to this process moving forward as it established opportunities for the nutrition community to convene. The NPG formation was predicated on having someone committed to its formation and functioning.

Two underlying elements present during this study emerged as being drivers of what happened, the importance of personal relationships with people in key institutions and the ability to identify, create, and make use of opportunities that would catalyze the process. Preexisting relationships and alliances were strengthened throughout this period, and new

partnerships were founded through a variety of informal mechanisms (i.e., social events). While it has been observed in other settings that the development community (both international and national) can be plagued by rapid turn-over of staff, this two-year period was one of relatively little turn-over amongst key actors. Additionally, what turn-over did occur was positive. Key agency positions that were replaced during this period of time benefited from supportive and collaborative personalities that actively engaged in the on-going process. After the end of the formal study period, two critical actors from key agencies left their posts; there is evidence that both of their replacements will continue with the work as planned.

The ability by various actors in the nutrition community to identify, create, and make use of catalytic opportunities also emerged as a driver of the process. Reliance on informed local collaborators and a deep understanding of the context were important factors to actualizing these opportunities. For example, it emerged over a period of time that competition was a powerful motivator in Viet Nam. Viet Nam wants to be a world leader, to perform well in any internationally compared assessment like the Millennium Development Goals, and to attract international events that present the country in a favorable light. Bringing the SCN meeting to Viet Nam through effective networking both in Viet Nam and Geneva proved to be successful because it utilized this desire to be an international leader, provided a forum through which to promote Viet Nam's successes, and, without being critical, created pressure that Viet Nam perform even better. Utilizing this catalytic opportunity required prior contextual knowledge of values and motivations regarding what decision makers deemed to be important, and the ability to provide resources, contacts, and other means to make it happen.

4 Discussion

In a two-year period, Viet Nam made remarkable progress towards the development of a new national nutrition strategy. The purpose of this paper was to investigate how this happened. We primarily examined the agenda-setting stage of the policy process in this paper, recognizing that different factors and strategies would emerge as drivers of change at different stages in the policy process.

Key factors that emerged as critically important to the agenda-setting process were, a) the emergence of a cohesive policy community, b) clearly defined internal and external “frames,” the articulation of which was facilitated by a series of, c) high-profile events that functioned as policy windows. Strategies that capitalized on key cultural motivations and values were especially effective. This suggests the importance of high-profile events that the international community can facilitate as a vehicle for country-level progress. Additionally, this study conveys the need to understand underlying elements like the importance of individuals and their relationships in the policy community that may influence the success or failure of specific strategies and approaches.

This study contributes to filling the gap around how to assist with the ascendance of a nutrition issue in policy agenda setting. This gap was highlighted in two recent comprehensive reviews, the World Bank’s *Repositioning Nutrition as Central to Development* (2006) and the *Lancet*’s Series on Maternal and Child Undernutrition Black et al. (2008). Both compile what is known on the biological and operational aspects of nutrition and conclude with suggesting that effective interventions exist but are not being scaled up. The World Bank report argues that much failure is due to lack of sustained

government commitment and low demand of communities (World Bank, 2007), but there is little guidance offered on how to alter the situation.

The Shiffman & Smith (2007) framework proved useful in organizing factors of interest. Not all factors in the framework needed to be strong or to change significantly to actualize policy progress. The framework was complemented with approaches to explicate values and motivations and relationships amongst people. By examining the values and motivations (e.g., trust, dedication, and interests), one better understands how ideas can be constructed to be most effective to respond to what the decision makers deem to be important.

Our intent was not to study which theoretical model of policy change best fit this situation in Viet Nam, nevertheless, we noted that some of the theoretical models used in policy literature (i.e., Advocacy Coalition Framework, Sabatier) depict an acrimonious situation where there is often a “broker” who is mediating between disparate groups. This was not the case in Viet Nam perhaps because of the stage of policy (i.e., agenda setting), the actors involved, or cultural characteristics which prize process and consensus building.

This study also demonstrated the effectiveness of the method of participating-observer and change-agent, a model that is becoming more common (Walt et al., 2008). The effectiveness of this model requires employing a person who is skilled in working in the environment in which they hope to affect change. In this sense we found that agency matters. Additional studies using the participating-observer, change-agent model is

warranted to further develop an understanding of its utility in learning about and changing policy processes).

How a participant researcher “is viewed” or situated, her institutional base, perceived legitimacy, and prior involvement in policy communities is critical to her ability to access the policy environment and conduct meaningful research, especially in policy analyses requiring engagement with policy elites (Walt et al., 2008). “Increasingly funders are mandating researchers to engage in research translation, forcing them to become policy actors.” The implication is that researchers need to be more reflective about their role in the process (Walt et al., 2008). The researcher’s role as participating-observer and change-agent could have influenced responses from informants; they may have crafted a response to please the researcher. Also, the lead researcher’s position as a foreign development worker may have influenced from whom data were collected and their interpretation. We have transparently discussed the researcher’s position earlier. Additionally, we included a diverse range of respondents, triangulated our data sources, and have had our conclusions member-checked.

Our findings that the presence of compelling characteristics (i.e., credible indicators, severity, and effective interventions) of a public health issue do not necessarily translate into greater attention or resource allocation are consistent with the findings of other researchers (Shiffman, 2006; Working Group on Priority Setting, 2000). Despite nutrition interventions consistently being ranked as excellent investments, commensurate resources are often not made available. This reality suggests that it is critical to comprehensively examine the sociopolitical characteristics of nutrition issues in addition to the biological, epidemiological, and implementation characteristics.

The consideration of sociopolitical characteristics needs to extend beyond the borders of a given country. Some researchers who have examined funding flows and donor priorities for various public-health issues have taken the perspective that “interests of individual nation-states cannot be understood by considering domestically oriented concerns alone” (Shiffman, 2006). International actors, including public and private donors, may in fact drive the public-health agenda in a given country based on their priorities. This suggests that those public-health issues that positively possess many of the factors noted in the Shiffman framework at a global level may be more easily addressed at a country level as well. Our example relates that irrespective of the global level, significant positive movement can be made at the country level with country actors taking the lead. We hope that this example can inform global efforts to strengthen what current literature has referred to as a “fragmented and dysfunctional” international nutrition system (Morris et al., 2008). We recognize that all successes at country level could be amplified by a strong international system (UNICEF, 2008); this most certainly will be the case as PAARS transitions from the agenda-setting and planning stages to implementation.

This study demonstrates that advancement of nutrition policy is possible when key factors are favorable, thoughtful strategies are used, and the international community supports country leaders to frame its own agenda. Agenda setting is necessary but not sufficient to actualize better nutritional outcomes in Viet Nam given that it is part of a larger and long-term policy process. Despite turnover in the policy community, including leadership at NIN, this process persists. Efforts are underway to define the new national program. Against the backdrop of decentralization, many issues need to be addressed including intervention selection and targeting, implementation options through the health

system, funding availability, and staff and system capacity. Rigorous prospective evaluation of this transition from agenda setting to program implementation should be conducted as it unfolds.

References

- Berg, B. (2004). *Qualitative research methods for the social sciences*. Boston, MA: Pearson Education.
- Bernard, R. H. (1995). *Research methods in anthropology: Qualitative and quantitative approaches*. Walnut Creek, CA: Altamira Press.
- Bhutta, Z. A., Ahmed, T., Black, R. E., Cousens, S., Dewey, K., Giugliani, E., Shekar, M. (2008). What works? Interventions for maternal and child undernutrition and survival. *The Lancet*, 371, 417–440.
- Black, R. E., Allen, L. H., Bhutta, Z. A., Caulfield, L. E., de Onis, M., Ezzati, M., Rivera, J. (2008). Maternal and child undernutrition: Global and regional exposures and health consequences. *The Lancet*, 371, 243–260.
- Bryce, J., Coitinho, D., Darnton-Hill, I., Pelletier, D., & Pinstруп-Andersen, P. (2008). Maternal and child undernutrition: Effective action at national level. *The Lancet*, 371, 510–526.
- Buse, K. (2008). Addressing the theoretical, practical, and ethical challenges inherent in prospective health policy analysis. *Health Policy and Planning*, 23, 351–360.
- Clark, T. (2002). *The policy process: A practical guide for natural resource professionals*. New Haven, CT: Yale University Press.
- Ebener, S., Khan, A., Shademani, R., Compernelle, L., Beltran, M. Lansang, M. A., & Lippman, M. (2006). Knowledge mapping as a technique to support knowledge translation. *Bulletin of the World Health Organization*, 84, 636–642.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, MA: MIT Press.
- Giddens, A. (1986). *The constitution of society: Outline of the theory of structuration*. Berkeley: University of California Press.
- Gilson, L., Buse, K., Murray, S., & Dickinson, C. (2008). Future directions for health policy analysis: a tribute to the work of Professor Gill Walt. *Health Policy and Planning* 23: 291–293.
- Gilson, L., & Raphaely, N. (2008). The terrain of health policy analysis in low and middle income countries: A review of published literature 1994–2007. *Health Policy and Planning*, 23, 294–307.
- General Statistic Office. (2006). *Viet Nam multiple indicator cluster survey 2006 final report*. Hanoi, Viet Nam.

- Krefting, L. (1989). Rigor in qualitative research: the assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45, 214–222.
- Miles, M., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.
- Morris, S. S., Cogill, B., & Uauy, R. (2008). Effective international action against undernutrition: Why has it proven so difficult and what can be done to accelerate progress? *The Lancet*, 371, 608–621.
- Ozanne, J., & Saatcioglu, B. (2008). Participatory action research. *Journal of Consumer Research*, 35, 423–439.
- Pavignani, E., & Durao, J. (1999). Managing external resources in Mozambique: Building new aid relationships on shifting sands? *Health Policy and Planning*, 14, 243–253.
- Patton, M. Q. (2001). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Sabatier, P. (2007). *Theories of policy process*. Boulder, CO: Westview Press.
- Shiffman, J. (2006). Donor funding priorities for communicable disease control in the developing world. *Health Policy and Planning*, 21, 411–420.
- Shiffman, J. (2007a). Generating political priority for maternal mortality reduction in 5 developing countries. *American Journal of Public Health*, 97, 796–803.
- Shiffman, J. (2007b). The state of political priority for safe motherhood in India. *British Journal of Gynecology*, 114, 785–790.
- Shiffman, J., Smith, S. (2007). Generation of political priority for global health initiatives: a framework and case study of maternal mortality. *The Lancet* 370: 1370–9.
- Sumner, A., Lindstrom, J., & Haddad, L. (2008). *Why is undernutrition not a higher priority for donors?* (ID 21, Insight Series # 373). Brighton, UK: Institute of Development Studies.
- UNICEF. (2007). *State of the World's Children*. Retrieved from <http://www.unicef.org/statistics/>
- UNICEF. (2008). *Effective nutrition programming for children and the role of UNICEF: Consensus points from an expert consultation*. New York, NY.
- Victora, C. G., Adair, L., Fall, C., Hallal, P. C., Martorell, R., Richter, L., & Sachdev, H. S. (2008). Maternal and child undernutrition: Consequences for adult health and human capital. *The Lancet*, 371, 340–357.

- Wagstaff, A., van Doorslaer, E., & Watanabe, N. (2001). *On decomposing the causes of health sector inequalities with and application to malnutrition inequalities in Vietnam* (World Bank Policy Research Working Paper). Washington, DC: World Bank.
- Walt, G., Shiffman, J., Schneider, H., Murray, S. F., Brugha, R., & Gilson, L. (2008). “Doing” health policy analysis: Methodological and conceptual reflections and challenges. *Health Policy and Planning*, 23(5), pp. 308–317.
- Working Group on Priority Setting. (2000). Priority setting for health research: Lessons from developing countries. *Health Policy and Planning*, 15, 130–136.
- World Bank. (2006). *Repositioning nutrition as central to development: A strategy for large-scale action*. Washington, DC: World Bank Directions in Development.
- World Health Organization. (2000). *Global database on child growth and malnutrition*. Geneva, Switzerland: WHO.
- Yin, R. (2003). *Case study research design and methods*. Thousand Oaks, CA: Sage.

Table 3.1: Event-Level Analysis of Strategies and Results Related to the National Nutrition Agenda in Viet Nam During 2006–2008.

Action or Strategy	Timing	Intended Outcome	Actual Results
Orientation meetings	Sept 2006	Introduce Mainstreaming Nutrition Initiative (MNI) and gather preliminary data	Relationships initiated and ideas for collaboration identified with key development partners
National level stakeholder interviews for situation analysis	Sept–Dec 2006	Identify perspectives, barriers, and constraints to nutrition progress.	Revealed how respondents viewed nutrition problems and solutions
MNI Dhaka meeting with National Institute of Nutrition (NIN) representative	Oct 2006	Present preliminary MNI directions in Viet Nam	Relationship building with NIN representative
Program site visits	Nov 2006	Understand field-level realities and gain insight into issues of translating policy into program in remote, ethnic minority areas	Better understanding of the challenges to planning and implementation of program through observation and discussion of nutrition activities
1 st Nutrition Partnership Group (NPG) meeting	Jan 2007	Create affinity group to garner support for nutrition and foster collaboration	General consensus built around (1) need for NPG, (2) agreement of host institution (3) agreement on key deliverables of the group
Consultative planning of MNI with NIN	Feb 2007	Ensure that MNI workshop is “co-owned” by MNI and NIN	Agreement on (1) agenda including objectives and desired outcomes, (2) participants, and (3) logistics
Quang Tri meeting to prepare for MNI workshop	March 2007	Ensure that provincial representatives are well prepared for MNI workshop	Discussion around nutrition situation, challenges, and recommendations from a provincial perspective
National Nutrition Strategy Meeting	March, 2007	Government of Viet Nam (GoV) review of the 1 st National Nutrition Strategy	Progress towards nutrition goals related and shared with National Assembly and provincial representatives
Formal communication initiated regarding hosting the Standing Committee for Nutrition (SCN) and <i>Lancet</i> Launches in Hanoi	Feb 2007	Test receptivity of NPG and others to host nutrition advocacy events	Various discussions held around the “pros and cons” of hosting these events, concern for “what is in it for Viet Nam.” Generally, international community not favorable to hosting SCN while GoV very favorable
Support NIN representative to attend SCN in Rome	March 2007	Facilitate learning opportunity for NIN leadership and announce SCN host	Exposure to international nutrition community for NIN representative and announcement that Viet Nam will host SCN in '08

Action or Strategy	Timing	Intended Outcome	Actual Results
Nutrition activities mapping completed	March 2007	Coverage of key nutrition actions supported by NPG members mapped	Better understanding of the frequency and coverage of key nutrition actions by the INGO community. Realization that the GoV does not have a good sense of PEMC coverage. First NPG deliverable completed
MNI workshop	March 2007	Discuss and build consensus around sociopolitical, operational, and biological/epidemiological nutrition issues and solutions in Viet Nam.	Shared understanding of the situation, challenges and opportunities facing nutrition in Viet Nam from a variety of perspectives. Created opportunity for central level nutrition community to gather and hear from provincial stakeholders. Informally discussed stunting as key focus issue in Viet Nam policy and program. Continue to support nutrition community cohesion
Nutrition Partnership meetings continue		Routine NPG meetings (SCN, <i>Lancet</i> launch focus)	Relationships further strengthened
<i>Lancet</i> Launch Calls with Country Planning Team (subset of NPG)	Spring, Summer 2007	Plan for Hanoi <i>Lancet</i> Launch	Expectations for launch, logistics, and agendas agreed upon. Key messages developed for use with focus on stunting
Provincial level planning mapping completed in Quang Tri	2007	Better understand the process of allocation of resources for development issues at provincial level as this was identified in situation analysis as bottleneck	Clarity around provincial level planning cycle and needs. Provincial actors realized weaknesses in their yearly planning process for nutrition and requested skills building support to tailor nutrition planning and response
UNICEF Stunting meeting	Sept 2007	Continue to support momentum and focus on stunting facilitated by SCN secretariat	Building upon MNI workshop further discussions of issues in preparation for <i>Lancet</i> Launch and SCN
<i>Lancet</i> Scouting visit (week of 17 th) by advocacy consultants and Bill and Melinda Gates Foundation (BMGF) to Hanoi	Sept 2007	Meet key in country partners and SCN secretariat and orient themselves to the situation in Viet Nam	Preliminary planning for event completed and technical discussions held
<i>Lancet</i> Launch	Jan 2008	Advocacy launch of the 2008 series on maternal and child under nutrition (panel discussion specific to Viet Nam)	25 stories in newspapers, on line and television (1/2 of which explicitly speak of stunting in Viet Nam), GoV announces that it will launch a plan to accelerate the reduction of stunting in Viet Nam
NIN meeting to review progress on Stunting plan for SCN	Feb 2008	Review progress for SCN meeting with focus on the Accelerated Plan for Stunting Reduction presentation	Technical review of the NIN stunting presentation for the SCN. NIN requested assistance for technical revisions from NPG members for the SCN presentation

Action or Strategy	Timing	Intended Outcome	Actual Results
SCN meeting	March 2008	NPG objective for SCN to garner further support and pressure on GoV to launch and support Plan of Action for the Accelerated Reduction of Stunting (PAARS)	BMGF provincial site visit, NIN presentation on PAARS with NPG input, Minister of Health presentation, Declaration issued by GoV to focus on prevention of child stunting
NPG meeting (PAARS focus)	May 5 2008	Ensure on-going financial and technical support for process to develop the PAARS (October ratification by MOH)	NIN presents key actions leading up to the stunting reduction plan, advisory group created and draft of a plan to draft the plan presented. International organizations pledge financial and technical support to plan development

Table 3.2: Factors Affecting Nutrition Policy Progress in Viet Nam During 2006–2008

Actor Power	
Policy community cohesion	<ul style="list-style-type: none"> • Prior to 2006, no venue for coordination amongst nutrition actors. Disparate community with little communication. In 2006, Nutrition Partnership Group (NPG) formed composed of range of actors including the Government of Viet Nam (GoV). • Current ability to respond in timely manner to events as a nutrition community which did not exist prior to the NPG.
Leadership	<ul style="list-style-type: none"> • Engaged actors from key agencies involved during the two years
Guiding institutions	<ul style="list-style-type: none"> • Nutrition ministry pulled in many directions, implementation capacity questionable, and facing pressure to be financially self-sustaining by 2012. • Viet Nam in process of decentralization and power shift to provinces away from center challenges capacities for nutrition planning and programming at all levels.
Mobilization	<ul style="list-style-type: none"> • International agencies and GoV reengaged in nutrition (financial, human resources) during the case-study time span. • In 2008 promise of additional financial resources from provinces and external funders for nutrition in Viet Nam.
Ideas	
Internal frame	<ul style="list-style-type: none"> • Plan of Action to Accelerate the Reduction of Stunting (PAARS) jointly conceived and supported financially and technically by range of actors. • Consensus of key actors regarding international agendas needing to support national policy priorities before entering into Viet Nam. Projects need to support national programs, rather than be stand alone initiatives.
External frame	<ul style="list-style-type: none"> • Previous to 2006, Protein Energy Malnutrition and underweight were spoken about as key issues in nutrition. Through consistent messages in written documents, meetings, and public speeches in all policy window events (see below), stunting became the focus.
Political Contexts	
Policy windows	<ul style="list-style-type: none"> • First ever National Nutrition Strategy review meeting held by GoV in 2006. • Mainstreaming Nutrition Initiative (MNI) meeting with key nutrition actors created opportunity for central and provincial nutrition leaders to meet and discuss issues relevant to each of them and hear about promising practices in community based programming. From this meeting, focus on stunting emerges. • UNICEF hosted a follow-on meeting to the MNI meeting focused on stunting, facilitated by UN Standing Committee for Nutrition (SCN) secretariat. SCN secretariat to return to Viet Nam multiple times to help support nutrition activities. • <i>Lancet</i> Series on Maternal and Child Undernutrition selected Hanoi as one of six international locations for launch and media event. • SCN held in Hanoi with GoV ministerial attendance and presentations presenting the proposed PAARS which will become the new national nutrition program.
Governance structure	<ul style="list-style-type: none"> • National Assembly, key GoV political body, requests update on nutrition quarterly in 2008 • Minister of Health expected to ratify PAARS by end of 2008

Issue Characteristics

Credible indicators	<ul style="list-style-type: none"> • Nutrition in general well accepted, easily measured, and compared internationally. Viet Nam wants to compare well in all development indicators and is currently lagging in nutrition. • Stunting (low height-for-age) often used as an indicator of chronic nutrition, inclusive of other aspects of nutrition (linked to obesity) and development (cognition, economic productivity, competitiveness in sports). • NIN plans to collect height data more regularly in its surveillance and data collection.
Severity	<ul style="list-style-type: none"> • Viet Nam in top ten for countries with highest prevalence for stunting; much higher than it should be given Viet Nam's overall developmental situation. • Disaggregated data show stunting as high as 46% in some provinces in children <5 and that it will take more than 70 years to eliminate stunting if current rate of reduction continues.
Effective interventions	<ul style="list-style-type: none"> • Evolution from Protein Energy Malnutrition Control Program with focus on underweight to PAARS, the new national nutrition program. • <i>Lancet</i> papers highly regarded by national actors and papers identify effective and promising interventions for stunting reduction. • NPG mapping of current nutrition activities and coverage supported by members and informing current formulation of the PAARS.

