

Policy Implications from a Panama-McGill Collaboration: Results from the VERASAN Intervention in Rural Panama



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Project Overview

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Location: Panama City and Santiago, Panama

Mentors: Dr. Marilyn Scott (Parasitology) and Dr. Kristine Koski (Nutrition)

Fellowship Duration: 18 July to 9 August 2014, 19 February to 25 March 2015



About the McBurney Fellowship Program

Through McGill's Institute for Health and Social Policy, the McBurney Fellowship Program supports students in international service programs related to health and social policy in Latin America. McBurney Fellows serve abroad in organizations working to meet the basic needs of local populations. One key aspect of this fellowship is its mandate to make a significant contribution to improving the health and social conditions of poor and marginalized populations through the delivery of concrete and measurable interventions. Students and their mentors identify issues, make connections with local organizations, and develop a strategy for the fellowship. The views expressed in this document are the opinions of the fellow, and do not necessarily reflect the opinions of the IHSP.

Contents

Project Overview	1
Contents	1
Fellowship Rationale and Objectives.....	2
Objectives.....	2
Background/context.....	2
Activities	3
Successes and Challenges.....	5
Expected versus actual outcomes	5
Questions Raised	6
Training and Mentoring.....	6
Lessons Learned	7
Community Implications and Further Work.....	7
Program Evaluation	8

POLICY IMPLICATIONS FROM A PANAMA-MCGILL COLLABORATION: RESULTS FROM THE *VERASAN* INTERVENTION IN RURAL PANAMA

Fellowship Rationale and Objectives

My doctoral supervisors, Professors Marilyn Scott and Kristine Koski have a long-standing collaboration with the Nutrition Department of the Ministry of Health in Panama (MoH), focused on the interactions between nutrition and infection in vulnerable populations in Panama. It was through this collaboration that I was invited to conduct my doctoral research with the *VERASAN* program, an agriculture-based intervention coordinated by the MoH in extremely poor, subsistence farming communities in central Panama. This work was conducted from February to October of 2012. In my research, I explored the impacts of the *VERASAN* program on household agricultural practices and production, household food security and child diet, and child growth. At the same time, I examined how exposure of young children to these intensified agricultural practices increased infections with a group of environmentally-transmitted intestinal parasites, which are known to negatively affect child growth.

Objectives

My research has policy implications for *VERASAN* and other agricultural interventions for vulnerable communities. Therefore, my broad objective for this fellowship was to share the results from my research on the child health implications of the *VERASAN* intervention. My goals for the fellowship were:

- To share results and policy implications of my study of the *VERASAN* intervention with policy leaders,
- To share study results and get feedback from *VERASAN* intervention staff,
- To share study results with *VERASAN* participants, using participatory methods to stimulate discussion about infection risk for preschoolers, and ways to mitigate those risks.

Background/context

The *VERASAN* intervention operates in rural, subsistence farming communities that are known to be extremely poor. My research revealed that the majority of families in these communities were food insecure (92%), approximately half of preschool children (6 months to 5 years) had stunted growth, based on WHO growth standards, and over a third of preschool children were infected

July 18 to August 9, 2014; February 19 to March 25, 2015

with intestinal parasites. I also found the VERASAN intervention has been successful in increasing the intensification of agricultural practices and production, and that this has translated into better food security and diets. However, this has not resulted in improved child growth due to continued parasite infections. These types of infections, which diminish child growth, are more prevalent in unhygienic home conditions and increase with greater exposure of preschool children to agriculture.

Activities

Part 1: 18 July to 9 August 2014

During the first part of my fellowship, I focused on sharing the study results and their policy implications with collaborators in the national office of the Department of Nutrition of the MoH, policy leaders, and staff of the VERASAN intervention. My supervisors from McGill, Drs. Marilyn Scott and Kristine Koski, and another graduate student, Doris Gonzalez-Fernandez, were also present during most of this time.

We began by reestablishing a working relationship with collaborators in the Department of Nutrition. I presented my research findings and their policy implications in three meetings in Panama City, and one in Santiago de Veraguas, where my research was based. These meetings included the Panama Minister of Health, the National Director of Health Provision of the MoH, Regional Directors of the MoH, Ministry of Agricultural Development, and Ministry of Education, as well as staff of the Office for Rural Potable Water (which is part of the MoH), the Ministry of Social Development (which is responsible for a conditional cash transfer program that most of the study families were involved in), and nutritionists, agronomists, and support staff of the VERASAN intervention. An important outcome of these meetings was discussions about the need for a multi-sectoral approach to child health.

