I. Background: As a major in Public Health and Healthcare Policy, I am trained to consider logical, efficient and sustainable solutions to persistent health issues. In order to strengthen these skills and learn more about how these issues present themselves, last summer I interned with Health Protection and Environmental Sanitation (HEPENS), a locally run health and environmental promotion NGO in Cape Coast, the capital of Ghana’s Central Region. In particular, I spent most of my time working in two small villages, Kwamoano and Nyamebekyere, in which HEPENS operates women’s health groups and farming projects. Through this, I was made aware of not only the role of women in the sustenance of a family, but also the unique intersection in rural Ghana between agriculture, public health and community. Ghana’s society, particularly in these smaller villages, is very community-oriented. With this in mind, about three years ago HEPENS developed farming projects in each village. The women worked on the farms on shift schedules and would sell most of the harvest (while saving some for subsistence). The profits were divided among the women as supplemental income in addition to their own individual businesses, such as dressmaking, selling fabric, or beadwork. Additionally, HEPENS also endeavoured to provide health insurance for the women and their dependent children (at a cost of 30 GHS a year) through sponsorship and donation programs. While healthcare is physically accessible within 20-35 minutes of each village (and a small pharmacy within each village), this insurance made basic treatments such as malaria treatments, antibiotics for food and water borne illness financially accessible. Unfortunately, in recent years, unpredictable weather, precarious crop selections (particularly a shift in focus away from weather-resistant crops) and a lack of equipment has led to significant decrease in agricultural production on these farms. Also, the health insurance programme proved itself unsustainable, as within a year insurance is needed again, and replenishment of funds is entirely dependent on donations. Through witnessing these challenges as an intern, this project has been developed in conjunction with HEPENS as a way to not only reshape and revitalize these projects, but to also make them sustainable and symbiotic while promoting agricultural entrepreneurship, public health, and thereby peace.

II. Project Overview and Implementation: This project will revitalize community farms in Nyamebekyere and Kwamoano (~300 villagers in total) and establish a Community Health Fund (CHF), which will be distributed by trained Community Health representatives for use in the community to fund basic health services and treatments. The Project for Peace funding will provide start-up money for a CHF in each village and fund the purchase of diverse seedlings, irrigation equipment, and other farming equipment (cutlasses, large hoes, etc.) from local sellers. This equipment will be used to redevelop and expand the current farm projects, with the assistance of a Ghanaian agricultural officer, who has recently signed on to act as an agricultural advisor in the farming projects. The women—both in the women’s group and others in the village—will work on these farms in shifts and scheduled times, as they previously did, that allow them to adequately attend to their families and individual economic ventures. As the farms begin to generate harvest and sales for income, 12% of generated revenue (rationale for this figure explained in Section III) will be directly placed into the CHF, and villagers will be encouraged to place at least 2% of revenue generated as insurance for the farm (HEPENS funding will also provide a safety net as well). Nicholas Baidoo, Executive Director of HEPENS, as well as competent female representatives (selected by the women based on educational level, trustworthiness, etc.) in each village will manage the CHF and distribute funds to villagers (women, their husbands and children) in necessary health circumstances. This spending will be recorded, and HEPENS will serve as a supervisor to this project to ensure against fraud or misuse.

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<tr>
<th>Week</th>
<th>Farm &amp; CHF Development</th>
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<tr>
<td>Prep</td>
<td>Formalize obtaining of additional land from village chiefs. Note that land provided by chiefs are available for use for an indefinite period of time. Development of CHF Funding Scheme (See III).</td>
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<td>1</td>
<td>Meet with chief of each village and the women’s groups for Health Insurance Awareness Programme, developed with the assistance of Dr. Steve Thompson, UR professor. This will discuss the importance of health insurance to a society. Villagers select 2 CHF representatives per village through a vote. Translation of CHF Training Programme materials into Twi. Begin purchasing seedlings and equipment (see budget for specific information).</td>
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<td>2</td>
<td>CHF Training Programme for CHF reps for proper management and allocation of CHF funds (training materials will be designed and organized by myself, with the assistance of Dr. Steve Thompson, UR professor). HEPENS and CHF reps arrange monthly meeting days/times (likely during HEPENS weekly village visits) to discuss the state of funds and spending throughout the month. Clear and prepare additional land. Begin distribution of materials to villages in order to begin planting.</td>
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<td>3</td>
<td>Opening of CHF accounts for each village at Kakum Rural Bank. Access to bank account established for HEPENS and village representatives. Signing of contracts denoting agreement to be CHF representative of village and handle money honestly and diligently, while keeping proper account of what has been spent. Continuation of farm work, under supervision and guidance of HEPENS Agricultural officer.</td>
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Short-term Goals:
• Provide tools, seedlings, and equipment necessary to redevelop and increase production in the community farm projects
• Establishment of a Community Health Fund (CHF) for each village.
• Promotion of female empowerment through revitalization of the women’s farm project through focus on naturally drought-resistant crops, while allowing them to aid in providing health care funds for their families.