Chapter 4: Article #2 Provincial Level Planning Processes for Nutrition in Decentralizing Viet Nam

By Karin Lapping, Edward A. Frongillo, Purnima Menon, Jennifer Coates and Patrick Webb

Abstract: Often nutrition policies in place at national level do not translate into effective policy or action at the sub-national level (e.g., province or region). Viet Nam is a context where the translation of national policy directives into action on the ground is challenged by a relatively new process of decentralization of planning and action. This study examined how the provincial planning process for nutrition occurred in eight provinces in Viet Nam; whether it differed across provinces, what factors influenced the planning process and if those involved in the planning process perceive it to be useful. A qualitative case-study methodology was used to interview 51 government officials involved in the planning process in 8 different provinces. Our investigation into the nutrition planning process at provincial level concluded that there was little variation in the process among provinces studied. This was likely due to the prevailing factors that influenced the process; it is a predominately fiscal exercise within the confines of a still largely centralized structure. Respondents were almost unanimous with regards to the main barriers: 1) top down approach to planning, 2) limited human capacity for planning at sub-national levels, and 3) difficulty in integrating multiple sectors. Provincial level actors were deeply dissatisfied with the nature of their engagement with the process. Our findings are consistent with other case studies in decentralizing settings that conclude that, despite the rhetoric to the contrary, too much power is retained at the central level. Transforming the provincial planning from a top-down approach is slow. A strategic multi-year approach is needed to strengthen the planning process in provinces, and will require addressing many of the key barriers.

Keywords: nutrition planning; Viet Nam; decentralization

1 Introduction

Globally, there has been progress in reducing malnutrition since the 1990s, but this progress has been highly variable across regions and countries and within countries.

Uneven progress against the Millennium Development Goals, coupled with compelling evidence of actions to take to reduce malnutrition provided by the 2008 *Lancet* Series on Maternal and Child Undernutrition, are two factors that have contributed to nutrition becoming more visible on the global development agenda. The Scaling Up Nutrition (SUN) movement has emerged as a response from the international community to

galvanize efforts in a coordinated multistakeholder approach with heavy emphasis on actions taken at the country level. A key pillar of the SUN movement's agenda is to ensure that sound nutrition policies provide an enabling context for more effective targeted nutrition-related actions. Often nutrition policies in place at national level do not translate into effective policy or action at the sub-national level (e.g., province or region; United Nations Capital Development Fund, 2005). Little is known about the planning process and the facilitators and barriers to the effective planning (especially at the sub-national level), as well as what evidence base is used to inform planning. Better understanding of how the planning process works at provincial level will help in improvement of governance and service provision as planning at a sub-national level constitutes the opportunity for the implementation of national policy.

Sub-national governments have been assigned enormous responsibilities in recent times. In countries with federal constitutions, sub-national governments have their own independent fiscal policies and development strategies that may not be consistent with policies pursued by the central government. In others, sub-national governments, acting as agents of the central government, are expected to spend on education, health, nutrition, sanitation, and agriculture. Local governments account for almost 70 per cent of poverty-reducing spending in some countries (United Nations Economic Commission for Africa, 2008). Furthermore, a growing emphasis on decentralization is resulting in significant changes in the administrative and political landscape of many countries like Viet Nam.

Decentralization is the process of redistributing administrative authority, and sometimes resources, to local communities for planning, program management, and evaluation (Management Sciences for Health [MSH], 2002). Successful decentralization of public

health and health planning depends on the provision of adequate and appropriate assistance to local communities. Providing resources, including both expertise and time, is a critical ingredient for successfully decentralizing responsibility (MSH, 2002).

Theoretically, decentralization world-wide is seen as a way to bring authorities in more direct contact with citizens. In its various forms, decentralization is seen as a way to improve the poor quality of public services, or to resolve the tensions arising from the unequal pace of growth and improvement in standards of living in different regions of the same country (Dethier, 2004).

Impacts of decentralization on service provision, equity, and poverty reduction have been increasingly studied. For example, in a study of an anti poverty program in Argentina, Ravillion (1998) found that, while overall performance in reaching poor areas improved nationally, provinces varied in their ability to reach the poor and poorer provinces were less successful in targeting the poor. Additionally, decentralization generated substantial horizontal inequality in public spending on poor areas (Ravillion, 1998). In his work entitled “Decentralization and Poverty Reduction” Katsiaouni (2003) presents examples of Ethiopia and Ghana, and surmises that in general there is little evidence that decentralization has made a considerable impact on poverty reduction. Health sector evidence suggests that decentralization in Viet Nam has not been successful thus far in Viet Nam as inequities between provinces are growing in part because of poor targeting and budgetary shortfalls (Lieberman, 2005). Two major risks associated with hastily implemented policies of decentralization are political capture of local health resources, and under-prepared middle-level management (Men et al., 2005).

Although decentralized planning and budgeting for health and nutrition is theoretically desirable in that it avoids traditional top-down models, it also raises significant challenges in terms of capacity for planning. Specifically, the planning process requires that the sub-national actors have the capability, capacity, and authority to develop plans and budgets as well as defend their content and advocate for resources with decision makers. It also requires that locally relevant programs can be designed and managed effectively. To date, the evidence has been inconsistent regarding the effectiveness of local planning initiatives in achieving health objectives at affordable costs (MSH, 2002).

Unlike other countries in the region, decentralization in Viet Nam, like its economic reform, has been a gradual process starting in the late 1980s (World Bank, 2005). The central government still exerts significant control, but provinces have increasingly greater power, including increased authority over lower levels (i.e., district and commune levels). Decentralization can take a variety of forms from devolution to deconcentration to delegation. Each represents a different level of ceding of power and resources, devolution being the most highly decentralized. The World Bank classifies Viet Nam as focusing on deconcentration which “implies a shifting of functions and resources, including personnel by central government from the metropolis to other locations. One aspect of deconcentration is that often decisions can be made on the spot, without the references to the center, but ultimately authority is retained by the center (World Bank, 2005).

Nutrition has been on the policy agenda in Viet Nam in recent times, with a high-level institution in the Ministry of Health as well as a nutrition unit at the Central Committee. In addition to well developed policies, Viet Nam has also had a “target program” the Protein Emergency Malnutrition Control Program (PEMC) which is the main

programming mechanism for the National Institute of Nutrition (NIN) to deliver services. Viet Nam is currently drafting their 2012–2020 National Nutrition Strategy which has a specific policy and program focus on reducing stunting (Lapping et al., 2011). Many challenges remain, however, in translating the policy attention and investments in nutrition into services on the ground, particularly because program planning uses a decentralized process at the provincial level in Viet Nam.

In decentralized settings, like Viet Nam, decision making and resource allocation are happening at the provincial level, and this level has become the administrative unit of intervention. Previous analyses suggest that efforts at affecting change, including increasing coverage of appropriate nutrition interventions, are best placed at provincial level (Lapping, Menon, Ngo, & Frongillo, 2007). The provincial level People's Committee develops province-specific integrated plans. These plans cut across the centrally funded programs and sectors. If activities are not identified in these plans, budgets are not allocated, and it is difficult to ensure services delivery through the extensive Government of Viet Nam system. This means that there must be advocacy for nutrition at the provincial level, but also that nutrition planning must occur at the provincial level.

Viet Nam offers a hybrid example of devolutionary planning that differs from the traditional centralized models. Health and nutrition planning in Viet Nam takes place at the central and provincial level, and offers a case study in a decentralized setting typified by fragmentation. Despite the existence of health and nutrition policies, programs and some services, lack of coherence, or fragmentation of these policies, programs and services, is a serious issue in Viet Nam. Fragmentation often results in services not

reaching the most vulnerable segments of the population. The challenges to developing locally contextualized, integrated, and evidence-based plans are manifold.

The aim of this research was to better understand the provincial planning process for nutrition in Viet Nam and to identify ways in which to strengthen it. Additionally, by adapting a framework from the policy sciences and applying it to this study, we seek to contribute to the literature on how to analyze planning processes in decentralizing contexts. To accomplish these aims, we pose three research questions: (1) How did the provincial planning process for nutrition occur in eight provinces in Viet Nam, and did the planning process differ across provinces?, (2) What factors influenced the planning process?, and (3) Did those involved in the planning process perceive it to be useful?

2 Methods

2.1 Methodological Orientation

A case-study methodology, an in-depth examination of a single instance or event(s) (Yin, 2003), was employed as it best fit the context and research questions. This is because the research questions were broadly defined, and the study included a variety of sources of evidence and covered a range of contexts and variables (Yin, 2003). Case-study methodologies are “unique in their capacity to consider political and social phenomena in their real-life context, with attention to historical influences” (George & Bennett, 2005).

A 2010 systematic review of recent health promotion literature found that overall, policy-related articles in the field still apply few theoretical insights from political sciences to study the policy process (Breton & de Leeuw, 2011). Our work was informed by social

network analysis which provided an important theoretical underpinning. Social network analysis is based on the idea that individuals are embedded in webs of social relations and interactions (Hanneman & Riddle, 2005). Given this orientation, we looked to the individuals' social environment and relations for explanations rather than the characteristics of the individual. While this approach has been useful for explaining many real-world phenomena, it leaves less room for individual agency, the ability for individuals to influence their success.

Understanding these relations and interactions often provides the most useful explanations for social occurrences and processes. Social network analysis helps to understand the structure of a system as a whole instead of isolated actors because it analyses the links between actors e.g., personal relations, flows of resources or money and information. There is a growing recognition amongst network analysts as well as other scientists that structure alone cannot explain everything; it is rather the structures that provide the environment (e.g., constraints and opportunities) within which the actors act (Wasserman & Faust, 1994). Additionally, external, institutional, and cultural factors may shape an actor's behavior and reasoning (Wasserman & Faust, 1994; Luke & Harris, 2007).

The methods of data collection which can be used for social network analysis are not distinct to social network analysis and encompass the full range of qualitative tools (Scott, 1991). Net Map, a research tool that combines social network analysis and power mapping was used during the data collection. Power mapping attempts to map influence or power of entities. In this case influence was captured through the creation of "influence towers," the height of each tower was reflective of the power of the actor.

Results from Net Map which include visualizations of the data will be reported elsewhere. This paper focuses on the textual analysis of the qualitative data rather than manipulation of that data to create maps and other depictions derived from Net Map.

2.2 Study Site and Sample

The study was conducted in eight provinces in Viet Nam (Hanoi, Danang, Khanh Hoa, Quang Ngai, Quang Tri, Thai Nguyen, Thanh Hoa and Vinh Long) from August to November of 2010. Data were collected by Institute for Social and Medical Science (ISMS), an experienced local consulting firm with well-trained researchers (including some individuals formerly employed at the National Institute of Nutrition). These provinces are a subset of the Alive & Thrive (a Bill and Melinda Gates Foundation funded project) intervention provinces that were chosen by Alive & Thrive in conjunction with government and international partners and include those that have a high burden of malnutrition in Viet Nam along with those most densely populated (www.aliveandthrive.org). Provinces were selected for both Alive & Thrive intervention and this study that vary in geography and economic situation. A total of 51 interviews were undertaken with expert sources.

In each province individuals were interviewed that we knew, from previous work, (Lapping et al., 2007) had a role to play in the nutrition planning process at the provincial level. In general, six interviews were conducted per province with individuals representing the following government groups; Peoples Provincial Committee (PPC), Reproductive Health Center (RHC), Center for Preventative Medicine (CPM), Center for Communication and Health Education (CCHE) and Provincial Health Services (PHS). In Hanoi in addition to the local actors who plan for the city of Hanoi, we also interviewed

three actors representing different departments in the Ministry of Health (MoH); these included the planning unit in the MOH, a representative from the department of Maternal and Child Health, and a respondent from the National Institute of Nutrition.

2.3 Data Collection

The open ended interview questions were developed by a small team of both Vietnamese and expatriate researchers with expertise in qualitative research and network analysis who were familiar with the Viet Nam nutrition planning context. Questions were included that explored the power, goals, and perspectives of various stakeholders and their interaction with each other. An interview guide was created to assist the data collection teams which included a worksheet for each interview. An expert on network theory and data collection methods from the International Food Policy Research Institute travelled to Viet Nam to train a core team from ISMS. Teams of two people, one to interview and one to record, conducted each interview. Each interview took approximately two hours. A letter explaining the purpose of the interview and sample questions was sent to potential interviewees when the request was made for an appointment. Oral consent was obtained and the study was approved by the Tufts University Institutional Review Board.

Interviews were conducted in Vietnamese and responses were recorded in Vietnamese on the interview worksheet. These worksheets were then translated into English. A pretest was conducted in one province; all data collected were sent to the core researchers supporting this effort to review for comprehension and completeness before data collection resumed in the remaining provinces.

2.4 Data Analysis

We adapted a framework from the policy sciences (Shiffman & Smith, 2007) to organize the data. The resulting framework has four categories: actor power, ideas, political context, and issue characteristics (Table 4.1). Based upon prior work (MNI, 2007) and themes in the policy and social process literature (Clark, 2002) we have proposed subcategories that specify factors likely to be important to sub-national planning. Coding of interview transcripts was done initially based on categories and subcategories from the conceptual framework (Table 4.1), and then was expanded based upon emergent themes from the data. All data were coded by the first author using NVivo 9.0 (QSR International Pty Ltd. 2010) qualitative analysis software. The coding strategy was discussed with the second author and with an anthropologist to resolve any ambiguous or difficult examples. Examples of how data were coded were also shared with one of the other coauthors for review. After the analysis was complete and the initial results were compiled, the first author had the opportunity to share the findings with members of the provincial policy process community in Viet Nam in September 2011, this stakeholder feedback opportunity was used to validate the findings.

3 Results

The results are organized into three sections corresponding to our research questions: (1) How did the provincial planning process for nutrition occur in 8 provinces in Viet Nam, and did the planning process differ across provinces? (2) What factors influenced the planning process? And (3) Did those involved in the planning process perceive it to be useful?

3.1 Provincial Planning Process for Nutrition in Viet Nam

We first mapped out the planning process (Table 4.2), and then determined whether there was variation in the steps taken among provinces. The planning process is dictated by the ministerial level in Hanoi to the provinces. At the central level, active engagement with the provincial planning process is primarily through the National Institute of Nutrition (NIN). NIN holds a workshop each summer for the provinces. The workshop provides the guidelines for nutrition goals and finance planning (including a budget for training and implementation). NIN determines the nutrition needs of all provinces, and submits the needs to Ministry of Health (MoH). The MoH examines and submits the needs to the Ministry of Planning and Investment (MPI) for final approval by the Prime Minister (PM). The PM approves the finances and sends financial parameters to MPI. MPI sends financial information to MoH and NIN. NIN then sends financial information to Provincial Peoples Committee (PPC), Reproductive Health Center (RHC), Provincial Health Services (PHS) and Communication Center (CCHE).

At the provincial level, the PPC is in charge. The PPC is the executive arm of the provincial government, and is responsible for formulating and implementing policy. The PPC asks the PHS to coordinate all units and centers under its management to develop the annual plan for health including the nutrition plan. These units and centers include the RHC, PHC and CCHE.

In addition to ordering that the plan be made, PPC has authority to approve the local budget. The local budget can come from the province, districts, and/or commune. The districts allocate funding for communes in some development programs including nutrition. The budgets from the province and district are separate, and not all districts

have resources to contribute. Similarly, some commune level “Peoples Committees” provide a budget for commune health stations to implement nutrition activities. Nutrition is one of three national target programs for health (along with tuberculosis and malaria); a national target programs requires a counterpart budget from the province; the amount of the counterpart budget depends on the income of the province.

There were no significant variations in the steps in the process as reported by Northern versus Southern provinces, or in terms of provinces with large urban centers compared to more rural ethnic minority populations. Variations in responses from interviewees detailing the planning process were primarily due to the positionality, or how the respondent was viewed or “situated”, within a community (Walt et al., 2008). For example, some of the central-level actors were not well informed as to how the process took place at the provincial level, and some of the provincial actors, CCHE in particular, were familiar with their departmental planning process, but not with how the overall process transpired to make the provincial-wide nutrition plan. In other words, it can be concluded that the process was defined centrally, communicated to the provinces, and that most of those in authority at the province level sought to put the plan into action as required with limited attempts (if any) to adapt the process to provincial specificities.

3.2 Factors Influencing the Planning Process

The results for the second research question were organized according to the conceptual framework (Table 4.1) with broad categories including: Actor power (strength of the individuals and organizations concerned with the planning process), Ideas (ways in which those involved with the planning process understand and portray it), Political Contexts

(environments in which actors operate) and Issue Characteristics (features of the technical problem that are being addresses in the planning process).

3.2.1 Actor Power

Cohesion Among Planning Actors

Identification of key actors, and their respective roles in the planning process, was broadly consistent among respondents—in that every unit (e.g., PHS, RHC) was expected to feed their relevant contributions into the planning. One exception was the relative newcomer, the Communication Center or CCHE. The latter unit was invited to the centrally organized workshop, but their participation in the provincial-level process is still marginal as was confirmed by the CCHE respondents who could describe their internal planning process but not the larger planning effort.

Leadership and Leadership Characteristics

Multiple respondents reported that leadership in the planning process is important in part because of the interdisciplinary nature of nutrition. An effective leader would ensure coordination amongst the different actors, no specific leaders were identified, but qualities that an effective leader would possess were described. No specific leaders were identified as exhibiting these behaviors, rather respondents spoke about these qualities in an abstract way.

Effective leaders should also display an ability to influence, lobby, and be strong advocates for nutrition as evidenced by effective networking. *“Advocacy takes place in many ways (e.g., official letters or personal relationships).”* In fact, interpersonal relationships are of great importance. For example, one respondent from a Northern RHC

unit stated that *“if the nutrition program leaders have a good relationship with PHS and PPC, they give a lot of support. The budget has been reduced only a few times.”* The importance of personal relationships and influence was also noted at the central level where one MoH official stated that it was perceived that strong relationships translated into increased funding levels for the province: *“Personal relationship among leaders in an effort to get more funding for the nutrition program. Sometimes, thanks to the good personal relationship provinces received more funding from NIN.”* The importance of personal relationships suggests that the planning process is an inherently political one.