Prior to presenting the study results in Santiago I conducted a small written survey of VERASAN staff. The purpose of this survey was to gauge staff understanding of the challenges facing study communities around agriculture, food insecurity, child growth, and intestinal parasite infections. Interestingly, I found that there was a good understanding of, and appreciation for, a multi-sector approach amongst VERASAN staff, showing that they understood why they were working together, and appreciated the different areas of expertise brought by different members of the team. On the other hand, I found that there



July 18 to August 9, 2014; February 19 to March 25, 2015

was a weak understanding of how children get intestinal parasites, and why they are a particular problem for children (in fact, one respondent stated that parasites were “people who show less interest in participating in training,” referring to families that did not regularly attend weekly meetings of the VERASAN intervention). After getting this information, I incorporated a better explanation of intestinal parasites, their modes of transmission, and the consequences for child growth and development into my presentation to VERASAN staff.

Part 2: 19 February to 25 March 2015

During my second visit, I continued discussions with collaborators in the national office of the Department of Nutrition about the specific recommendations that came out of the study. I also discussed the results with coordinators of the VERASAN intervention in Santiago. In consultation with VERASAN staff, I prepared visual materials to aid in the presentation of study results to the participating communities, with an emphasis on risk factors for infections. I visited 10 of the 15 study communities, presenting to a total of 106 parents. Using the visual materials I had prepared, I presented the study results to them and led discussions about risk factors for intestinal infections in preschool children. I made a special effort to explain how children become infected with intestinal parasites, and how this is related to the hygienic condition of the home and agricultural field environment. I also used participatory methods to help women and men conceptualize how their daily activities and their children’s accompaniment in these activities may put them at risk for acquiring infections from the environment.



Successes and Challenges

Expected versus actual outcomes

Some of my expectations were exceeded. Most notably, during the trip in July-August 2014, I had expected to share my study results and their policy implications with collaborators in the national Department of Nutrition. However, after our first presentations, we were invited to present our work again, first to the Director of Health Provision, and later, to the Minister of Health for Panama. Coincidentally, our visit was shortly after the inauguration of a new national government, one which was generally understood to have a greater interest in health issues of the poorest citizens of Panama. At first, we were worried that this meant we would have less time with our collaborators in the Department of Nutrition, because they would be busy orienting their new bosses. However it turned out in our favour, as the new government officials were interested to meet with us and hear about what we had found; instead of being side-lined, we were invited to contribute to conversations already underway about health conditions in marginalized rural populations. In these meetings, we were able to bring the attention of policy leaders to the need for further multisector collaboration to address the multiple factors that affect child growth, and to open dialogue amongst policy makers and intervention staff about challenges that these marginalized communities continue to face, especially related to sanitation and hygiene.

On the other hand, at times I found it difficult to achieve the objects I had set out for myself, specifically in sharing the study results with study participants. During my fieldwork in 2012, I had very little difficulty in getting community participation in the study. I had strong support from coordinators of VERASAN, and they worked closely with me to organize the field work and promote it in the study communities. We worked closely with teachers in the local schools, who helped us to alert families to upcoming study days and encouraged families to participate. I also found the use of radio announcements very effective in reminding families of the days we would be visiting their communities to conduct the research. I was disappointed to find that these same tactics were not as effective during my visits in 2015. Families often reported to me that they had not heard my radio announcements. Sometimes, teachers were helpful in inviting families to participate, but other times, teachers assured me they would pass the information along but there was no participation when I arrived in the community. However, I was nonetheless able to present the information in many of the communities, sometimes at pre-arranged meetings, but other times during times when communities were gathered for other reasons, such as a meeting of parents to discuss issues of the local school, or when families had gathered and were waiting to meet with doctors on their regular bimonthly visits.