Long-term Goals:
• Reserve 12% of income generated from the farm for an established CHF that is then used to fund healthcare needs in sustainable manner.
• Development of a sustainable farm in each village, one capable of generating enough to provide food stores for the villages and the supplementary income needed to purchase health insurance yearly.

III. Challenges, Solutions, and Achieving Sustainability

Prevention of moral hazard/mishandling: Research on community health funds in Rwanda showed that CHF access had a potential of increasing healthcare utilizations by 15%. However, it is important to ensure that this healthcare utilization is effectively distributed. In response to this, the CHF Training Programme will be developed with the assistance and guidance of UR Healthcare Administration and Management professor, Dr. Steve Thompson, detailing the proper ways and schemes to manage health fund pools efficiently and sustainably. These training materials will be provided to community health representatives and to HEPENS staff as well.

Determining an appropriate % to allocate to CHF: While researching other African community health insurance schemes, we noted studies indicate that in many cases the premiums were too high for the very poor. However, this project provides a manner of supporting the CHF as opposed to directly demanding out-of-pocket premium payments from villagers. In choosing 12% allocation, it is based on the knowledge that reputable health systems are funded on about 9.6% of GDP. Noting that this farm does not encompass the full income of the village, it is necessary to increase the percentage slightly to compensate for this, in order to gauge an appropriate amount to allocate to CHFs.

Village cooperation & trust: HEPENS (as well as myself) has an established relationship with these villages through their weekly outreaches and initiatives. As a result, they have not only gained the trust of the villagers, but also have an idea of the village dynamic. This project and plan has been communicated to authorities and women in both villages and we have gained their attached support. This provides greater sustainability through an already formed and solidified relationship and the added support system that HEPENS provides.

Preventing farm failure: In recent years, unpredictable weather patterns have lead to decreased output in many farms across Ghana. Staple roots and tubers food crops (cassava, yams, etc.), are increasingly being neglected for focus by farmers, despite being plants most resistant to drought and extreme weather conditions. On the advice of the HEPENS agricultural officer, this project will provide these tubers and roots for planting, not only strengthening the farm against future failure, but also placing the villages at an advantage by providing a reducing staple and a market advantage.

Reserves for CHF: Realistically, all business ventures have years where revenue is less than others. Thus, it is necessary to ensure back-up plans so that the CHF remains adequately funded, even in case of low revenue yields. Possible solutions to be considered are the increase of % revenue allocated to the CHF, or the installment of a minute yearly fee (for example, 2-5 GHS per family over the course of a year) at the discretion of village chiefs and HEPENS supervisors.

IV. Long-term Impact: Access to basic healthcare is an essential provision for peace and human life, thus is the aim of this project to not only begin a CHF and a method of funding it (through the farm work), but to also encourage villagers to find added ways of maintaining and funding their CHF. The impact of this project is dual-fold—a sustainable farm will be developed, while access to basic medications to treat common illnesses will be made readily affordable to villagers through the establishment of the CHFs. HEPENS will continue to work with the farming and health fund project even after my departure, but the hope is that within a few years, the villagers will become fully independent of their supervision, successfully managing their CHF in a sustainable manner.

V. Additional Information: I am a current senior at the University of Richmond, with an Interdisciplinary Studies major in Healthcare Policy & Public Health. Nurse Nicholas Baidoo started HEPENS in 2008, and for the past 4 years it has been in the forefront of public and environmental health promotion in Ghana’s Central Region. Through working with HEPENS, I have never seen a more determined group of women, capable with their hands, and as focused in their pursuits, as the women in Kwamoano and Nyamebekyere. This project, to me, is a way of further supporting the advancement of these villages by not only providing the tools to develop sustainable farms and community-generated income, but also addressing the health provision needs that are present in these villages.

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2 Shimeles, A. (2010).