Coordination and Communication of Responsible Institutions

Generally, institutions did not coordinate well; this was found to be true horizontally at both central and provincial levels, and vertically between central and provinces.

Respondents noted that enhanced coordination would lead to better and more efficient plans in part because limited funds could potentially be leveraged with better coordination. For example, one person from a provincial level PHC center stated that *“I think NIN and PPC did not manage well because during the planning process, there was no discussion among the separate units and PHS in order to unify nutrition activities. If we could organize a meeting for all the actors involved, even the unions, we would have a more diversified and better plan for the province.”* Clearer communication and direction from key central level institutions to the provincial level would be beneficial since the process is still dictated by the central level. Similarly, a senior level cadre responsible for health sector planning and programs argued that: *“I really want MoH and NIN to have clear directions from the province down to the commune levels to improve effectiveness (especially for the province level). PHS had to take the lead the whole time, from the*

planning process to implementation of activities. PHS also had to direct RHC, CPM and CCHE on collaboration.” At provincial level, clearer communication could result in a stronger more efficient plan “*I think the contact among these three centers is weak, and I hope that next year it can be strengthened. They should sit down and discuss together in the beginning steps of planning in order to better understand each other’s plan and have the best orientation for making and implementing a nutrition plan.*” Some respondents noted that, if the process was managed well by institutions, this was largely attributable to an individual rather than the organization or leadership of the organization. While NIN is the guiding institution for technical matters and resources flow through NIN for nutrition the data suggest that they perhaps can only be so effective as many decisions like overall funding allocations for nutrition are not within their jurisdiction or power. However, if NIN were more influential at the central level perhaps they could convince MPI and the National Assembly to invest more resources (both financial and human) into nutrition.

3.2.2 Ideas

Agreement About Barriers and Facilitators

In addition to a shared understanding of the general steps in the planning process (Table 4.1), there was agreement among provincial respondents regarding the perception of the main barriers. These included: (1) plans are not locally relevant, (2) lack of human and financial resources, and (3) lack of involvement of other sectors and organizations.

Almost all of the respondents at provincial level expressed that the planning was “top down” and should be from a more “bottom up” approach.

“The flow of the planning process has to go from lower to higher levels, initiating from the communes. However, in fact, we mostly planned based on the reality of the situation in the communes and national budget, meaning that we make plans according to the level in the national budget. If the budget is quite large, many activities are developed, and it does not necessarily stem from a commune’s needs.” Another respondent from a northern province commented that *“The plan does not stem from local, practical needs, but rather on the priorities to achieve the stated targets”* thus, top down planning was viewed as *insensitive to local realities.*

Provincial respondents also thought that the central leaders were out of touch with the provincial realities. *“I think the higher level of health authorities should closely watch local situations and care more about the communes or hamlets. They should go to the field to see and to grasp the local situation because, in my point of view, there are many necessary activities that need to be implemented there, but we have no money to do it.”* In this sense the top-down planning was especially problematic as it is perceived as being done by central level bureaucrats who are not knowledgeable about the local situations and therefore do not create plans that can be effective in addressing local needs and realities.

Lack of resources, both human and financial, were noted consistently amongst provincial actors as a barrier to both the process and effective implementation. *“There remains a gap between proposed activities and local reality. We would like to implement many activities for supporting local people. However, implementation is difficult due to a shortage of human resources, weak capacity, a lack of qualified staff in the nutrition counseling division, and low capacity for conducting communication in the community. It*

requires a much higher budget, which was not approved.” When respondents quantified the budget allocations they consistently related that the budget was increased about 10% each year, but that there were not enough funds at central or local level to implement activities and meet targets. *“Normally the estimated budget for this year is about 10–20% higher than the previous year. If any issues emerge, a budget increase is proposed. The estimated and approved budgets for last year were very tight. The approved budget was presented by the National Institute of Nutrition (NIN) in the annual plan implementation conference, along with activities. Last year, PMC did not get fund from the province, only fund from NIN.”*

The lack of capacity was also noted by the central level more in terms of implementation rather than planning, perhaps in part, because the provincial role is often relegated by the center to one of implementation. *“The most difficulty is with provinces. At the national level, I think the process is fine because the staff in the Ministries are qualified and they have years of experience. The local staff implement nutrition activities, their level of professional knowledge is very important. Nutrition programs will not work if the local staffs are not qualified. The network of nutrition collaborators at commune level is also important, however MOH and NIN cannot intervene but it is provincial leader to strengthen this network. They do or not do depending on their human resource and whether they are interested in nutrition. It is important to identify which organization at provincial level should implement nutrition program.”*

Another often related barrier was the need to enhance the capacity of staff both in a general sense but specifically related to planning skills. *“About planning skills, I have had to work on nutrition programs for 6 years, but I think we still are not trained well.*

We still have to follow NIN's form, and it is outdated." This issue was mentioned by a majority of respondents reflecting their desire to be more effectively involved in the planning process.

Lack of involvement of other sectors and organizations was noted as another key barrier. While there was not always agreement around the stage at which other sectors (i.e., education) and organizations should be involved, their involvement was generally viewed as something that would positively impact outcomes as the mass organizations (e.g., Women's Union, Farmers Association) in particular were seen to have an important role to play. *"I think that they (mass organizations) do well in their participation in implementation, but they do not get involved in the planning process. It would be better if they joined in the first steps because they have a nationwide network, so they can share a lot of useful information and experience. As far as I know, they still have not been funded by the government. In order to attract them, NIN and MoH should take a look at them."*

While another respondent stated *"the role of the Women's and Farmers' Union, and Education Department need to be increased because they work closely with the community to implement nutrition activities, and they do not only provide information. They also do not participate much in terms of planning. I think that before making any plans, the other related unions and offices such as the Women's Union, Farmers' Union, DPI, DoF, CCHE and CPM should sit down together to discuss and give their ideas about the plan to make it better. They should show their roles in nutrition plans. Now, they just contribute information."* In the Viet Nam context the mass organizations like Women and Farmer's Unions have deep reach into community through their community level extension agents and their members are often quite influential.

Consensus was almost unanimous that the main barriers to the provincial planning process included top down planning, lack of human and financial resources and lack of integration of other sectors to create comprehensive and efficient plans.

3.2.3 Political Contexts

Policy Windows

As was related above, the main policy window for the PPN is the NIN annual workshop. Most respondents did not think that this was as effective as it could be for a multitude of reasons including organization and preparation. *“Every year the National Institute of Nutrition (NIN) organizes a meeting that summarizes nutrition activities of the previous year and gives an orientation for the next year. The organization of the meeting is not good because there is a lack of documents (e.g., communication documents, nutrition products, etc.), and the way they explain goals, indices, etc. needs improvement.”* Many respondents thought that there was opportunity to create policy windows at provincial level. It was viewed as potentially beneficial as it could enhance the quality of the plan and eventual implementation. *“If we could organize a meeting for all the actors involved, even the unions, we would have a more diversified and better plan for the province.”* Another respondent from a Southern province stated that the central authority should mandate a multi sectoral meeting *“NIN should give instructions to PHS to conduct a workshop with actors involving in the nutrition program on how to cooperate with each other in order to improve implementation.”* Convening a cross sectoral meeting where planning could be done by provincial teams could benefit the entire process and more likely ensure an integrated response.

Provincial level authorities also suggested that advocacy workshops be held to engage others including higher political levels to enhance their understanding of nutrition and the role they might play to benefit national and provincial outcomes. *“They should organize advocacy meetings to advocate higher levels or through command documents in order to get higher levels’ attention. They also should advocate NIN and MoH because NIN and MOH are on duty for the office of national goal programs, and they are at the government level, so they have power to increase the budget. Higher levels should care more about Thanh Hoa province because Thanh Hoa is a big province, the third biggest province in nation and includes 11 mountain districts plus 300 highland communes.”* It is clear from this perspective that a positive outcome of advocacy workshops would be seen in the increased allocation of resources to provinces from the center.

Governance Structure

Many thought that nutrition being a national target program distorted the provincial plans in two main ways: (1) targets being manipulated to show success, and (2) financing associated with target programs. *“In my opinion, making plan as the way we have been doing is very simple and easy. I have done this for many years, it took me about one week to make an annual nutrition plan which would be approved without reservation. However, I am not satisfied with those plans. What I really wanted is to have a good scientific evaluation to have correct information to develop the plan. I am frustrated because everything is made based on the target (national and provincial targets), and we are supposed to show the achievement each year that leads to made up data. Consequently, it harms the program because we develop the plan and budget for activities based on incorrect information.”* In this sense the naming of nutrition as a

national program is undermining the ability of provinces to plan well given the dynamic around altering data to be politically palatable.

Decree 147 was mentioned overwhelmingly as a major barrier to creating effective nutrition plans. Decree 147 mandates costing for target programs. This decree is set by the Ministry of Finance and places parameters around resources including the number and payment of nutrition collaborators (the main community actor in the nutrition program). *“I think it is very difficult to plan smoothly because, as you know, all expenses of activities under national target programs have to be based on Decree No. 147. However, if we follow the Decree closely, we cannot in fact implement activities. For example, nutrition collaborators and hamlet providers play an important role in the implementation process, but their payment is restricted in No. 147.”*

3.2.4 Issue Characteristics

Credible Indicators

Accuracy of data was frequently noted as a significant issue from the provincial respondents. Data were not considered credible as they were manipulated to portray a specific situation. One respondent stated that *“the province used the official data (approved by NIN) to make the plan but when they implemented the plan, they based on the data from the province. Because they were aware that if they reported a high malnutrition the province would receive more investments from the central government, when the government officials monitored the malnutrition survey process, local staff usually weighs malnourished children to ensure that they had a high rate of malnutrition*

in the province.” This indictment of data, both local and national, was an often reported issue by respondents at both provincial.

There were also many issues with the data sources and data management. Some reported that the NIN surveillance 30 by 30 cluster surveys were used while others noted that they would prefer using other data because often the findings of the various sources diverged.

“We mostly receive information from PHS, and we do not know where they get it. In my view, in order to make good plans, we have to collect information from the hamlets and even from the people. Data between NIN and the Provincial Statistics Office sometimes do not match, perhaps because of sampling, so I think these two units should work together. Regarding child measurement data, I think we should have various surveying tool and standards for each region; for example, we need separate standards for people living in the city and minorities as this will help us to avoid information errors.

Information used for making plan: we do not have the budget to conduct evaluations or surveys so we still have to use information from reports to make a plan.” Criticism of data was invoked to explain why better plans could not be produced.

Issues of data integrity and accuracy however, were not perceived to be an issue at central level according to one central level respondent. *“At present, NIN conducts nutrition surveys to measure the rate of malnutrition and evaluate the monitoring network through Centers of Preventive Medicine (CPM). In addition, CPM takes full responsibility for conducting nutrition surveys and collecting data which is sent to NIN for analysis.*

Although some provinces have the capacity to analyze data, their abilities do not yet meet NIN’s expectations, so the institute continues to conduct data analyses. In my point of view, all reports which were sent up to higher levels were program progress reports, not

program evaluation reports. We consider these reports as reference materials. I believe the nutrition data is accurate because data systems have been set up for many years, and the staff are qualified and have a lot of experience in analyzing and managing data. Moreover, NIN analyzes nutrition data from units in order to check if their results are correct or not.” It appears that there is little consensus between provincial and central level actors regarding the integrity of the data being produced.

Severity

Respondents from both provincial and central levels noted that there is an attempt by both national and local actors to target resources based on severity. Numbers, however, might be altered to either (1) make the severity look worse to get more resources, or (2) make results look better to achieve targets. Nevertheless the concept of targeting resources based on an assessment of need seemed to be an accepted planning principle. *“Priority is given to communes having high rates of malnutrition for children under 5 years old (Hanoi). We focused on ethnic minorities because the rate of child malnutrition in this population is 40%.”* In this sense, despite the challenges of the data, it appears that local actors, like this one from a Central province, tried to use the data to prioritize those in need.

Effective Interventions

Alignment between the budget and planned activities is not perceived to be a problem because the budget and the cost norms of Decree 147 dictate the nutrition plan, but the majority of interviewees did not think that the plans were relevant for the local setting.

“The nutrition program has some difficulties with the financial regulations, specifically the Decree No. 147 of the MOF. For activities not listed in the Decree 147, they cannot get funded so it is difficult to make a plan responding the local needs.” Thus, while there is little to no discrepancy between the budget and activities it is clear that the plans are inadequate to address local needs in part because of central level regulations.

Most respondents at provincial level thought that adherence to Decree 147 was responsible for compromising the effective delivery of nutrition interventions as it restricts the compensation of the front line workers, the nutrition collaborators which lead to rapid turnover. *“The support for nutrition collaborators according to Decree 147 is too low, limiting grassroots-level participation. If it is increased, it will attract more participation from officers at grassroots level. In addition, a low allowance affects the length of time that nutrition collaborators work because they often move to other work. This affects the quality of training and also affects the collaborators. Staff should not be changed for 5 year.”*

Some provinces related successful strategies for dealing with this systemic limitation *“In order to help village nutrition collaborators to work better, we proposed PPC to allocate more money to provide them stipends so that they would not have to work without payment for the nutrition program. Since we did not know how much monthly stipend should be appropriated to each village nutrition collaborator, because some of them worked as population collaborators, we discussed with the Provincial Population Office and proposed to the PPC to provide them monthly stipend through Provincial Population Office because population collaborators received their monthly stipends. So we reselected the village nutrition collaborators and make a new network in community.*

Evidence of creative solutions to address key barriers like the competitive remuneration of the front line workers was limited to this example.

3.3 Did Those Involved Perceive the Process to be Useful?

Provincial level actors were frustrated with the planning process. Of the 51 provincial interviews conducted, only three respondents relayed a sense of satisfaction. Two of the three were from larger cities and one was from a more rural province; each represented a different unit. Those that were satisfied primarily viewed the process as a formulaic one where each unit needs to do their job, be responsive to those making decisions, and feed into overall plans. As one respondent noted *“each unit is a screw in a larger machine.”*

The responses did not indicate a desire for the process to be more ambitious or substantive. The satisfaction among the three responses seems to be specific to the individual as other respondents from the same provinces did not share their perspective. Two of the three central level respondents did not express dissatisfaction with the process, and one from NIN stated that if there was an issue with the current process it was not *“with the center but with provinces.”* One central-level respondent from MCH unit did, however, echo the dissatisfaction that was expressed by the majority of provincial actors *“the plan is developed not following bottom up approach. Selected activities are decided by available budget rather than by real needs of the local people.”* He went on to relate that, despite his department being in charge of nutrition, they are not informed about the budget that each province is to receive and that the Department of Planning and Finance decides this despite their lack of knowledge about nutrition programs and needs.

This finding isolates a tension pervasive throughout the data. In Viet Nam, the provincial planning process in nutrition is currently largely fiscal in nature, but there is desire to

make it more substantive. As one provincial level interviewee from central Viet Nam related, planning is primarily a budgeting exercise. *“Ideally, when planning for activities suitable for each agency, we have to make a comprehensive plan and then make a budget plan. At present, the planning process goes backward; we make the plan based on the available budget.”* While another stated, *“in fact, we must look for feet that fit best with our shoes, not for shoes that fit best with our feet, so when we already receive money we make plans”* thus indicating that the plans are created to fit resources rather than the reverse scenario where a plan is created and then resources allocated.

4 Discussion

Viet Nam has made progress in reducing stunting (Glewwe, 2004; O’Donnell, Nicolás, & van Doorslaer, 2009). In the 1990s within a five year period there was a 15 point decrease in the proportion of children suffering chronic malnutrition (O’Donnell et al., 2009).

Much of this progress is likely attributable to broad economic development and societal changes that have been planned and executed in a highly centralized fashion (Lapping et al., 2007). Decentralization has been gradual over the past three decades. A concern in the execution of decentralization is that inequities can be both created and exacerbated. Inequities in reductions of stunting have widened and reductions have slowed. The provincial planning process is an opportunity to address the inequity and stagnation in reductions. Planning at localized levels would (in theory) allow for targeted and relevant plans that set forth key nutrition actions that should be implemented.

Planning is a complex social as well as political phenomenon that often involves layers of negotiation and expectations of standardized implementation. There was, in fact, little

variation in the planning process among provinces studied. This was likely due to the prevailing factors that influenced the process; namely it being a largely fiscal exercise within the confines of a still largely centralized structure. With regard to actor power, we found that the actor community was largely cohesive but that leadership by guiding institutions and coordination and communication were not strong. Respondents were almost unanimous on key barriers and facilitators to the process, we will discuss this in more depth below. Factors shaping political contexts identified moments for future action, and the governance structure proved to be important in that it further crystallized the top-down approach to planning. Investigation into issue characteristics yielded contextually important information about the quality of data, how target programs can distort targeting and results reporting, and that, while effective interventions may exist, the barriers to planning often supersede the ability at provincial level to incorporate these activities into a coherent plan.

The most critical influencers related to barriers in the planning process revealed were: (1) top down approach to planning, (2) limited human capacity for planning at sub-national levels, and (3) difficulty in integrating of multiple sectors. These findings are consistent with other case studies in decentralized settings including one review by the Asian Development Bank in Viet Nam in 2005 (Asian Development Bank [ADB], 2005). The top-down model of implementation emphasizes power as the coordination and control of others by those with authority located at the upper reaches of bureaucratic or organizational hierarchy, in pursuit of predetermined policy objectives. These objectives are established through political processes, and implementers are simply tasked with executing plans to achieve them. Discretion in implementation is generally seen

negatively by top-downers, because it undermines conformance with the predetermined policy objectives or targets set through political processes. Decentralization of decision making powers is a precondition to greater community participation.

The nutrition planning process in Viet Nam is primarily a fiscal exercise. The development literature categorizes planning processes as substantive or fiscal. Substantive planning involves the planning of societal goals and objectives of natural, human, and financial resources needed for their achievement. Fiscal planning, narrower in scope, is an instrument of substantive planning and consists of planning future budgets including current and future budget decisions, implications for financing, and the methods for obtaining the necessary resources and allocating them in accordance with national goals (Premchand, 1984).

Fundamental to decentralization is the genuine transfer of some decision-making power to sub-national actors. Fiscal planning is limited in scope and not sufficient to truly engage planners in a meaningful and committed way that might imbue ownership. The data strongly relate that there is a desire amongst provincial level participants to have the process evolve into a more substantive one and allow them to not only be engaged but to make decisions around processes, goals, priorities and funding levels. Lack of ceding of power by the center to sub-national levels was documented by Men et al., in Cambodia. “The key problem faced in implementing a decentralized approach to priority setting was that, despite the policy rhetoric, too much power was retained at the national level. Central guidance and direction is, of course, required in any budgeting process in order to bring together the inputs of many different areas and facilities and, in particular, to offset the potential resource allocation inequities that might result from a fully decentralized

process. To support partnership in priority setting at the local level, however, such guidance must allow for compromise and negotiation between actors across the system, rather than serving to constrain the influence of implementing actors over decision making” (Men et al., 2005). This finding is throughout case studies on planning in decentralizing settings (Gilson et al., 2006).

The difficult shift from fiscal to substantive planning may also be related to nutrition being a national target program. While being a national target program may reflect priority and high visibility, there are collateral issues. The ADB report noted that nationally targeted programs do not leave space for local targeting; this problem was also found in the UK. “Within the UK health planning, as in most social sectors, strategic development has been replaced by target setting. This is not to argue that targets do not have a place in strategic planning processes, but they are means not ends. They can only be a way of monitoring the achievement of strategic objectives; they have become a substitute for the measured process of setting strategic objectives” (which, above all, involves making choices; Thornhurst, 2003). Additionally, operational planning at the local level has been divorced from strategy development at the central level as is the situation in this case study.