July 18 to August 9, 2014; February 19 to March 25, 2015

Questions Raised

My experience during my fellowship highlighted for me issues around program buy-in, participation, and the key role that relationships play in the success of a program such as *VERASAN*, and in my own research. For example, I was surprised by how challenging it was to motivate community members to attend and participate in meetings to discuss the results from the study because I had good participation during the field research in 2012, and I was under the impression community members were interested to hear the results from the study about their children. A number of variables may have contributed to the low participation in some communities. First, although many study participants remembered me, there were 2½ years between the end of my field study and the visits back to the study communities during this fellowship, which may have been long enough for some families to lose interest in the study. Second, in the previous 6-12 months there were changes in the coordination and field staff of the intervention that may have contributed to an erosion of the relationship between *VERASAN* staff and participants. This has happened in part because *VERASAN* is scheduled to come to an end in September of 2015, and these changes are part of the winding-down of the program. Finally, after several years in the *VERASAN* intervention (up to eight years for some communities), it appeared that some families and communities were experiencing “program fatigue,” and were no longer willing to spend time participating in *VERASAN* meetings.

Training and Mentoring

The long-standing collaboration between my supervisors at McGill, Drs. Scott and Koski, and the Nutrition Department of the MoH was very important for the success of my fellowship. Further, the participation of Drs. Scott and Koski during the meetings with the MoH in August 2014 brought credibility and authority to my message. I also felt well supported by colleagues in the MoH, in the national office and in the local office of *VERASAN* in Santiago. During the second trip of my fellowship I found that, because of our meetings the previous year and my email correspondence with them, they were prepared to receive me and help me with logistical details of my visits to the study communities. On the one hand, I had to be flexible and rearrange my plans to fit with their availability, but this meant that they were very willing to help me, through providing the transportation to the study communities and other support that made my community visits possible.



July 18 to August 9, 2014; February 19 to March 25, 2015

Lessons Learned

This fellowship was the first time I shared my research results with people in Panama, and I learned a lot about and got a lot of practice in targeting my message to different audiences with varying levels of expertise, from health professionals to parents with primary school-level education. For example, when meeting with the Minister of Health, I included key pieces of data and analysis to support my policy recommendations. In contrast, when meeting with family members, I used illustrations to explain basic information about the parasites of concern for children in their communities, and focused on hygiene practices that were protective against parasites and risk factors for infections, while emphasizing to parents the relevance of this information because it was collected in their communities.

This fellowship was also the first time I experimented with using participatory methods. As a number-loving quantitative researcher, I felt a lot of trepidation the first time I tried this, but the buy-in by participants was incredible, and very fun! I wanted to open discussion with study participants about some of the daily activities they undertake that could put their young children at risk for acquiring intestinal parasites, but I found that when I simply asked question during community meetings very few people felt comfortable sharing their thoughts. Instead, by having women and men work in groups to create daily activity diaries and note the participation of their young children in the different activities, it created a more natural entry into these conversations and got people talking.

Community Implications and Further Work

Through this fellowship I was able to share the results from my research with a variety of different end-users in Panama, and contribute to the conversation around the health of children in vulnerable rural populations, and the many dimensions involved in health in this context. I hope that my work and the discussions that have arisen from it will encourage a more multi-sectoral approach to child health in vulnerable populations in Panama in the future. Specifically related to the VERASAN intervention, I have shown through my work that VERASAN has led to improvements in food security and diets of households, and I hope that this will encourage the MoH to continue to use agricultural interventions for poverty alleviation and improving household food security in Panama. On the other hand, my results highlight the importance of considering infection in future agricultural interventions, and I hope that my recommendations regarding mitigation of infection risks for children will be incorporated into the design of future agricultural interventions. Finally, I hope that the presentations and activities I conducted in the study communities have empowered parents with information that will help them to create better home environments in which their children can grow and thrive.

In the coming months, I will continue to work with Panamanian collaborators in the Department of Nutrition to prepare five manuscripts for publication in peer-reviewed journals. It is my hope that previous presentations and written reports, and continuing attention to the research through manuscript preparation, will encourage my collaborators to translate the study results into policy action.

July 18 to August 9, 2014; February 19 to March 25, 2015

Program Evaluation

This fellowship was valuable because it allowed me to bring the results from my doctoral research back to end-users of this information in Panama. It gave me an opportunity to spend an extended period of time in Panama discussing and exploring the results and implications of the study with policy makers, practitioners and study participants in Panama. Without the support from this fellowship, I would have spent only 1-2 weeks in Panama, and would not have had the opportunity to bring the results back to the study communities.

My advice to future fellows is to be patient when communicating with local colleagues, and sensitive to cultural differences. This will help to minimize misunderstandings and increase the effectiveness of the collaboration. I also want to encourage future fellows to enjoy the experience – local colleagues recognize and appreciate interns' enthusiasm!