Core to our findings is the underlying issue of power. Sub-national planning of a substantive nature, a component of decentralization, requires a shift in roles and responsibilities. Often these shifts are perceived as an erosion of power, but this is not necessarily the case. Based on work in neighboring Cambodia, Men et al. (2005) related that change in central-level role that is associated with decentralization reform does not equate with role diminution. In fact, a strong central regulatory role may need to be

adapted to assist sub-national levels to minimize potential risks of political decentralization, while simultaneously strengthening sub-national actors in order to take up the opportunities that political decentralization presents.

Our results highlight the need for enhanced capabilities and authority and further capacity building of sub-national actors to be able to engage fully in the planning process; this was noted by the sub-national actors themselves. Expanding the “decision space” over such domains like setting objectives and financing requires human resource development both in terms of skills and knowledge, but also the ability to negotiate and manage (Grundy, Healy, Gorgolon, & Sandig, 2003). Capacity building would serve to alleviate the tension between the official effort to decentralize planning and the statements often made by government officials that lower levels are “incapable of planning and managing development” (ADB, 2005). Planning in a general sense is common to all governments, although the specific emphasis and the techniques of planning depend on the prevalent political philosophy (Premchand, 1984). The next phase of *doi moi*, renovation, will challenge the traditional role of the state and demand additional skills from policy makers and civil servants in an effort to strike a balance between central ministry regulatory powers, deconcentrated administrative authority and sub-national leadership and action.

Erasmus and Gilson (2008) write about power in relation to planning processes. They note that generating information that reveals the influence of power over policy implementation is not straightforward, even in relation to the common method of interviews. We were aware of this challenge from the outset and tried to mitigate this limitation by using a mix of methods (SNA), but are cognizant that power and influence remain difficult domains to capture and interpret. Understanding the political dimensions

of health policy, like power, is critical to understanding the policy-making process. The bulk of policy analysis in public-health research is concerned with measuring and evaluating policy impacts and outcomes and pays little attention to the policy-making process (Maluka et al., 2011). Navarro (2008) posited that many public-health researchers are reluctant to actively engage with policy and politics, but it is only through this active engagement that a better knowledge of policy processes can be acquired. This understanding enables researchers and practitioners to conduct more realistic research and evaluation, better anticipate opportunities and constraints on governmental action, and design more effective policies and programs (Oliver, 2006; Walt & Gilson, 1994).

5 Conclusion

Despite being two decades old, Walt and Gilson's (1994) observations that "while there is a lack of policy analysis on health reform in developing countries, there is a sparse literature which is concerned with actors and their roles in health policy making, and with political economy approaches to health" still ring true. We have tried to contribute to this knowledge gap through an analysis of the provincial planning process in Viet Nam. A careful unpacking of the process at the provincial level suggests that it is largely driven by fiscal concerns, with little variation across administrative units; that is, the latter obey their (centrally-provided) instructions to be best of their ability based on prevailing resource constraints. The constraints identified—top down, lack of capacity, and difficulty integrating sectors—are in large part due to the issues related to decentralization and devolution of power.

Transforming the provincial planning from a top-down approach is slow. A strategic multiyear approach is needed to strengthen the planning process in provinces, and will require addressing many of the key barriers we have discussed in this paper. There are indications that this is happening in nutrition as evidenced by regional planning workshops hosted by NIN and supported by Alive & Thrive and UNICEF that focus on building planning and budgeting capacity of provincial actors. These workshops utilize planning tools that incorporate the articulation of objectives and strategies based on a situation analysis using local data. Fiscal issues are being discussed in a more open and transparent way, and more stakeholders are being included and the process clarified.

Efforts will focus on tracking of the process and the resultant plans over the next few years as will prospective analysis to tie these actions to positive nutrition outcomes for the communities served. We constructed a framework by which to organize and analyze our data, this framework, adapted from Shiffman and Smith (2007), was helpful in identifying the key barriers and facilitators to the planning process, however, it should be refined for future research to further enhance its utility for planning processes. Future research should also investigate the role of power in planning processes which our work revealed plays an important role in decentralization, an inherently political process. As sub-national actors become more involved in planning processes assessment of current and needed capacities will be critical to ensuring that they can engage fully and successfully in the planning process.

Table 4.1: Factors Influencing Sub-national Planning Processes

Actor Power: The strength of the individuals and organizations concerned with the planning process

- Cohesion among planning actors: the degree of coalescence among the network of individuals and organizations that are centrally involved with the process (Who are they key actors? How do they view the planning process?).
- Leadership and Leadership Characteristics: the presence of individuals capable of facilitating and championing the planning process and the strategies they employ.
- Coordination and Communication of Responsible Institutions : the effectiveness of organizations or coordinating and communication mechanisms with a mandate to lead the planning process.

Ideas: The ways in which those involved with the planning process understand and portray it

- Barriers and Facilitators: the degree to which the planning community agrees on the definition of, causes of, and solutions to the problem (How do actors describe the planning process and do they describe it in the same way? What are the facilitators and barriers to planning at sub-national levels?).

Political Contexts: The environments in which actors operate

- Policy Windows: political moments when conditions align favorably for the planning process, presenting opportunities to influence decision makers.
- Governance structure: the degree to which norms and institutions operating in a sector provide a platform for effective collective action (What are the contextual realities that influence the planning process? Does the planning process identify actors and institutions capable of taking the action needed?).

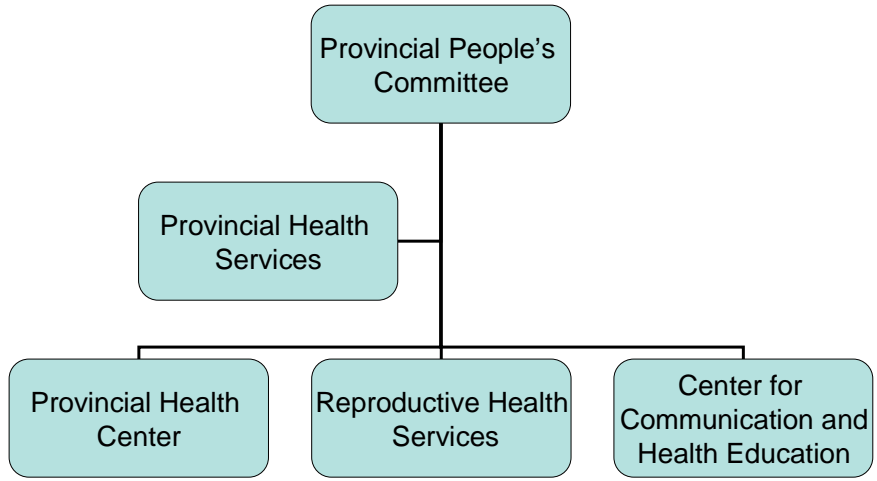
Issue Characteristics: Features of the technical problem that are being addresses in the planning process

- Credible indicators: clear measures that show the severity of the problem and that can be used to monitor progress (Is there credible evidence used to inform the planning process?).
 - Severity: the size of the burden relative to other problems as indicated by objective measures (Is there consistency between the burden and the planned allocation of resources?).
 - Effective interventions: extent to which proposed means of addressing the problem are clearly explained, cost effective, backed by scientific evidence, simple to implement, and inexpensive (Is there alignment between budget & planned activities? Are planned activities relevant for local reality?).
-

Table 4.2: Steps in the Policy Process

Step	Description of Activity
1	Ministry of Planning and Investment (MPI) announces the annual budget for all agencies in the fall. The National Institute of Nutrition (NIN) examines the rate of malnutrition in the provinces and decides which communes should be targeted. Provincial Health Services (PHS) can also propose which communes should be targeted, however, this must be negotiated with NIN.
2	Health units at district level send their nutrition plans to the Reproductive Health Center (RHC). RHC considers these as a reference plan to make the provincial nutrition plan. NIN organizes a meeting for planning guidance in October or November. About ten days before the meeting, NIN sent an official document to RHC detailing the generic contents of a draft plan.
3	NIN conducts the planning workshop. Participants in the workshop are leaders of PHS, Center for Preventative Medicine (CPM), Center for Communication and Health Education (CCHE), RHC, nutrition secretary, and an accountant. Nutrition objectives are shared as are targets, targets are usually set by NIN but the provinces can provide input. Templates for activities and budgeting of activities are shared. The activities and budget for the plan are made in accordance with Decree 147, a decree that stipulates cost norms for activities, since it is a national target program. Activities are linked specifically to the budget and many activities are fixed and cannot be altered. Initial budget figures are known during the workshop and provincial health units make a draft plan.
4	Official notification of the central budget by December.
5	Provincial actors revise the plan based on the guidelines from MoH and MPI and the official budget mark. Typically RHC and CPM develop their plans and send them to PHS where an officer in the professional unit of PHS (responsible for all national target programs) combines the plans into a general plan for the province.
6	PHS sends the plan to Department of Planning and Investment (DPI) and Department of Finance (DoF) in early January. DPI and DoF focus on financial estimation, checking cost norms; they do not review the activities. If DPI asks for adjustment in the budget typically PHS will concede. PHS reviews the final plan.
7	PHS must defend the activity plan and budget to DPI and respond to any questions. Provincial funds can be requested at this time to supplement the central funds.
8	PHS submits the plan to Provincial Peoples Committee (PPC). PPC is responsible for plan approval. The Culture and Society unit of PPC review the activities and budget. PHS provides clarifications if needed. Leaders of the PPC approve the plan.
9	Once approved by the PPC, DPI and DoF allocate funding for each National Target Program and funding is disbursed to the DHC through the district treasury.
10	The activity plan and budget are sent to MoH/NIN for reporting.

Figure 4.1: Provincial Level GOV Units Involved in Planning



References

- Asian Development Bank. (2005). *Strengthening provincial development planning*. Hanoi, Viet Nam.
- Breton, E., & de Leeuw, E. (2011). Theories of the policy process in health promotion research: A review. *Health Promotion International, 20*, 187–193.
- Clark, T. (2002). *The policy process: A practical guide for natural resource professionals*. New Haven, CT: Yale University Press.
- Dethier, J. (2004, September). *Decentralization and poverty reduction: Exploring the linkages*. Paper presented at the Organisation for Economic Co-operation and Development Workshop on Decentralization and Poverty Reduction: From Lessons Learned to Policy Action. Paris, France.
- Erasmus, E., & Gilson, L. (2008). How to start thinking about investigating power in the organizational settings of policy implementation. *Health Policy and Planning, 23*, 361–368.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, MA: MIT Press.
- Gilson, L., Erasmus, E., Kamuzora, P., Mathews, V., Ngulube, T. J., & Scott, V. (2006). Applying policy analysis in tackling health-equity related implementation gaps (Equinet Discussion Paper 28). Cape Town/Johannesburg, South Africa: Health Economics Unit/Centre for Health Policy.
- Glewwe, P., (2004). An overview of economic growth and household welfare in Vietnam in the 1990s. In P. Glewwe, N. Agrawal, & D. Dollar (Eds.), *Economic growth, poverty and household welfare: Policy lessons from Vietnam* (pp. 1–26). Washington DC: World Bank.
- Grundy, J., Healy, V., Gorgolon, L., & Sandig, E. (2003). Overview of devolution of health services in the Philippines. *Rural and Remote Health, 3*, Article 220.
- Hanneman, R. A., & Riddle, M. (2005). *Introduction to social network methods*. Riverside: University of California, Riverside. Retrieved from <http://faculty.ucr.edu/~hanneman/>
- Katsiaouni, O. (2003, November). *Decentralization and poverty reduction: Does it work?* Paper presented at the Fifth Global Forum on Reinventing Government, Mexico City.
- Lapping, K., Menon, P., Ngo, T., & Frongillo, E. (2007). Viet Nam Country Report: The Mainstreaming Nutrition Initiative. Hanoi, Viet Nam.

- Lapping, K., Frongillo, E. A., Studdert, L., Menon, P., Coates, J., & Webb, P. (2011). Prospective analysis of the development of the national nutrition agenda in Vietnam from 2006 to 2008. *Health Policy and Planning*, 27, 32–41.
- Lieberman, S. (2005). Decentralizing health: Lessons from Indonesia, the Philippines, and Vietnam. In *East Asia decentralizes. Making local governments work in East Asia*. Washington, DC: World Bank.
- Luke, D., & Harris, J. 2007. Network analysis in public health: History, methods, and applications. *Annual Review of Public Health*, 28, 69–93.
- Maluka, S., Hurtig, A. K., San Sebastian, M., Shayo, E., Byskov, J., & Kamuzora, P. (2011). Decentralization and health care prioritization process in Tanzania: From national rhetoric to local reality. *The International Journal of Health Planning and Management*, 26, e102–e120.
- Management Sciences for Health. (2002). *The manager: Management strategies for improving health services* (Vol. 11, Issue 1). Boston, MA.
- Men, B., Grundy, J., Cane, J., Rasmey, L. C., An, N. S., Soeung, S. C. & Biggs, B. A. (2005). Key issues relating to decentralization at the provincial level of health management in Cambodia. *The International Journal of Health Planning and Management*, 20, 3–19.
- Navarro, V. (2008). Politics and health: A neglected are of research. *European Journal of Public Health*, 18, 354–355.
- O'Donnell, O., Nicolás, Á. L., & van Doorslaer, E. (2009). Growing richer and taller: Explaining change in the distribution of child nutritional status during Vietnam's economic boom. *Journal of Development Economics*, 88, 45–58.
- Oliver, T. (2006). The politics of public health policy. *Annual Review of Public Health*, 27, 195–233.
- Premchand, A. M. (1984). *Government budgeting and expenditure controls. Theory and practice*. Washington DC: International Monetary Fund.
- QSR International Pty Ltd. (2010). NVivo qualitative data analysis software, Version 9. Cambridge, MA.
- Ravillion, M. (1998). Reaching poor areas in a federal system. (Research Working Paper 1901). Washington, DC: World Bank.
- Scott, J. (1991). *Social network analysis: A handbook*. London: Sage.
- Shiffman, J., & Smith, S. (2007). Generation of political priority for global health initiatives: A framework and case study of maternal mortality. *The Lancet*, 370, 1370–1379.

- Thornhurst, C. (2003). The use of problem structuring methods in strategic health planning. *International Transactions in Operational Research*, 10, 381–392.
- United Nations Capital Development Fund. (2005). *Delivering the goods: Building local government capacity to achieve the Millennium Development Goals: A practitioner's guide from UNCDF's experience in lesser developed countries*. Retrieved from <http://www.uncdf.org/sites/default/files/Download/UNCDF>
- United Nations Economic Commission for Africa. (2008). *Concept note: The role of sub-national jurisdictions in achieving the millennium development goals*. Addis Ababa, Ethiopia.
- Walt, G., Shiffman, J., Schneider, H., Murray, S. F., Brugha, R., & Gilson, L. (2008). “Doing” health policy analysis: Methodological and conceptual reflections and challenges. *Health Policy and Planning*, 23(5), pp. 308–317.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications (Structural analysis in the social sciences)*. New York, NY: Cambridge University Press.
- Walt, G., & Gilson, L. (1994). Reforming the health sector: The central role of policy analysis. *Health Policy and Planning* 9, 353–370.
- Yin, R. (2003). *Case study research design and methods*. Thousand Oaks, CA: Sage.

Chapter 5: Article #3 Determinants of Height-for-age in Viet Nam: Temporal and Spatial Change Between 1997 and 2006

By Karin Lapping, Edward A. Frongillo, Jennifer Coates and Patrick Webb

Abstract: Effective action to reduce malnutrition can only be taken by understanding the nature of the problem. We used the 1997 and 2006 Viet Nam Living Standards Surveys to examine if the relative importance of the determinants of height-for-age (HAZ), in Viet Nam changed during this ten year period and if the determinants of HAZ differ depending upon location in the country. We used regression analysis to specify a model common to both years (HAZ = region, child age (months), dependency ratio, log total expenditure, head-of-household education, household size) and a Chow test to determine whether the set of coefficients were equal. The relationships between the strength of determinants and HAZ differed in time (Chow test $F = 2.59$, $p < 0.001$). Dependency ratio, household members in the labor force (15–64 years) to dependent members, was more important in 1997 (Beta coefficient = -0.170 , $p < 0.001$) than in 2006 (0.022 , $p = 0.748$) while household size was more important in 2006 (0.598 , $p = 0.008$) than in 1997 (0.341 , $p = 0.05$). In 1997 head-of-household education had a stronger association (-0.14 , $p = 0.042$) while in 2006 log total expenditure played a more important role (1.366 , $p < 0.001$). To test for regional effect modification we created interaction terms. In 1997, no statistically significant differences of determinants between regions were observed. In 2006, the association of child's age ($p = 0.015$) and dependency ratio ($p = 0.033$) with HAZ differed by region and may be indicative of the growing disparities seen in Viet Nam. Our findings demonstrate that aggregate countrywide measures of progress can mask important differences across regions and that the relative importance of determinants of HAZ may change over time. Targeted actions need to be taken to address regional differences and shifts in the importance of determinants in order to accelerate reductions in stunting.

Keywords: height-for-age; determinants; Viet Nam; chronic malnutrition

Introduction

In many parts of the world, there remain unacceptably high rates of malnutrition (e.g., stunting) despite rapid and sustained economic growth and development (Headey, 2011). This lack of progress (Lateef et al., 2011) coupled with the recognition that nutrition is critical to broader economic, social and human development (Black et al., 2008; Nabarro, Menon, Ruel, & Yosef, 2012; World Bank, 2006) is translating into consensus that reducing malnutrition is an important goal. There is less agreement however on how to reduce malnutrition (Headey, 2011). Effective action to reduce malnutrition can only be

taken by understanding the nature of the problem. We need to know and understand the primary determinants and how they have changed with time or differ with location and culture. This understanding will help ensure that programs and policies are addressing the current primary drivers of malnutrition. Using the widely accepted UNICEF framework (UNICEF, 1990) to guide their work in a cross-country analysis explaining malnutrition in developing countries, Smith and Haddad (2002) relate that the range of factors that can influence nutrition are extremely broad, from political stability to slowing economic growth to acute respiratory infections and diarrhea (Smith & Haddad, 2000). The authors stress the necessity to understand the situation in order to contextualize an appropriate and effective response to the situation (Smith & Haddad, 2000). There has been work detailing the geographic (Linnemayr, Alderman, & Ka, 2008; Pathak & Singh, 2011; Smith & Haddad, 2000) and ethnic (Baluch et al., 2009; Marini & Gragnolati, 2003; Sánchez-Pérez et al., 2007) dimensions of malnutrition but less investigation of how these factors change longitudinally especially in rapidly changing societies. Pathak and Singh conducted one such analysis of nationally representative data from India over three different time periods and found that the concentration of malnutrition remained disproportionate among the poor irrespective of state of residence (Pathak & Singh, 2011). Another study using Demographic and Health Survey (DHS) data from two time periods in Kenya found through regression analyses that the strength of association of some of the determinants, like ownership of assets, did differ over time (Ndeng'e, 2005). The study did not explore the spatial elements of this change.

Viet Nam is an example of a rapidly changing society. In the early 1990s over half the population lived in poverty while in 2008 this number was only 14.5% of the population

(Vietnamese Academy of Social Sciences, 2012). *Do Moi*, or “renovation,” a set of economic and social policies that transformed Viet Nam from a socialist command economy to a socialist market economy, is widely attributed with producing robust economic growth and societal change (Hop & Khan, 2002; Molini, 2006). At the beginning of the reform process in 1985, almost 60% of Vietnamese children under five were stunted (National Institute for Nutrition [NIN], 1986). By 1997–1998, 41% of children under five were stunted, and in 2006 it was 36.8% (General Statistics Office, 2006). Despite these reductions, Viet Nam’s stunting rates compare unfavorably with countries of a similar economic level especially since Viet Nam has relatively favorable social indicators as reflected in the Human Development Index. There is consensus that Viet Nam should, and can, do better than it is with regards to reducing chronic malnutrition (Koch & Linh, 1998; Thang & Popkin, 2003). Researchers have argued that poverty reduction and growth in income would be expected to reduce child malnutrition by addressing a range of determinants including more access to food, health care, and sanitation (Thang & Popkin, 2003). In Viet Nam, however, the reductions in malnutrition that have happened have not been uniformly beneficial; they have largely favored those with higher incomes resulting in significantly increased health inequality (Thang & Popkin, 2003). This is further confirmed by UNICEF in a Health Equity study in 2009 which concluded that there was moderate inequality in malnutrition among children under five in 1992/93; this inequality had increased substantially by 2006, even as average rates of child malnutrition declined (Knowles et al., 2009).

One implication of the societal change that has occurred in Viet Nam is that the factors that cause chronic malnutrition may not be the same as they once were, thus, for policies

and programs to be most effective they need to be based on current analyses. We investigated determinants of malnutrition using two data sets, from 1997 and 2006, specifically to determine whether (1) the relative importance of the determinants of height-for-age in Viet Nam has changed in the past ten years and (2) the determinants of height-for-age differ depending upon location in the country.

Methods

Conceptual Considerations

This study and the hypothesized determinants of HAZ were guided by concepts and findings from the literature and direct experience in Viet Nam. It is informed by the UNICEF framework (UNICEF, 1990) and includes ideas from Bronfenbrenner's (1979) ecological model of child development. In its simplest form, Bronfenbrenner's model is a set of nested, mutually shaping contexts. The contexts represent the environments or systems at different levels of proximity to the developing child. The Bronfenbrenner model has four levels of contexts: micro, meso, exo, and macro. The micro level is essentially the mother/child dyad, the meso level is the household, exo is the structures that influence the child outside of the immediate household, and macro are national-level factors.

The UNICEF framework (UNICEF, 1990) is divided into three levels of causality: immediate, underlying, and basic. These categories reflect that malnutrition results from a complex set of context specific interrelated behavioral, social, psychological, and physiological factors at the international, national, community, household, and individual levels. The immediate or proximate determinants are dietary intake and health status that

are manifested at the individual level. They are influenced by three underlying determinants at the household level: food security, care for mothers and children, and quality of the health environment. Contributing to the underlying determinants are the basic determinants of malnutrition at a community and societal level including potential resources, environment, people, and technology. This basic level includes a broad range of factors including women's status, economic, social, and cultural institutions. This framework has been used to study the determinants of malnutrition in various contexts and to facilitate analyses of differences among countries or across regions (Frongillo, de Onis, & Hansen, 1997; Smith, Ruel, & Ndiaye, 2004).

The UNICEF framework appears as a hierarchical set of potential causal factors; thus, mechanistic relationships among the levels and causes are not well represented.

Additionally, the framework tends to focus on individual outcomes rather than household outcomes and does not include a temporal element. We used the UNICEF framework informed by elements of the Brofenbrenner model to guide this study and the hypothesized determinants of HAZ. Specifically, we used the terminology of the Brofenbrenner model but adapted what each layer encompasses. The micro-level is the household, the meso-level the community, the exo-level the provincial/sub-national factors, and macro-level the national and beyond. The micro-level context includes the immediate and some of the underlying causes of malnutrition, the meso-level context includes other more community-based underlying causes, and the exo- and macro-levels encompass the basic societal, economic, political, and cultural causes of malnutrition.

Data

We used the 1997 and 2006 Viet Nam Living Standards Survey (VLSS) data from the World Bank. These cross-sectional surveys were designed to be comparable across rounds and utilize the same basic sampling procedures. The sampling frame for the 1997 VLSS was obtained from the 1989 Population Census and the 2006 VLSS was obtained from the 1999 Population Census. The survey sampling procedures for both years consisted of three stages with communes/wards selected at the first stage, census enumeration areas as the secondary sampling unit and households selected at the third stage, the methodologies have been described in further detail elsewhere (General Statistics Office, 1998, 2007). The 1997 VLSS sampled 2,254 households with children under five, the 2006 VLSS sampled 2,043 households with children under five.

The household surveys include modules on demography, education, health, employment, living expenses, household assets, housing, participation in poverty-reduction programs, and engagement in household business. Questionnaires and questions within the modules are developed based on the previous year's questionnaires to ensure comparability between the surveys (General Statistics Office, 2007). The modules however, do differ from year to year; for example, the 1997 health module included additional questions on basic child health and infant and young child feeding while the 2006 module focused on HIV/AIDS and disability. The household surveys were complemented with facility-based questionnaires (e.g., schools and health centers) and interviews with commune leaders about the commune's general status (e.g., demography, infrastructure including roads, waterways, existence of health facilities and schools and disaster risks facing the commune).

Variable Definitions

The conceptual consideration described earlier determined classification of variables selected to include in regression models. We used continuous variables whenever feasible, rather than categorizing them, to capture as much variability and richness of the data as possible.

Child stunting is the most prevalent manifestation of malnutrition in Viet Nam and the explicit focus of the Government of Viet Nam (GoV) policy and program. Stunting is recognized as the most responsive indicator of long-term malnutrition from conception to the first 2–3 years of postnatal life (World Bank, 2006). The indicator of stunting is derived from the distribution of the continuous standard deviation scores (i.e., *z*-scores) for height-for-age (HAZ). We used these *z*-scores as the dependent variable. For the anthropometric measure we set biologically implausible values, based on WHO standards, to missing; for this reason there were 45 cases set to missing in the 1997 data and 66 in the 2006 data.

Independent variables of interest included a range of characteristics representing the various levels of the conceptual model (Table 5.1). We translated, cleaned, and worked with one variable at the exo level, 16 at the meso or commune level and 18 at the micro or household level.

We categorized child age into three categories: under 6 months, 6 to 23.9 months, and 24 to 60 months. This categorization is consistent with other epidemiological analyses of child nutrition where it has been established that causes of malnutrition can differ by age (Shrimpton et al., 2001; Victora et al., 2010). We initially separated food and nonfood

expenditure, and transformed them using the base 10 logarithm. These two transformed variables were highly correlated so we combined them for log total expenditure. We created a dependency ratio variable that was calculated as the total number of productive members divided by the total members in a household. Those defined as dependent were under age 15 and over age 64, and not considered part of the labor force (<http://data.worldbank.org/indicator/SP.POP.DPND>). Maternal education has been associated with child nutritional status. We attempted to construct a variable that reflected maternal education, but the VLSS is focused on the household unit rather than individuals and it is hard to reliably identify who has which role in the home. We then tried to construct a variable reflecting the highest education attained by a female in the household. When we constructed this variable, the 2006 data had an unacceptable number of missing cases (400); we considered imputing female education from head-of-household education, but found that the data on female education were not reliable. Therefore, we used head-of household education, classified as less than upper secondary vs. upper secondary and beyond as an assessment of overall household education level attained.

Statistical Analyses

SPSS version 17.0 was used for data analysis (IBM Corp., 2008). Descriptive statistics were run for all variables of interest to better understand the characteristics of the variables and identify data values that were outliers, implausible, or missing. Frequencies were produced for all categorical data to examine the values and distributions, while we considered skewness, kurtosis, standard deviation, and range of values for continuous variables. Scatterplots were produced to examine linearity.

We used two-level mixed regression models as there was potential for variation at both commune and household levels. We started with all variables of interest and built models based on theory, prior empirical results, and results of our preliminary analysis. We first ran separate models at commune and household levels. We examined the data for redundant information, and if found, we removed one of the two variables from the model. Region and ethnicity were redundant in both data sets as evidenced by collinearity. We chose to use region rather than ethnicity in this paper because the interpretation was more straightforward and reflected the environment beyond household which was important from a conceptual perspective.

In the commune level data for 1997, region and electricity explained about 40% of the variation at commune level while in the 2006 data there was no extra variation at commune level, and thus we were unable to include commune level variables. Once we developed the 1997 model further and included both the household and commune level variables, we found that the commune level variables did not help explain HAZ beyond the household level variables. We eventually ran the household models with the full data sets as we wanted the largest sample possible (i.e., including households in urban areas with no commune data, as commune data were only collected in rural settings). Once we identified the statistically significant variables in each year, we then combined them to specify a model common to both years:

HAZ = region, child age in months, dependency ratio, log total expenditure, head-of-household education, household size

This model was run separately for 1997 and 2006. We obtained the coefficient, standard error, and p -value for each of the variables in both the 1997 and 2006 data independently. We constructed a Z -statistic for each variable and corresponding p -value to compare the coefficients for 1997 vs. 2006 as well as relate the overall explanatory value for each of the models. In addition to the variable-specific tests, we determined whether the set of coefficients in the 1997 and 2006 models were equal using a Chow test (Kennedy, 2003).

Lastly, we tested how the association of the variables of interest with stunting as an outcome was modified by region. To examine this we created interaction terms with region and each of the variables in our full household models for each year. We evaluated results based on the t -test statistic.

Results

Key characteristics of the household did not differ materially between 1997 and 2006. For example, key characteristics of children and households for 1997 to 2006 were essentially the same for children below 24 months and above 24 months of age, child gender as well as rural and urban residency (Table 5.1). HAZ improved in 7 of the 8 regions, between 1997 and 2006 with the Northwest Region being the exception (Tables 4.2 and 4.3). The Central Highlands, and Red River Delta had statistically significant differences in HAZ between the two time periods ($p = 0.001$ and $p = 0.05$ respectively) and the North Central Coast was almost statistically significant ($p = 0.06$). In 1997 HAZ means varied from -2.211 in the Central Highlands to -1.178 in the South East Region (Table 5.2). In 2006 means varied from -1.904 in the North West to -1.015 in the South East region (Table 5.3). There were shifts in the ranking of regions between 1997 and 2006 with regard to

HAZ. In 1997 three regions of the Red River Delta (includes Hanoi), North West and South East (includes HCMC) had populations of children that had higher HAZ than the reference population, the Mekong River Delta. The North East region, North Central Coast, South Central Coast, and Central Highlands had lower HAZ than the Mekong River Delta in 1997. In 2006 all regions were better than the Mekong River Delta except for the Northwest region.

Temporal Changes in Determinants

The relative importance of the determinants of HAZ in Viet Nam differed between 1997 and 2006 (Table 5.5). Multivariable models showed differences in the coefficients of determinants in 1997 compared to 2006 (Chow test $F = 2.59$, $p < 0.001$). The magnitude of the coefficient for dependency ratio was greater in 1997 (-0.170 , $p < 0.00$) than in 2006 (0.022 , $p = 0.748$); thus, a one-unit difference in dependency ratio was associated with 0.170 SD lower HAZ in 1997. Expenditure was important in both years, with higher log total expenditure associated with higher HAZ in 1997 (0.829 , $p < 0.001$) and more so in 2006 (1.366 , $p < 0.001$). In 1997 the coefficients for head of household education were smaller than in 2006. For example, in 1997, in households where the head had completed less than upper secondary school, a child was -0.14 standard deviations shorter ($p = 0.042$); the effect in 2006 was smaller (-0.032 , $p = 0.747$). In 1997, the decline in HAZ with relation to education level attained by head of household that occurs after birth was less steep (-1.206 , $p < 0.001$) than in 2006 (-1.619 , $p < 0.001$). Smaller household size was associated with higher HAZ in both 1997 (0.341 , $p = 0.05$) and in 2006 (0.598 , $p = 0.008$). The 1997 model explained 24.65% of the variability and the 2006 model

explained 13.17% of the variability. Multivariable models showed differences in the coefficients of determinants in 1997 compared to 2006 (Chow test $F = 2.59$, $p < 0.001$).

Spatial Differences in Determinants

Our second research aim examined how region modifies the relationship of other factors with height-for-age z -score. We tested for effect modification by including an interaction term for each region using the household model. In 1997 there were no statistically significant interactions which means that there was no presence of regional modification. There were no discernibly consistent patterns in the data. For example, the p -values for child's age ranged from 0.08 to 0.97, for household heads' education from 0.301 to 0.831, for dependency ratio from 0.219 to 0.991 with five of the eight regions having p -value of 0.57 or higher, for log total expenditure from 0.243 to 0.853, and for household size from 0.104 to 0.993. Coefficients for child's age ranged from -0.480 to 0.737 , for household head's education from -0.244 to 0.088 , for dependency ratio from -2.471 to 0.128 , for log total expenditure from -0.198 to 0.609 and household size from -1.801 to 2.976 .

In 2006, the association of child's age (interaction $p = 0.015$) and dependency ratio (interaction $p = 0.033$) with HAZ differed by region. There were four regions (North West, North Central Coast, South Central Coast and South East) where the differences between the HAZ of older children (24.9–60 months) and the younger children (<6 months) was well over two standard deviations (ranging from -3.1 to -2.2 ; Table 5.6). There were four regions (Red River Delta, Mekong River Delta, Central Highlands and North East) where the differences in HAZ between the older children and the younger children was closer to 1 standard deviation (ranging from -1.68 to -0.83 ; Table 5.6).

Two regions (Red River Delta and North Central Coast) had a positive relationship between HAZ and dependency ratio (0.44 and 0.58 respectively), three regions (South Central Coast, Central Highlands, and Mekong River Delta) had a negative relationship between HAZ and dependency ratio (-0.23, -0.23 and -0.40) and three regions (North East, North West and South East) had no relationship between HAZ and dependency ratio (0.02, -0.07 and -0.05; Table 5.6). The largest effects of region on the relationship between HAZ and dependency ratio were found in the Red River Delta and Mekong River Delta; they were in opposite directions (Table 5.6). All other variables including log total expenditure, household head's education, and household size showed no effect modification by region (data not shown).

Discussion

The decade between 1997 and 2006 was a time of profound change in Viet Nam. We investigated how and if the magnitude of the relationships of determinants of HAZ differed over time and geography within a context of rapid economic growth and social change. This paper provides evidence that the magnitude of the relationships between the determinants and HAZ did differ in time. Furthermore, unlike in 1997, in 2006 the relationship between HAZ and dependency ratio and child's age depended on regional geography. Our findings suggest that within a household shifts in composition of the household were important in both years. Dependency ratio, the age-population ratio of those typically not in the labor force, was more important in 1997 than in 2006 while household size was more important in 2006 than in 1997. In 1997 head-of-household education had a stronger association while in 2006 log total expenditure played a more important role.

The relationships between HAZ and child's age and dependency ratio were modified by region in 2006. In 1997, having more dependents translated into lower HAZ across the country, but in 2006 this was no longer the case. In 2006, three regions (Mekong River Delta, Central Highlands, and South Central Coast) had about the same relationship with HAZ and dependency ratio as seen in 1997, three regions had no relationship between HAZ and dependency ratio and (South East, North East, and North West), and two regions had a reversed relationship between HAZ and dependency ratio (North Central Coast and Red River Delta). This suggests that in 1997 there were no differences across regions in the way in which dependency ratio was related to HAZ, but in 2006 this no longer held true.

A similar situation exists with differences by region in the relationship between child age and HAZ in 2006. Vietnamese children begin to fall behind standards between the sixth and twelfth month of life; this reflects a common pattern in developing countries (Martorell & Habicht, 1986; UNICEF, 1989). There is a steeper drop in HAZ overall in 2006 than in 1997. But, in addition, in 2006 some regions like the Red River Delta and the North East had less of an age relationship than regions like the North Central Coast or South Central Coast where there was a very rapid decline past 6 months of age.

Examination of the unadjusted and adjusted means for HAZ broken down by age group and region demonstrates that the pattern across age groups for North Central Coast and South Central Coast is different than that for the other regions because the young infants (0-6 mos.) in those two regions had better nutritional status and not because the older age groups had worse nutritional status. Further investigation will be needed to determine why young infants in these two regions have better nutrition status than the other regions.

The effect modification of the relationships of HAZ with dependency ratio and child's age in 2006 may be indicative of the growing disparities seen in Viet Nam. From 1997 to 2006 HAZ improved nationally and in all regions but one. Aggregate measures of progress over the time mask important differences across regions; our analysis revealed that there are significant regional differences. The South East Region and the Red River Delta have consistently had the highest mean HAZ scores throughout the history of the rounds of the VLSS (Koch & Linh, 1998); this is not surprising given that Ho Chi Minh City and Hanoi are in these regions. The region with the lowest mean HAZ in the two time periods has changed from the Central Highlands in 1997 to the North West in 2006. Possible explanations for this include that historically the North West, Central Highlands, and the North Central regions had higher food insecurity while the rice growing regions of the Mekong and Red River Delta were more stable and better off. This trend may not persist into the future, though, as there has been some speculation that as rice prices increased there may have been a shift in diets towards more protein-rich foods which may enhance nutrition outcomes (O'Donnell, Nicolás, & van Doorslaer, 2009). The two consistently best regions with regards to nutritional status, the Red River Delta and the South East Region, have also witnessed the most rapid reductions in poverty over the years (61.4% and 40%, respectively in 1993 to 8.1% and 3.5% in 2008) while the poor are becoming more concentrated in the Northwest Region and the Central Highlands (81% in 1993 in the Northwest Region down to 45.7% in 2008). These regions also have quite high proportions of ethnic minority populations, 55% in the Northwest Region and 44% in the Central Highlands compared to the 2% and 5% in the Red River Delta and South East (Baluch et al., 2009). Poverty and malnutrition in Viet Nam is increasingly

becoming concentrated in the regions where ethnic minorities reside. These regions have largely been left out of market access and lack access to basic services like electricity and clean water. The households tend to be characterized by high dependency ratios and have a high percentage of household heads without primary education (Vietnamese Academy of Social Sciences, 2012).

Our finding that household size and composition in both 1997 and 2006 had a significant role to play with HAZ is consistent with Koch's analysis of the 1997 data that every additional household member increased the probability of a child being stunted (Koch & Linh, 1998). Younger children and children who live in households with higher proportion of people working and with grandmothers in the same household had a better chance of growing out of malnutrition (Koch & Linh, 1998). We found that households in 1997 with a higher proportion of people working had higher HAZ; this relationship was less strong in 2006. Household size was important in both years but more so in 2006. Our findings are consistent with O'Donnell et al. (2009) who concluded that as households become better off they have fewer children and tend to invest more in those children both nutritionally and otherwise (O'Donnell et al., 2009).

In past analyses of data from the VLSS in Viet Nam a relationship was found between the education of both the father and mother and stunting (Glewwe, Agrawal, & Dollar, 2004; Haughton & Haughton, 1997), whereas recent studies have not found this relationship perhaps because higher attainment of education is now more universal (Koch & Linh, 1998). In our analysis, head-of-household education was associated with HAZ in the 1997 data. It is highly likely that the head of household was the father. A recent study in Viet Nam by Moestue also demonstrated a positive association between child nutrition

and the education of adults living within the child household and community (Moestue & Huttly, 2008). She postulated that despite the economic growth in Viet Nam the structure of society has not fundamentally changed from its socialist roots and therefore, it is possible that the education of community members through knowledge and behavior could influence childcare.

There are several limitations to this study. We were initially interested in examining the environments or systems at different levels of different proximity to the child. We used the VLSS data sets because they included micro, meso, exo, and macro level measures. We are unaware of published work that has analyzed the commune level data from the VLSS's and endeavored to do so. The quality of the commune level data was poor, however, with many missing values and often based on the perceptions of commune leaders. We found that the commune level data did not aid in explanation, and this might have in part been due to the data quality. While some of the data content included in the VLSS is standardized, the content can shift from round to round. The 1997 data included a section on basic health and nutrition while the health module in the 2006 round was more focused on HIV and disabilities. We lacked data for some of the most proximate factors of malnutrition (e.g., feeding behaviors). These data limitations may have altered our findings.

As the 2015 deadline for meeting the Millennium Development Goals (MDGs) approaches, the low-income countries have achieved much in the way of tackling maternal and child malnutrition, yet, much more needs to be done. There is more momentum now than ever before to address malnutrition at global and country level. Movements like SUN and The 1000 Days Partnership focus on some of the factors that

are critical for scaling up nutrition successfully at the country level including developing or revising national nutrition plans and resultant programs that explicitly aim to reduce malnutrition (Bezanson & Isenman, 2010; REACH, 2011). These efforts will not be successful unless there is a thorough and current understanding of the determinants of malnutrition so policies and programs can be appropriately designed. Our work in Viet Nam suggests that ten years ago universal action could have been taken to address chronic malnutrition given the homogeneity of the country. Ten years later, however, this is no longer the case as we found that the relative strength of the relationship between factors associated with HAZ and HAZ outcomes differed depending on region. These differences suggest that targeted actions and contextualized strategies need to be taken and are imperative in order to accelerate reductions in stunting.

References

- Baluch, B., Nguyen, T. M. H., Nguyen, T. T. P., & Pham, T. H. (2009). *Ethnic Minority Poverty in Viet Nam: Background paper for the 2008–2009 Viet Nam Poverty Update* (Working paper). Retrieved from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/08/25/000333038_20110825012124/Rendered/PDF/642720WP0P107600361533B0PUBLIC0.doc.pdf
- Bezanson, K., & Isenman, P. (2010). Scaling up nutrition: A framework for action. *Food and Nutrition Bulletin*, 31, 178–86.
- Black, R. E., Allen, L. H., Bhutta, Z. A., Caulfield, L. E., de Onis, M., Ezzati, M., Rivera, J. (2008). Maternal and child undernutrition: Global and regional exposures and health consequences. *The Lancet*, 371, 243–260.
- Brofenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Frongillo, E., de Onis, M., & Hansen, K. (1997). Socioeconomic and demographic factors are associated with worldwide patterns of stunting and wasting of children. *Journal of Nutrition*, 127, 2302–2309.
- General Statistics Office. (1998). *Viet Nam living standards surveys: Basic information 1997*. Hanoi, Viet Nam.
- General Statistics Office. (2006). *Viet Nam living standards survey 2006: Preliminary report*, Hanoi, Viet Nam.
- General Statistics Office. (2007). *Viet Nam living standards survey: Basic information 2002, 2004 and 2006*. Hanoi, Viet Nam.
- Glewwe, P., Agrawal, N., & Dollar, D. (Eds.). (2004). *Economic growth, poverty, and household welfare in Viet Nam*. Washington DC: The World Bank.
- Haughton, D., & Haughton, J. (1997). Explaining child malnutrition in Viet Nam. *Economic Development and Social Change*, 45, 541–556.
- Headey, D. (2011). *Turning economic growth into nutrition-sensitive growth* (Conference Paper #6). Washington DC: International Food Policy Research Institute.
- Hop, L., & Khan, N. (2002). Malnutrition and poverty alleviation in Viet Nam during the last period 1985-2000. *Asia Pacific Journal of Clinical Nutrition*, 11, S331–S334.
- IBM Corp. (2008). SPSS Statistical Software, Release 17.0. Chicago: SPSS Inc.
- Kennedy, P. (2003). *A guide to econometrics*. Cambridge, MA: MIT Press.

- Knowles, J. C., Bales, S., Cuong, L. Q., Oanh, T. T. M., & Luong, D. H. (2009). *Health equity in Viet Nam: A situational analysis focused on maternal and child mortality*, Hanoi, Viet Nam: UNICEF.
- Koch, S., & Linh, N. B. (1998). Child malnutrition. In D. Haughton, J. Haughton, & N. Phong (Eds.), *Living standards during an economic boom Viet Nam 1993–1998. The case of Viet Nam* (pp. 63–78). Hanoi: UNDP Statistical.
- Lateef, A., Beckmann, D., Nabarro, D., Shekar, M., Taylor, A., & Walt, G. (2011). Building momentum to scale up nutrition. *Food and Nutrition Bulletin*, 32, S53–55.
- Linnemayr, S., Alderman, H., & Ka, A. (2008). Determinants of malnutrition in Senegal: Individual, household, community variables, and their interaction. *Economics & Human Biology*, 6, 252–263.
- Marini, A., & Gragnolati, M. (2003). *Malnutrition and poverty in Guatemala* (Policy Research Working Paper 2967). Washington, DC: The World Bank.
- Martorell, R., & Habicht, J. (1986). Growth in early childhood in developing countries. In F. Faulkner & J. Tanner (Eds.), *Human growth: A comprehensive treatise* (2nd ed., Vol. 3, pp. 241–262). New York: Plenum Press.
- Moestue, H., & Huttly, S. (2008). Adult education and child nutrition: The role of family and community. *Journal of Epidemiology and Community Health*, 62, 153–159.
- Molini, V. (2006). *Food security in Vietnam during the 1990s: The empirical evidence*. Helsinki, Finland: United Nations University World Institute for Development Economics Research.
- Nabarro, D., Menon, P., Ruel, M. T., & Yosef, S. (2012). *Scaling up nutrition (SUN): A global movement to accelerate progress in reducing maternal and child malnutrition*.
- National Institute for Nutrition. (1986). *Annual surveillance statistics*. Hanoi, Viet Nam:
- O'Donnell, O., Nicolás, Á. L., & van Doorslaer, E. (2009). Growing richer and taller: Explaining change in the distribution of child nutritional status during Vietnam's economic boom. *Journal of Development Economics*, 88, 45–58.
- Pathak, P. K., & Singh, A. (2011). Trends in malnutrition among children in India: Growing inequalities across different economic groups. *Social Science & Medicine*, 73, 576–585.

- Pelletier, D., Frongillo, E., Hill, R., Hoey, L., Kim, S., Lapping, K., the Mainstreaming Nutrition Team. (2007, October). *Improving Nutrition Through Interventions in Decision Processes: The Scope, Limits and Strategies of Minor Policy Participants*. Paper presented at the Annual Institute for the Policy Sciences, Claremont, CA.
- REACH. (2011). *UN REACH progress report: Accelerating the scale up of food and nutrition actions. January 2010–June 2011*. Rome, Italy: World Food Programme.
- Sánchez-Pérez, H J., Hernán, M.A., Ríos-González, A., Arana-Cedeño, M., Navarro, A., Ford, D., Brentlinger, P. (2007). Malnutrition among children younger than 5 years-old in conflict zones of Chiapas, Mexico. *American Journal of Public Health, 97*, 229–32.
- Shrimpton, R., Victora, C.G., de Onis, M., Lima, R.C., Blössner, M., & Clugston, G. (2001). Worldwide Timing of Growth Faltering: Implications for Nutritional Interventions. *Pediatrics, 107*(5), p. e75–e75.
- Smith, L.C., & Haddad, L. (2000). *Explaining child malnutrition in developing countries: A cross-country analysis*. Washington DC: International Food Policy Research Institute.
- Smith, L. C., & Haddad, L. (2002). How potent is economic growth in reducing undernutrition? What are pathways of impact? New cross-country evidence. *Journal of Economic Development and Social Change, 51*, 55–76.
- Smith, L. C., Ruel, M. T., & Ndiaye, A. (2004). *Why is child malnutrition lower in urban than rural areas? Evidence from 36 developing countries* (Discussion Paper 176). Washington, DC: International Food Policy Research Institute.
- Thang, N. M., & Popkin, B. M. (2003). In an era of economic growth, is inequity holding back reductions in child malnutrition in Vietnam? *Asia Pacific Journal of Clinical Nutrition, 12*, 405–410.
- UNICEF. (1989). *A global, regional and country assessment of child malnutrition*. New York, NY: United Nations.
- UNICEF. (1990). *Strategy for improved nutrition of children and women in developing countries: A UNICEF policy review*. New York, NY: United Nations.
- Victora, C. G., de Onis, M., Hallal, P. C., Blössner, M., & Shrimpton, R. (2010). Worldwide timing of growth faltering: Revisiting implications for interventions. *Pediatrics, 125*, e473–e480.
- Vietnamese Academy of Social Sciences. (2012, October). *Vietnam Programmatic Poverty Assessment (PPA): Poverty, vulnerability, and inequality in Vietnam*. Hanoi, Viet Nam.

World Bank. (2006). *Repositioning nutrition as central to development: A strategy for large-scale action*. Washington, DC: World Bank Directions in Development.

Table 5.1: Viet Nam Living Standards Surveys Variables with Potential Influence on HAZ Organized by Contextual Level

Contextual Level	Variable
Exo	Region
Meso	Number of people in village, main ethnicity, main religion, distance to nearest health facility, three main sources of income, number of poor households, availability of safety nets, availability of development programs, availability of public works, accessibility of commune, percent of commune households with electricity, phone in commune, main source of drinking water, receipt of disaster funds in past 12 months, main health problems, migration in past 12 months
Micro	Household expenditure, sex of head of household, ethnicity, number of people in household, number of children under five, child under five had diarrhea or acute respiratory infection in past four weeks, household water source, toilet, father's literacy, father's numeracy, highest level of education attained by father, primary form of employment of father, mother's literacy, mother's numeracy, highest level of education attained by mother, employment outside of home of mother, parity, and place of delivery of last child

Table 5.2: Key Characteristics of the 1997 and 2006 Viet Nam Living Standards Surveys Sample

Characteristic	1997 % or mean (SD)	2006 % or mean (SD)
Region	<i>N</i> = 2,254	<i>N</i> = 2,043
<i>Red River Delta</i>	15.1	20.82
<i>North East</i>	16.47	12.67
<i>North West</i>	2.76	4.56
<i>North Central</i>	17.3	14.75
<i>South Central</i>	8.4	8.34
<i>Central Highlands</i>	5.25	7.86
<i>South East</i>	16.12	11.72
<i>Mekong River Delta</i>	18.6	19.28
Weight-for-age z-score	<i>N</i> = 2,254	<i>N</i> = 2,039
<i>Mean (SD)</i>	-1.419 (1.367)	-1.0957 (1.171)
Height-for-age z-score	<i>N</i> = 2,209	<i>N</i> = 1,977
<i>Mean (SD)</i>	-1.596 (1.641)	-1.3701 (1.446)
Weight-for-height z-score	<i>N</i> = 2,236	<i>N</i> = 2,020
<i>Mean (SD)</i>	-0.724 (1.154)	-0.4571 (1.420)
Weight-for-age z-score by severity	<i>N</i> = 2,254	<i>N</i> = 2,039
<i>Normal</i>	32.06	45.55
<i>Mild</i>	39.2	33.25
<i>Moderate and severe</i>	28.73	21.19
Height-for-age z-score by severity	<i>N</i> = 2,209	<i>N</i> = 1,977
<i>Normal</i>	29.09	38.39
<i>Mild</i>	28.97	26.77
<i>Moderate and severe</i>	41.94	34.84
Weight-for-height z-score by severity	<i>N</i> = 2,236	<i>N</i> = 2,020
<i>Normal</i>	62.31	66.87
<i>Mild</i>	26.29	21.4
<i>Moderate and severe</i>	11.4	11.73
Head of household sex	<i>N</i> = 2,254	<i>N</i> = 2,043
<i>Male</i>	79.66	80.09
<i>Female</i>	20.34	19.91
Head of household education	<i>N</i> = 2,252	<i>N</i> = 2,043
<i>Below upper secondary</i>	74.9	79.8
<i>Upper secondary and beyond</i>	25.1	20.2
Household size	<i>N</i> = 2,254	<i>N</i> = 2,043
<i>Mean (SD)</i>	5.846 (2.115)	5.432 (1.818)
Number of children	<i>N</i> = 2,198	<i>N</i> = 1,931
<i>Mean (SD)</i>	3.015 (1.87642)	2.369 (1.372)
Child's age	<i>N</i> = 2,227	<i>N</i> = 2,039
<i>Under 6 mo.</i>	7.7	4.8
<i>6 to 23.9 mo.</i>	26.14	30.8
<i>24 to 60 mo.</i>	66.15	65.04
Household water source	<i>N</i> = 1,816	<i>N</i> = 1,557
<i>Protected</i>	63.07	78.45
<i>Unprotected</i>	30.77	21.26

Characteristic	1997 % or mean (SD)	2006 % or mean (SD)
<i>Other</i>	6.16	0.3
Self employed in agriculture	<i>N</i> = 2,245	<i>N</i> = 2,036
Yes	72.17	62.82
No	27.83	37.18
Dependency ratio (logged)	<i>N</i> = 2,254	<i>N</i> = 2,043
Mean (SD)	2.000 (0.658)	1.768 (0.5547)
Total expenditure (logged)	<i>N</i> = 2,254	<i>N</i> = 2,043
Mean (SD)	4.019 (0.276)	4.158 (0.273)

Table 5.3: Key Characteristics of 1997 Viet Nam Living Standards Survey by Region

Characteristic	Red River Delta	North East	North West	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta
Height-for-age z-score	<i>N</i> = 278	<i>N</i> = 286	<i>N</i> = 48	<i>N</i> = 309	<i>N</i> = 226	<i>N</i> = 215	<i>N</i> = 492	<i>N</i> = 355
Mean	-1.318	-1.827	-1.425	-1.779	-1.681	-2.211	-1.177	-1.564
(<i>SD</i>)	-1.383	-1.354	-1.205	-1.357	-1.559	-1.468	-1.402	-1.443
Total expenditure (logged)	<i>N</i> = 282	<i>N</i> = 291	<i>N</i> = 48	<i>N</i> = 315	<i>N</i> = 229	<i>N</i> = 229	<i>N</i> = 495	<i>N</i> = 365
Mean	4.037	3.928	3.867	3.954	3.399	3.991	4.238	4.071
(<i>SD</i>)	(0.30)	(0.20)	(0.18)	(0.22)	(0.25)	(0.25)	(0.31)	(0.21)
Dependency ratio	<i>N</i> = 282	<i>N</i> = 291	<i>N</i> = 48	<i>N</i> = 315	<i>N</i> = 229	<i>N</i> = 229	<i>N</i> = 495	<i>N</i> = 365
Mean	1.844	2.032	2.034	2.202	1.951	2.31	1.916	1.856
(<i>SD</i>)	(0.49)	(0.68)	(0.63)	(0.73)	(0.60)	(0.74)	(0.63)	(0.60)
Child age	<i>N</i> = 282	<i>N</i> = 288	<i>N</i> = 47	<i>N</i> = 313	<i>N</i> = 225	<i>N</i> = 224	<i>N</i> = 489	<i>N</i> = 363
Under 6 mo.	6.8	5.6	8.5	7.7	10.2	9.4	8	9.9
6 to 23.9 m.	24.5	27.4	19.1	23.0	27.6	24.6	27.6	26.7
24 to 60 mo.	68.7	67	72.3	69.3	62.2	66.1	64.4	63.4
Head of household education	<i>N</i> = 282	<i>N</i> = 291	<i>N</i> = 48	<i>N</i> = 315	<i>N</i> = 229	<i>N</i> = 227	<i>N</i> = 495	<i>N</i> = 365
Below upper secondary	56.7	74.9	56.3	69.8	82.1	85	78.6	82.7
Upper secondary and beyond	43.3	25.1	43.8	30.2	17.9	15	21.4	17.3
Household size	<i>N</i> = 281	<i>N</i> = 291	<i>N</i> = 48	<i>N</i> = 351	<i>N</i> = 229	<i>N</i> = 229	<i>N</i> = 495	<i>N</i> = 365
≤3	8.2	5.8	6.3	5.4	15.2	3.5	6.1	6.1
4	33.3	21.3	33.3	17.5	17.5	7.9	19.2	19.2
5	29.1	28.9	16.7	27.6	24.9	17.0	23.4	23.4
6	14.5	17.5	20.8	16.2	20.5	18.3	16.6	16.6
7	29.9	10.7	10.4	17.1	11.8	23.6	8.7	48.7
8	3.2	9.3	6.3	6.7	10.9	11.4	10.5	10.5
9	1.4	4.5	4.2	3.8	5.2	7.4	5.9	5.9
≥10	0.4	2.1	2.1	5.7	3.9	10.9	9.7	9.7

Table 5.4: Key Characteristics of 2006 Viet Nam Living Standards Survey by Region

Characteristic	Red River Delta	North East	North West	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta
Height-for-age z-score	<i>N</i> = 335	<i>N</i> = 307	<i>N</i> = 156	<i>N</i> = 227	<i>N</i> = 176	<i>N</i> = 187	<i>N</i> = 219	<i>N</i> = 370
<i>Mean</i>	-1.023	-1.650	-1.903	-1.449	-1.438	-1.624	-1.015	-1.506
(<i>SD</i>)	-1.471	-1.815	-1.84	-1.653	-1.52	-1.534	-1.609	-1.555
Total expenditure (logged)	<i>N</i> = 347	<i>N</i> = 319	<i>N</i> = 167	(<i>N</i> = 238	(<i>N</i> = 179	(<i>N</i> = 189	<i>N</i> = 222	<i>N</i> = 382
<i>Mean</i>	1.732	1.69	1.919	1.891	1.759	2.15	1.841	1.61
(<i>SD</i>)	-0.5	-0.508	-0.614	-0.6	-0.4414	-0.758	-0.553	-0.379
Dependency ratio	<i>N</i> = 347	<i>N</i> = 319	<i>N</i> = 167	<i>N</i> = 238	<i>N</i> = 179	<i>N</i> = 189	<i>N</i> = 222	<i>N</i> = 382
<i>Mean</i>	4.171	4.08	3.956	4.033	4.194	4.042	4.315	4.226
(<i>SD</i>)	-0.254	-0.25	-0.226	-0.23	-0.267	-0.238	-0.293	-0.251
Child age	<i>N</i> = 347	<i>N</i> = 319	<i>N</i> = 167	<i>N</i> = 238	<i>N</i> = 177	<i>N</i> = 188	<i>N</i> = 222	<i>N</i> = 381
<i>Under 6 mo.</i>	3.7	6	7.2	4.6	2.3	2.1	3.2	5
<i>6 to 23.9 mo.</i>	30.3	29.8	31.7	32.8	33.3	31.4	27.5	29.4
<i>24 to 60 mo.</i>	66	64.3	61.1	62.6	64.4	66.5	69.4	65.6
Head of household education	<i>N</i> = 347	<i>N</i> = 319	<i>N</i> = 167	<i>N</i> = 238	<i>N</i> = 179	<i>N</i> = 189	<i>N</i> = 222	<i>N</i> = 382
<i>Below upper secondary</i>	74.9	79.3	92.8	80.3	78.8	87.3	78.4	83.8
<i>Upper secondary and beyond</i>	25.1	20.7	7.2	19.7	21.2	12.7	21.6	16.2
Household size	<i>N</i> = 347	<i>N</i> = 219	<i>N</i> = 167	<i>N</i> = 238	<i>N</i> = 179	<i>N</i> = 189	<i>N</i> = 222	<i>N</i> = 328
≤ 3	9.2	9.7	5.4	5.9	9.5	6.9	7.2	7.1
4	35.4	28.8	25.1	22.7	26.3	21.7	21.6	23.0
5	24.8	18.8	18.0	32.8	26.3	21.2	27.0	25.9
6	17.6	20.1	12.6	17.6	17.3	18.0	21.2	18.8
7	10.1	10.3	21.0	11.3	12.3	11.1	9.9	8.4
8	2.6	5.0	7.8	4.2	4.0	8.5	6.8	7.3
9	0.0	3.1	4.2	2.5	1.7	2.6	0.9	6.8
≥ 10	0.3	4.1	6.0	2.0	2.2	10.1	5.4	2.6

Table 5.5: Determinants of HAZ in the 1997 and 2006 Viet Nam Living Standards Surveys

Variable	1997			2006			Comparison	
	Coefficient	SEM	<i>P</i> -value (two tailed)	Coefficient	SEM	<i>P</i> -value (two tailed)	<i>z</i> -Stat	<i>P</i> -value (two tailed)
Dependency ratio	-0.170	0.047	<0.001	-0.022	.069	.748	-1.787	0.074
Logged total expenditure	0.829	0.134	<0.001	1.365	.162	<0.001	0.074	0.073
Head of household education								
<i>Below upper secondary</i>	-0.139	0.069	0.042	-0.0312	.098	.747	-0.902	0.367
<i>Upper secondary and beyond</i>	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Child age								
<i>Under 6 mo.</i>	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
<i>6 to 23.9 mo.</i>	-1.207	0.111	<0.001	-1.619	.206	<0.001	1.758	0.079
<i>24 to 60 mo.</i>	-1.708	0.103	<0.001	-2.139	.202	<0.001	1.905	0.057
Region								
<i>Red River Delta</i>	0.2151	0.124	0.084	0.541	0.117	<0.001	-1.908	0.0564
<i>North East</i>	-0.0501	0.130	0.696	0.037	0.121	0.758	-0.497	0.619
<i>North West</i>	0.265	0.248	0.285	-0.013	0.152	0.930	0.958	0.339
<i>North Central Coast</i>	-0.023	0.129	0.856	0.322	0.133	0.015	-1.867	0.062
<i>South Central Coast</i>	-0.044	0.137	-0.747	0.106	0.141	0.451	-0.767	0.444
<i>Central Highlands</i>	-0.464	0.155	0.003	0.216	0.144	0.134	-3.220	0.001
<i>South East</i>	0.287	0.114	-0.012	0.422	0.133	0.002	-0.771	0.441
<i>Mekong River Delta</i>	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Household size								
≤ 3	0.341	0.174	0.051	0.599	0.227	0.008	-0.901	0.368
4	0.305	0.145	0.035	0.503	0.198	0.011	-0.806	0.420
5	0.182	0.134	0.194	0.465	0.195	0.018	-1.177	0.239
6	0.265	0.142	0.062	0.196	0.198	0.321	0.282	0.778
7	0.145	0.145	0.319	0.223	0.208	0.284	-0.310	0.757
8	-0.091	0.152	0.553	0.295	0.232	0.205	-1.385	0.166
9	0.035	0.169	0.835	0.251	0.273	0.360	-0.669	-0.669
≥ 10	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Intercept	-3.280	0.645		-5.682	0.836			

1 1997 Null = 2.06, model = 1.55 and 24.65% of the variability is explained estimate 1.55 and standard error 0.049.

2 2006 Null = 2.69, model is = 2.34 and 13.17% of the variability is explained estimate 2.31 and standard error 0.074.

3 Chow test: *F*-Statistic = 2.5866, *p* <0.00

4 Ref= Reference population

Table 5.6: Association of HAZ with Child's Age and Dependency Ratio Differs by region in 2006 Viet Nam Living Standards Survey Data

		<6 mo.	6–24 mo.	24–59 mo.	Dependency ratio
Red River Delta	Coefficient	Ref	–0.641	–1.157	0.434
	<i>P</i> -value (two tailed)		0.246	0.669	0.002
North East	Coefficient	Ref	–1.263	–1.688	0.037
	<i>P</i> -value (two tailed)		0.766	0.708	0.105
North West	Coefficient	Ref	–1.453	–2.346	–0.082
	<i>P</i> -value (two tailed)		0.994	0.248	0.265
North Central Coast	Coefficient	Ref	–3.374	–3.558	0.179
	<i>P</i> -value (two tailed)		0.015	0.006	0.033
South Central Coast	Coefficient	Ref	–3.25	–3.25	–0.237
	<i>P</i> -value (two tailed)		0.046	0.043	0.613
Central Highlands	Coefficient	Ref	–0.858	–0.879	–0.279
	<i>P</i> -value (two tailed)		0.562	0.569	0.625
South East	Coefficient	Ref	–1.829	–2.264	–0.022
	<i>P</i> -value (two tailed)		0.65	0.318	0.178
Mekong River Delta	Coefficient	Ref	–1.447	–1.681	–0.408
	<i>P</i> -value (two tailed)	Ref	Ref	Ref	Ref

1 The residual variance for the null model was 2.69 and for the model with the interaction terms between child's age and region was 2.39; 13.8% of the variability was explained. The residual variance for the model with the interaction terms for dependency ratio and region was 2.33. 13.6% of the variability was explained.

2 Ref= Reference population

Appendix 1

Table A1: Association Between Region and Ethnicity in the 1997 Viet Nam Living Standards Survey

Region	Hoa	Khmer- Cham	Tay- Thai_Muong -Nung	Other Northern Uplands	Central Highlands	Others	Kinh
<i>N(2254)</i>	32	55	144	98	94	38	1,793
Red River Delta	0.0	0.0	6.3	1.0	0.0	0.0	15.2
North East	0.0	25.5	44.4	43.9	3.2	0.0	9.3
North West	0.0	0.0	22.9	0.0	0.0	0.0	0.8
North Central Coast	0.0	0.0	6.3	0.0	0.0	0.0	17.1
South Central Coast	0.0	0.0	0.0	20.4	5.3	55.3	10.2
Central Highlands	0.0	0.0	8.3	2.0	84.0	7.9	7.4
South East	78.1	1.8	11.8	32.7	7.4	36.8	22.3
Mekong River Delta	21.9	72.7	0.0	0.0	0.0	0.0	17.7

Table A2: Association Between Region and Ethnicity in the 2006 Viet Nam Living Standards Survey

	Hoa	Khmer- Cham	Tay- Thai_Muong -Nung	Other Northern Uplands	Central Highlands	Others	Kinh
<i>N(2043)</i>	7	31	218	132	131	7	1,517
Red River Delta	0.0	0.0	0.9	0.0	0.0	0.0	22.7
North East	42.9	0.0	48.2	42.4	0.0	0.0	10.2
North West	0.0	0.0	37.6	54.5	0.0	0.0	0.9
North Central Coast	0.0	0.0	9.6	2.3	0.0	100.0	13.6
South Central Coast	0.0	0.0	0.0	0.0	11.5	0.0	10.8
Central Highlands	0.0	0.0	3.2	0.8	69.5	0.0	5.9
South East	42.9	9.7	0.0	0.0	19.1	0.0	12.6
Mekong River Delta	14.3	90.3	0.5	0.0	0.0	0.0	23.2

Chapter 6: Summary and Discussion

This dissertation sought to understand the sociopolitical and epidemiological dimensions of malnutrition at national, sub-national, and household levels using Viet Nam as a case study. Understanding these dimensions is critical to generate knowledge on how countries like Viet Nam must address malnutrition to successfully reduce it.

The objectives of this research were to understand why and how the national nutrition agenda moved forward in Viet Nam, how the planning process works at provincial level in order to improve governance and service provision in a decentralizing setting, and how the primary determinants of HAZ have changed with time or differ with location (e.g., region). This chapter summarizes the key findings of the dissertation, discusses implications and recommendations for practice and policy, and suggests future research.

6.1 Key Findings

6.1.2 Advancement of National Policy

Rapid nutrition policy advancement is possible if purposeful, contextually sensitive, strategies are used where favorable conditions exist, or can be created. Our analysis showed that the following elements were critical to bring greater attention to nutrition policy in the Viet Nam context: (1) building a cohesive nutrition policy community through creation and support of an alliance, (2) clearly defining internal and external frames for the nutrition problem, and (3) using and creating high profile internal and external policy windows. Strategies that capitalized on key cultural motivations and values were especially effective.

Based on the same framework as this dissertation research the MNI evaluated the conditions that helped to create political attention across five countries including the Viet Nam research presented earlier (Pelletier et al., 2011). The same factors noted above that were critical to progress in Viet Nam were found in four of the five MNI countries (Pelletier et al., 2011). The review also noted that external resource provision and civil society mobilization were not identified as crucial to the agenda setting stage in any of the countries as was the case in Viet Nam (Pelletier et al., 2011). The proceedings from a World Bank conference on the political economy of nutrition policy reforms also identified advocacy coalitions and framing events for nutrition as important to issue ascendance (Natalicchio, Garrett, Menno-Mulder, Ndegwa, & Voorbraack, 2009) consistent with our findings.

The participant-observer, change-agent model was effective in both contributing to policy advancement and documenting it. Substantial progress was achieved in part because of the strategy of embedding a participant-observer. An external evaluator stated that this model “was valuable in highlighting certain issues, including gaps and challenges, and then facilitating discussion to develop solutions. This process was very evident in Bolivia and Viet Nam with both advocacy and policy development issues” (Houston, 2010). In addition to the documented changes in policy it is unlikely that we could have gained the same insights into the factors that moved the policy community forward without utilizing this model. By using the participant-observer, change-agent model negotiations and interactions in the social and political contexts were observable. The inability to observe these social processes has been found by researchers to be limiting factors in actualizing progress (Bernier & Clavier, 2011; Oliver, 2006; Sheikh et al., 2011).

6.1.3 Provincial Level Planning

In decentralizing settings like Viet Nam, decision making and resource allocation are to happen at the sub-national level, and this level has increasingly become the administrative unit of intervention. Previous analyses suggested that efforts at affecting change, including increasing coverage of appropriate nutrition interventions, are best placed at provincial level (Lapping, Menon, Ngo, & Frongillo, 2007). The investigation into the nutrition planning process at provincial level concluded that there was little variation in the process among provinces studied. This was likely due to the prevailing factors that influenced the process; it is a predominately fiscal exercise within the confines of a still largely centralized structure. Respondents were almost unanimous with regards to the main barriers: 1) top down approach to planning, 2) limited human capacity for planning at sub-national levels, and 3) difficulty in integrating multiple sectors. Provincial level actors were deeply dissatisfied with the nature of their engagement with the process. These findings are consistent with many other case studies in decentralizing settings that conclude that, despite the rhetoric to the contrary, too much power is retained at the central level (Gilson et al., 2006).

6.1.4 Determinants of Malnutrition

Over a decade of profound change in Viet Nam, the relationships between the determinants and HAZ did differ in time. Furthermore, unlike in 1997, in 2006 some of the relationships depended on regional geography. Within a household, shifts in composition of the household were important in both years. Dependency ratio, the age-population ratio of those typically not in the labor force, was more important in 1997 than in 2006, while household size was more important in 2006 than in 1997. In 1997 head-of-

household education had a stronger association while in 2006 log total expenditure played a more important role. The relationships between HAZ and child's age and dependency ratio were modified by region in 2006. In 1997 results indicated there were no differences across regions in the way in which dependency ratio was related to HAZ, but in 2006 this no longer held true. The effect modification of the relationships of HAZ with dependency ratio and child's age in 2006 may be indicative of the growing disparities seen in Viet Nam.

6.2 Limitations

There were several limitations to this dissertation research. All data by necessity were collected in Vietnamese thus, exact wording and some of the richness of the responses may have been missed despite efforts which included recording and transcribing interviews and back translating materials.

Additionally, in some of the research conducted, the researcher's role as participating-observer and change-agent could have influenced responses from informants; they may have crafted a response to please the researcher. Also, the lead researcher's position as a foreign development worker may have influenced from whom data were collected and their interpretation. The researcher's position has been transparently discussed earlier in this dissertation. Additionally, efforts were made to include a diverse range of respondents, triangulate data sources, and have conclusions checked by key stakeholders.

This work sought to investigate the role of power in a variety of settings. Generating information that reveals the influence of power over policy implementation is not straightforward, even in relation to the common method of interviews. A mix of methods

was used to try to mitigate this limitation but power and influence remain difficult domains to capture and interpret.

Lastly, there were some limitations in the quantitative data. This research sought to examine the environments or systems at different levels of proximity to the child. The VLSS data sets were selected because they included micro, meso, exo, and macro level measures. The quality of the commune level data was poor, however, with many missing values and often based on the perceptions of commune leaders. The commune level data did not aid in explanation, and this might have in part been due to the data quality. While some of the data content included in the VLSS is standardized, the content can shift from round to round. The 1997 health module included a basic health and nutrition section while the health module in the 2006 round focused on HIV and disabilities. Data for some of the most proximate factors of malnutrition (e.g., feeding behaviors) were not available in both years, these data limitations may have altered the findings.

6.3 Implications

A critical examination of the sociopolitical dimension yielded information pertaining to underlying elements like the importance of power and how that played out among individuals and their relationships in the policy community. This dissertation documented that the sociopolitical dimensions may influence the success or failure of specific strategies and approaches both at national and provincial level. Advancement of nutrition policy in a relatively short amount of time is possible when key factors are favorable, thoughtful strategies are used, and the international community supports country leaders to frame its own agenda.

Additionally, this research demonstrated the effectiveness of the method of participating-observer and change-agent, a model that is becoming more common (Walt et al., 2008). The effectiveness of this model required employing a person who is skilled in working in the environment in which they hope to affect change. There is an emerging trend emanating from donors who are increasingly mandating researchers become directly involved in research translation, causing them to become policy actors (Walt et al., 2008).

Results from the provincial planning work highlighted the need for enhanced capabilities and authority and further capacity building of sub-national actors to be able to engage fully in the planning process. Expanding the “decision space” over such domains like setting objectives and financing requires human resource development both in terms of skills and knowledge, but also the ability to negotiate and manage (Grundy, Healy, V., Gorgolon, L., & Sandig, 2003). This, however, must be coupled with a more legitimate ceding of power from the center to the provinces so that actors are able to use their enhanced capabilities to translate the theoretical benefits of decentralization into reality.

This research has contributed to epidemiological understanding of the determinants of HAZ in Viet Nam; this understanding is critical to better inform policy and design programs. The research indicated that that targeted actions that address the key drivers of malnutrition need to be taken and are imperative in order to accelerate reductions in stunting. Aggregate measures of progress over the time mask differences across regions, our analysis revealed that there are regional differences an example being the relationship between child’s age and HAZ. Viet Nam is instructive to other similar settings of rapid development with increasingly important sub-national structures and actors. The results suggest that ten years ago universal action could have been taken to address chronic

malnutrition, but given the growing heterogeneity of the country, this may no longer be the case.

The emphasis of recent initiatives like SUN is focused on country level action. The research in this dissertation concludes that this action needs to be contextualized based on an understanding of the determinants especially in increasingly heterogeneous settings. The relative strength of association of determinants change over time, and differ depending on geography, with the sub-national level becoming increasingly important. Assessing the relevance of interventions, and increasingly packages of interventions, based on this understanding is needed both to proceed with the “what to do” and to inform the “how to do it.” This knowledge may become more important as malnutrition declines. For example, higher malnutrition levels may be easier to change with direct nutrition interventions, like the Lancet package, however, declines may be harder to achieve when prevalence of malnutrition is lower as other, more structural determinants (i.e. women’s status) may become increasingly important and may be potentially more difficult to change.

6.4 Future Research

Several issues should be prioritized for future research. There is a dearth of literature from developing countries that addresses the nutrition policy process at national or sub-national level. Rigorous prospective evaluation of transitions from agenda setting to program implementation should be conducted. Additional studies using the participant-observer, change-agent model are warranted to further develop an understanding of its utility in learning about and changing policy processes. Future research should also

investigate the role of power in planning processes which this work revealed plays an important role in policy making and decentralization. Further refinement of methodological approaches to measuring and analyzing information about power and influence is needed given the inherently political nature of policy processes.

This research explicitly examined a sub-national planning process for nutrition. More work should be done to better understand this process and the factors that influence it, given the growing importance of actions taken at sub-national level. Identification of effective strategies to enhance sub-national actors capabilities would be beneficial as most case studies on decentralization note lack of capacity as a limiting factor, however, little guidance is offered on how to address this gap. An adapted framework was used to organize the factors related to planning. This adapted framework should be applied in other planning settings to evaluate its utility and further refine the dimensions included in the framework.

More analytical work to identify the determinants of height-for-age over time and space should be undertaken in other countries. Data analyses should include the range of levels of potential determinants of malnutrition. More analyses including community level information and beyond should be completed to better understand the additional value of potential determinants beyond household level. Accomplishing reductions at national level are predicated on progress sub-nationally, for this reason community level variables were included in the analysis. Their inclusion, however, did not provide additive information to the household level. This may have been the case because there was no meaningful variation at community level or because the quality of the data were poor.

Due to lack of data many measures of the most proximate factors of malnutrition could not be included in the analyses. It would be useful to replicate the analyses using different data sets that do include these measures in an effort to place the dissertation findings into further context. With respect to Viet Nam, additional analyses may also aid in explaining why infants in some regions in Viet Nam were better off than their counterparts elsewhere in the country. Additional analyses would also add to the dialogue around how a greater understanding of determinants and how they change over time and space can inform policy and programs to enhance reductions in malnutrition. This analytical work will also aid in informing multisectoral responses so interventions with the most promise for high impact can be included. Findings from such analyses may help to address the gap in understanding successes and failures in nutrition programming that has been identified by others (Headey, 2011) which could be instructive efforts to reduce malnutrition. Currently, there are efforts underway to establish targets for stunting reduction both globally and at country level. Further analyses like those discussed would be useful in both understanding what factors drive reductions, what achievable goals might be based on those identified factors and the contextual nature of the factors.

6.5 Recommendations

The following recommendations are made based on the dissertation. Movements like SUN and The 1000 Days Partnership focus on some of the factors that are critical for scaling up nutrition successfully at the country level including developing or revising national nutrition plans and resultant programs (Bezanson & Isenman, 2010; REACH, 2011). Given the lack of literature around the agenda setting and translation to implementation in nutrition, whenever possible, prospective studies of these issues should

be built into initiatives. This inquiry should be prioritized by those under the SUN umbrella and other similar efforts.

Advocacy with central level officials should also be undertaken to highlight the key challenges at provincial level to effective nutrition planning. In the Viet Nam context, there are several imperatives controlled at central level around financing that, unless altered, will continue to undermine efforts to plan based on local realities. Additionally, capacities and capabilities of provincial level actors should be built to enable their full participation in the planning process.

This dissertation advocates for a more nuanced and thorough understanding of the determinants of malnutrition to inform action. The absence of current and credible data may be an impediment to this and will result in an inability to define and understand problems. The lack of evidence can also undermine efforts to garner attention and sustained funding. The health module in the 2006 VLSS focused on HIV and disabilities which at the time were donor priorities. The inclusion of HIV and disabilities was at the expense of much of the nutrition and child survival related information which was not included. Advocacy efforts to promote the inclusion of nutrition and related sections in large data collection endeavors like the Demographic and Health Surveys and the Living Standards Surveys should be undertaken with key government officials and donors. The existence of credible data coupled with effective messaging will, in turn, better situate nutrition to receive the sustained resources that are required to accelerate reductions in malnutrition.

6.6 Conclusions

This dissertation sought to provide understanding of the epidemiological and sociopolitical dimensions of malnutrition using Viet Nam as a case study. Findings from the analyses conducted in Chapters 3, 4, and 5 indicate that understanding both of these dimensions is critical to generate knowledge on how countries must engage with the issue of malnutrition. Given the renaissance that nutrition is enjoying as a development priority, it is imperative that this unprecedented level of attention and support translates into progress in addressing malnutrition in developing countries. It is hoped that the findings from this dissertation research can inform the global and county level actions that are required to effectively address malnutrition.

6.7 References

- Bernier, N., & Clavier, C. (2011). Public health policy research: Making the case for a political science approach. *Health Promotion International*, 26, 1090–1116.
- Bezanson, K., & Isenman, P. (2010). Scaling up nutrition: A framework for action. *Food and Nutrition Bulletin*, 31, 178–186.
- Gilson, L., Erasmus, E., Kamuzora, P., Mathews, V., Ngulube, T. J., & Scott, V. (2006). *Applying policy analysis in tackling health-equity related implementation gaps* (Equinet Discussion Paper 28). Cape Town/Johannesburg, South Africa: Health Economics Unit/Centre for Health Policy.
- Grundy, J., Healy, V., Gorgolon, L., & Sandig, E. (2003). Overview of devolution of health services in the Philippines. *Rural and Remote Health*, 3, Article 220.
- Headey, D. (2011). *Turning economic growth into nutrition-sensitive growth* (Conference Paper #6). Washington, DC: International Food Policy Research Institute.
- Lapping, K., Menon, P., Ngo, T., & Frongillo, E. (2007). *Viet Nam Country Report: The Mainstreaming Nutrition Initiative*. Hanoi, Viet Nam.
- Natalicchio, M., Garrett, J., Menno-Mulder, S., Ndegwa, S., & Voorbraack, D. (2009). *Carrots and sticks: The political economy of nutrition policy reforms* (HPN Discussion Paper). Washington, DC: World Bank.
- Oliver, T. (2006). The politics of public health policy. *Annual Review of Public Health*, 27, 195–233.
- Pelletier, D., Frongillo, E. A., Gervais, S., Hoey, L., Menon, P., Ngo, T., Ahmed, T. (2011). Nutrition agenda setting, policy formulation and implementation: Lessons from the Mainstreaming Nutrition Initiative. *Health Policy Plan*, 27, 19–31.
- REACH. (2011). *UN REACH progress report: Accelerating the scale up of food and nutrition actions. January 2010–June 2011*. Rome, Italy: World Food Programme.
- Sheikh, K., Gilson, L., Agyepong, I. A., Hanson, K., Ssenooba, F., & Bennett, S. (2011). Building the field of health policy and systems research: Framing the questions. *PLoS Med*, 8(8): e1001073. doi:10.1371/journal.pmed.1001073
- Shiffman, J. (2006). Donor funding priorities for communicable disease control in the developing world. *Health Policy and Planning*, 21, 411–420.
- UNICEF. (1990). *Strategy for improved nutrition of children and women in developing countries: A UNICEF policy review*/ New York, NY: United Nations.

Walt, G., Shiffman, J., Schneider, H., Murray, S. F., Brugha, R., & Gilson, L. (2008). "Doing" health policy analysis: Methodological and conceptual reflections and challenges. *Health Policy and Planning*, 23(5), pp. 308–317.

Working Group on Priority Setting. (2000). Priority setting for health research: Lessons from developing countries. *Health Policy and Planning*, 15, 130–136.

Appendices

Appendix 1: MNI In-Depth Interview Guide

For the Interviewee

1. Do you think nutrition is an issue in Viet Nam? Is it an issue that policy makers pay attention too?
2. Do you see a role for an organization/agency like yours in assisting with the nutrition issues currently facing Viet Nam?
3. What do you think of MNI conceptualization thus far (provincial level planning and down)?

For the Interviewer

1. How were you received by the participant (apprehensive, guarded, and friendly)?
Did the respondent's attitude towards you change during the interview (body language, emotion)?
2. Do you think the info given is reliable and accurate?
3. Describe how you were feeling and any impact you feel you had on the interview (i.e., inadvertently asked leading questions)?
4. Please note any other information that you think useful regarding the interview, respondent or setting.

Appendix 2: MNI In-Depth Interview End of Project Guide

Interview Guidelines

The Role of MNI and Other Key Interventions in Mainstreaming Nutrition

Over the past two years, MNI staff have adopted a variety of roles and approaches to assist the mainstreaming of nutrition in diverse country settings. As MNI draws lessons for future work at country and global levels, we need to analyze these experiences from our perspective. As outlined in the MNI paper on evaluating MNI's success, this is a complex task from the perspective of attributing changes to MNI's experiences. A series of key informant interviews would assist in completing each country "story" from two vantage points:

1. The key events and strategies that affected the promotion of a nutrition agenda, and
2. The influence that MNI, in particular, can plausibly claim in advancing these processes.

Our objective with these interviews is to deepen our understanding of the process involved in advancing nutrition agendas. In documenting MNI's specific role, our intention is not to make judgments on the extent to which MNI actors "succeeded" or "failed" to have an influence, but to understand *how* MNI strategies were received and acted upon—political, administrative, financial, technical or other factors that led country actors to incorporate or disregard MNI suggestions—and the nature and extent of changes in the policy process that resulted from MNI interventions.

Participants: Interviews should be conducted with MNI's major partners or other decision-making actors MNI attempted to assist and influence. In Bolivia, for instance, this group of key actors will involve only five participants.

Interviewers: A non-MNI staff member would be best for conducting these interviews, as they should elicit less biased responses about MNI influence.

Invitations: When actors are invited to participate, they should be told that the objective of the interview is to "understand their perspective of the major events and strategies that helped or constrained country actors in their efforts to advance a national nutrition agenda." No mention should be made of MNI's possible role until the end of the interview.

Protocol: The interview should take 30 minutes to 1 hour. Questions should be open-ended at first, followed up with specific probes about MNI interventions. These interventions will differ depending on the country, but could refer to specific workshops, initiatives or concepts MNI suggested, activities MNI led, etc. Questions should be similar to the following:

1. Reflecting over the past two years, please explain what you believe to be the major events and strategies that either greatly assisted or critically challenged attempts to advance a nutrition agenda or nutrition actions. Ask participants to explain *who* was doing *what*, *when*, and *how* the strategy affected the policy process for advancing nutrition. It might help to build a timeline on paper as the participant talks about: key events, key decisions, opportunities that arose, obstacles they confronted, and set backs they faced.

2. Do you recall the (suggestion/workshop/other activity)? What did you think about (suggestion, workshop, or other activity)? Did that idea/event have any kind of impact on the process of advancing nutrition? Why or why not? What were the major issues that made it possible/difficult to adopt? (These suggestions/workshops/activities/ideas/events to be discussed with them are ones that MNI had some role in initiating or implementing. We want to know about the influence of the suggestions/workshops/activities/ideas/events at this point, not whether they attribute that influence to MNI. This is far more important to know than the attribution to MNI. Probe about political, technical, administrative, financial or other factors).
3. **Did MNI suggestions or activities influence the process of advancing nutrition in any way?** Remind them of the suggestions/workshops/ideas/events that were discussed just before, and ask them about MNI's role.

How did your perspective change during this time? How did that bring them to modify actions that you were taking? How did having financial assets in their hand help them with their capacity?

What was initiated and why was it not taken up?

Appendix 3: Net Map National Interview Guide

Viet Nam Field Guide: National Interview

Preinterview

- Tape together 4 pieces of flip chart paper. Write the date and the question at the top.
- Write the names of the links in the corner of the flipchart page, using the color to correspond with links.

Overview of Research

- Give a brief description of A&T and the objectives of the policy Net-Map component.
- Give a brief overview of Net-Map and how the interview will go.
- Give a brief definition of what we mean by awareness and support.

The primary goal of the Alive and Thrive project is to improve child nutrition in Viet Nam. In order to reach this goal, we are undertaking this group interview to get an understanding of the policy landscape in Viet Nam related to child nutrition issues.

Through this exercise, with the input of all the expert around the table, we hope to learn: who plays a role in child nutrition policy and services and how are they connected, and barriers to and opportunities for increasing support for child nutrition.

Net-Map is an interview technique that examines the power, goals and perspectives of various stakeholders, and looks at how these stakeholders interact with each other. We will start by listing all the actors involved in child nutrition issues at the national level, determine how they are linked, examine how influential each actor is in the development

of the plan, and finally look at ways to improve the process. One thing about Net-Map is that we will look at how things are actually done and not only what is written in formal documents. This is why we need the insight of people like you, who are part of the process and know it from the inside.

Looking at our primary question for this exercise, we will first clarify what we mean by awareness and support. Appropriate Infant and Young Child Feeding (IYCF) is the provision of age-appropriate feeding throughout the first 24 months of a Child's life.² By *awareness*, we mean that people have an understanding of the importance of appropriate feeding in the first 24-months. By *support*, we mean those see IYCF as a priority among competing policy issues.

What is the current state of awareness of and support for IYCF among Viet Nam's national-level policy stakeholders?

This is the overall question we want to answer with this group interview.

Step 1: Determine Actors

Who plays a role in increasing awareness of and support for IYCF at the national level?

² This is critical for a child's development because children have different nutritional requirements at different stages. There are many different ways to provide proper nutrition to infants and young children; this initiative is not concerned with the means of providing nutrients, but only with ensuring that feeding is sufficiently nutritious and age appropriate.

- Prompt the interview partners by asking for actors within various categories (government, NGO, private, etc.). Each category of actors gets a different color sticky note.
 - o Governmental (Pink)
 - o International Organizations (Yellow)
 - o Private Sector (Orange)
 - o Mass Organizations (Green)
- Actors could include those supportive of *IYCF* and those unaware or supportive of competing priorities.
- Write on actor cards as they list them.
- Place actors on flipchart sheet, in no particular order.

Step 2: Drawing Links Between Actors

For the following links, who provides _____ to whom?

- **Formal supervision/command (black)**
- **Funding (red)**
- **Evidence/data (blue)**
- **Advice/Lobbying/Pressure (orange)**

Draw arrows between actors using a different color for each link. Draw one link at a time (e.g., finish all of *formal command* before starting on *funding*), but let them add links later if they remember something.

- Links should be ONLY when related to IYCF (e.g., who provides funding to whom for—or related to—IYCF issues and activities?).
- Formal supervision/command–formal oversight/reporting, the direction of links is from the person giving command to the person receiving it.
- Evidence/data, information based on research, monitoring, etc.
- Advice/lobbying/pressure, when an actor gives suggestions or pushes to promote a specific outcome without having the formal authority.
 - o This link could reflect many different types of activities. Be sure to record specific information about the link in the notes.
 - o Pressure is defined as providing suggestions when there might be repercussions for not following but not formal enforcement (e.g., “if you don’t put this in the plan, you might lose public support of my village”).
 - o When taking notes, look out for mentions of personal relationships (when an actor has a personal relationship that enables or supports “lobbying” activities).
- You can alter the terminology to make the interview partner comfortable. For instance, if they don’t like talking about “pressure,” but are comfortable with “advocacy,” that’s ok. Just define very clearly what the link means, but use the language they are comfortable with.

Step 4: Attribute Influence

How strongly can each actor influence awareness of and support for IYCF in Viet Nam?

- Define influence:
 - o Ask the interview partner “*what are different ways someone could influence awareness of and support for IYCF?*” Tell them other possible ways of influencing if they leave things out.
 - Ways of influencing include, but are not limited to: financial influence, formal influence, influence from being the holder/generator of information, and influence because one is respected.

- Attribute influence:
 - o First ask the influence level of each actor quickly, starting with the most influential actor(s).
 - o Then go back and ask them to explain each one. Ask the respondent to discuss “Where does their influence come from and how do they use it?” for each actor. In particular, get explanations about all actors that are very high, very low, or seem a bit inconsistent or unclear where their influence comes from.
 - For instance, “Actor *x* and *y* are the highest influence, where does their influence come from?” “Why is Actor *w* higher than Actor *z* if actor *w* doesn’t have many links?”

- DO NOT PROMPT THEM TO CHANGE THE INFLUENCE. JUST ASK QUESTIONS UNTIL YOU UNDERSTAND THEIR ANSWER OR THEY CHANGE IT.
- o Last, review the entire board, starting by stating the influence level of the actor with the highest level all the way down to the lowest.
- o The purpose of doing this in three stages is to allow the interview partner to reflect on his/her answers and possibly make changes upon noticing inconsistencies.
- THIS SECTION GENERATES RICH INFORMATION; BE SURE TO TAKE DETAILED NOTES HERE.

Step 4: What Is the *Position* of the Actors?

For each actor, determine their position on the issue of IYCF:

- **Most important priority / core cause (1)**
 - **Important priority among others (2)**
 - **Actor is interested in IYCF but it is not an important priority (3)**
 - **Actor is not interested in IYCF, neutral (4)**
 - **Actor supports competing priorities (5)**
- Define the 5 possible positions to the interview partners. This can be seen as a scale of interest from 1 (high) to 5 (low).

1. Most important priority / core cause (1)
 2. Important priority among others (2)
 3. Actor is interested in IYCF but it is not an important priority (3)
 4. Actor is not interested in IYCF, neutral (4)
 5. Actor supports competing priorities (5)
- Ask interview partners what the position of each actor is. Write the initial on the actor card. (Use pencil in case there is debate and people change their minds.)
 - THIS SECTION GENERATES RICH INFORMATION; BE SURE TO TAKE DETAILED NOTES HERE.

Step 6: Next Steps

Who are the key people that are not currently supportive of IYCF and related issues that we would want to be more supportive? What are major opportunities for promoting awareness of and support for IYCF? What are major stumbling blocks?

- This is an open discussion. At this point interview partners can add actors to the board who are not currently there but should be, and point out important links that are weak and nonexistent.

Appendix 4: Net Map Provincial Interview Guide

Viet Nam Field Guide: Provincial Interview

Preinterview

- Write the names of interviewers and interview partners on the top of a flipchart page. Also write the date and the overall question.
- Prepare actors cards with past respondents' actors written.
- Write the names of the links in the corner of the flipchart page, using the color to correspond with links.

Overview of Research

- Give a brief description of A&T and the objectives of the policy Net-Map component.
- Give a brief overview of Net-Map and how the interview will go.

The primary goal of the Alive and Thrive project is to improve child nutrition in Viet Nam. In order to reach this goal, we are supporting community-level health centers, engaging in policy dialogue, and measuring the results of these activities to see what is effective. We understand that the District Health and Nutrition Plans are an important aspect of Viet Nam's programming for child nutrition, and so in this interview we would like to explore that topic.

Net-Map is an interview technique that examines the power, goals and perspectives of various stakeholders, and looks at how these stakeholders interact with each other. Since you are an expert on your district's plan we would like to interview you in order to help

us understand who plays a role in developing the provincial plan. We will start by listing all the actors involved in the process last year, then determine how they are linked, then examine how influential each actor is in the development of the plan, and finally look at ways to improve the process. One thing about Net-Map is that we will look at how things are actually done and not only what is written in formal documents. This is why we need the insight of people like you, who are part of the process and know it from the inside.

“Who was involved in the process of developing *last year’s* Provincial Plan for Health and Nutrition?”

Step 1: Planning Process: Step by Step

“Can you please provide a brief explanation of the process of developing the plan and the budget?”

- Start with a large blank sheet of paper and write Step 1 on the top. Be sure to ask which actors are involved in each step. So, if they say “In step 3, I request input on the plan,” ask them to name ALL the actors they request input from in that step.
- As the primary facilitator is noting down the steps and prompting for actors, the cofacilitator is writing the actor names on cards, and noting by number the process step the actor is involved in.
- Place actor cards on flipchart sheet, in no particular order.

***Special note:** For the remainder of the interview, we are not asking questions about the specific steps of the planning process. However, all the answers should be related to the planning process since that is the topic of the Net-Map. For primary facilitator, be sure*

to ask clarifying questions that relate the map to the process steps (“When that actor gave you advice, was that in step 2, step 4 or both?”). For note-takers/cofacilitators, information that relates descriptions and links to steps are **CRITICAL**. Be sure to emphasize that in the notes.

Step 2: Generating Additional Actors

“Aside from the actors already mentioned, are there any others that play some role in the process that you have not mentioned?”

- If they cannot think of other actors, prompt them by asking if there are actors “informally” involved, separate from those involved in the formal process already listed.
- Add any actors mentioned at this time to the sheet. Ask if they play a role in a specific step(s) in the process; if so, write it on the actor card.

Step 3: Drawing Links Between Actors

“Now we will focus on *exchanges* or *flows* between the actors, in the context of the planning process. For the following links, who provides _____ to whom?”

- **Formal supervision/command (black)**
- **Funding (red)**
- **Evidence/data (blue)**
- **Advice/Lobbying/Pressure (orange)”**

Draw arrows between actors using a different color for each link. Draw one link at a time (e.g., finish all of *formal command* before starting on *funding*), but let them add links later if they remember something.

- Links should be ONLY when related to the development of the provincial plan (e.g., who provides funding to whom for—or related to—the provincial plan?).
- Formal supervision—formal oversight/reporting, the arrow goes from the actor giving the command to the actor being supervised.
- Evidence/data, information based on research, monitoring, etc. (technical information).
- Advice/lobbying/pressure, when an actor give suggestions to promote a specific outcome.
 - o This link reflects any instance where an actor tries to influence or change the outcome through an informal means. This can still be a legitimate³ means but there is no formal enforcement capacity. Be sure to record specific information about the link in the notes.
 - o Pressure is defined as providing suggestions when there might be repercussions for not following (e.g., “if you don’t do this, you might lose popular support”).
 - o When taking notes, look out for mentions of personal relationships (when an actor has a personal relationship that enables or supports “lobbying” activities).
- You can alter the terminology to make the interview partner comfortable. For instance, if they don’t like talking about “pressure” but are comfortable with

³ Informal does not mean illegitimate or illegal.

“advocacy,” that’s ok. Just define very clearly what the link means, but use the language they are comfortable with.

Step 4: Attribute Influence

“What is the influence level of each actor over the Provincial Plan?”

- Define influence:
 - o Ask the interview partner “*what are different ways someone could influence the development of the plan?*” Tell them additional ways of influencing if they leave things out.
 - Ways of influencing include, but are not limited to: financial influence, formal influence, influence from being the holder/generator of information, and influence because one is respected.
- Attribute influence:
 - o First ask the influence level of each actor quickly, starting with the most influential actor.
 - o Then go back and ask them to explain. Ask the respondent to discuss “Where does their influence come from and how do they use it?” for each actor. In particular, get explanations about all actors that are very high, very low, or seem a bit inconsistent or unclear as to where their influence comes from.
 - For instance, “Actor *x* and *y* are the highest influence, where does their influence come from?” “Why is Actor *w* higher than Actor *z* if actor *w* doesn’t have many links?”

- DO NOT PROMPT THEM TO CHANGE THE INFLUENCE. JUST ASK QUESTIONS UNTIL YOU UNDERSTAND THEIR ANSWER OR THEY CHANGE IT.
- o Last, review the entire board, starting by stating the influence level of the actor with the highest level all the way down to the lowest.
- o The purpose of doing this in three stages is to allow the interview partner to reflect on his/her answers and possibly make changes upon noticing inconsistencies.
- THIS SECTION ALWAYS GENERATES RICH INFORMATION; BE SURE TO TAKE DETAILED NOTES HERE.

Step 5: Improving Next Year's Plan

“For next year’s plan, in order to improve the process, what could the different actors involved do?”

- If they already pointed out problems or challenges in last year’s process for developing the plan, then refer back to those. If they have not, first ask if they did see any challenges or problems and note them. Even if they don’t see any problems or challenges, you can still ask if they can see ways to improve it.

Step 6: Increasing Evidence-Based Inputs

“If we want to increase input of evidence-based information into the plan and promote interactions with other sectors (for instance, agriculture, education), then what could be our strategies?”

- Explain that in preliminary research it was pointed out that better use of evidence-based information and more cross-sectoral collaboration would improve the Provincial Plans. They may agree or disagree with this; note it down. Either way, ask them how it would be possible to achieve this.
- Interviewee can add actors at this point. For instance, from other sectors or from research organizations that would have to be involved. (Be sure to note which ones were added at this stage.)
- Interviewee can also add links, drawn as a dotted line if the link is not there now but would have to be created to achieve this.