

Proyecto Puentes de Salud: Connecting Immigration and Chronic Disease Risk

Proyecto Puentes de Salud is a chronic disease research and service project of UNC—Chapel Hill School of Medicine, Duke University, and Catholic parishes of St. Thomas More (Chapel Hill) and Santa Cruz (Juventino Rosas, Guanajuato, Mexico). The project offered health screenings among immigrant populations in North Carolina and in their home communities near Juventino Rosas, Mexico, as well as informative health “chats.” In 2008, the project found 86.8% of the population of rural Juventino Rosas was overweight or obese, 66.5% possessed high blood pressure, 13.2% had high cholesterol, and 65% exhibited clinically significant depressive symptoms. Data analysis is ongoing.

Research, goals, and lessons learned

I worked with *Proyecto Puentes de Salud* [Project Health Bridges] for three weeks this summer as a continuation of my work from summer 2007 and from North Carolina health fairs during the academic year. The service goals of *Proyecto Puentes de Salud* in Juventino Rosas, Mexico are largely determined by an independent, local committee with members from Santa Cruz Parish and the municipal government of Juventino Rosas that has existed since the project began in 2006. With advice from health care providers, the committee made it clear that identifying chronic disease (diabetes, cardiovascular disease, and depression) continues to be a top concern in the rural communities near Juventino Rosas. Our research goals were intimately tied to our service goals. For each consenting project participant, a survey was administered to connect potential contributors to chronic disease risk (diet, exercise, hereditary disease risk, and sleep), the number of other family members and friends in the United States, and whether or how much money they may receive in remittances. Each participant was also administered a 9-point depression scale (PHQ-9) and asked to identify where they stand on a 10-rung ladder representing subjective social status. All research methods were approved by the UNC—Chapel Hill IRB. The project worked in 15 communities during 2008 out of over 68 in the Juventino Rosas municipality (We visited 10 of the communities while I was in the area). The project aims to reach all rural communities in the municipality over the coming years.

We hypothesize that increased contact with United States culture from emigration has made certain unhealthy behaviors and items (such as junk food) more accessible to rural residents. At the same time, the efflux of young, able-bodied men from the communities may have significantly increased the agricultural duties of those women, children, and elderly persons who remain behind, causing stress and reducing time available for maintaining personal wellness. We suspect that those receiving remittances or who have many family members in the United States may perceive themselves to be in a lower social class, such that emigration is seen as the only option for social mobility and improvement of quality of life. The subjective social status question will help to resolve this question, while showing the extent to which subjective social status may predict other behaviors that lead to chronic disease risk.

Data were entered into a secured Access database and analysis is ongoing. We are preparing manuscripts based on current and prior data.

Each participant that completed all or part of the survey or tests was individually counseled on his or her disease risk, and high-risk participants (meeting pre-determined criteria) were counseled by a physician preceptor and referred to a local primary care provider for a free follow-up appointment. Unfortunately, we have no way of monitoring how many referred patients actually saw a health care provider, since some may have visited our local sponsoring physician, while others may have visited the local public hospital or another regional health center.

We provided health “chats” during evenings on the relationship between diet, exercise, cholesterol levels, blood pressure, and chronic disease risk. In 2007, I led many of these chats and developed interactive demonstrations. In 2008, I developed a workshop on basic first aid for children in order to productively occupy children while their parents and relatives attended the chronic disease presentations. Approximately twenty adults and ten children participated in the health chats in each community (range: five to fifty)

Overall, I am very proud and satisfied to have collaborated with committed colleagues at UNC and in Mexico on this project. Our research data has continued to improve in quality from previous years (through more effectively worded questions and health fair flow), without sacrificing ethical conduct or creating an undue burden on participants. Although I cannot here report our final statistical results, I will update the Duke Global Health Certificate program when we have manuscripts prepared. Most importantly, we reached over 520 people with critical health information through group health presentations and individualized testing, integrating with the outreach efforts of local physicians and health authorities. We are bringing to light the health challenges of a population frequently overlooked in popular thought and health analyses.

Additional Information

Though much work remains to be done, we have accomplished the goals set out for *Proyecto Puentes de Salud* in 2008. We have reached 15 communities and over 520 people in our target population with information on the diseases most likely to contribute to morbidity and mortality, and we have collected important research data potentially linking the impacts of emigration, behavior, and health.

The biggest difficulties this year, unlike last year, proved to be difficulties in coordination. Last year, the project was limited by the number of personnel. This year, with plenty of students and physicians, we had to work hard to ensure that each person was able to accomplish his or her goals. The local community delegation wished to spend time with us, students studying depression needed to form focus groups effectively, enough research data had to be collected without overly burdening project participants or shortchanging their test result interpretation and feedback, physicians had to balance their own work and time with their families. There was also a concern that the most prominent leaders in the community (who may have wished to associate themselves with the prestige of foreign researchers) had a disproportionate voice in the project, while other friends of the project from the city felt left out. In the long term, a microfinance project is being planned to help remedy some of the

economic contributors to health challenges in the region, but the addition of public health researchers, economists, sociologists, and others to the project will indeed be a formidable challenge.

Another major obstacle was time management. Of course, part of the difficulty is a local culture where promptness is relative and “*mañana*” and “*luego*” (“tomorrow” and “later”) are common responses. In 2007, we recognized the need for effective student and physician time management. This year, I printed a Google calendar and marked each engagement on it; another student prepared a wall calendar as well. These simple measures significantly improved our promptness and time management, although coordinating across so many individuals’ schedules remains a test in itself.

Proyecto Puentes de Salud is a great project for a persistent, dedicated and energetic student. Ideally, students interested in working with *Proyecto Puentes de Salud* should be confident Spanish speakers, have some experience with health fair work, blood pressure checking, and finger pricks, and church- or community-based projects. Respect for local cultural and religious practices is, of course, a must. The virtues of the project are that connections with the rural communities are already established; keeping in contact and coordinating schedules with busy UNC-based organizers are potential difficulties. Because local physicians have already agreed to provide follow-up to high-risk patients, the project can safely and successfully operate just a few weeks a year and still accomplish its goals sustainably. I am sure that the Duke-UNC collaboration on this project will endure as students and faculty on both campuses recognize its rewards and potential for all involved.

The research and service aims of *Proyecto Puentes de Salud* will continue for the foreseeable future, as the project works to reach all target communities in the Juventino Rosas municipality. Efforts to include a greater environmental component, integrate GIS mapping, and to develop a microfinance program for marginalized women (whose husbands may have left them to go to the United States) are all important future directions that would require substantial work. Due to the large interest in the project among UNC medical students, there will likely be room for only 1-2 Duke undergraduate or graduate students in upcoming years. It is important to speak with Dr. Philip Sloane at UNC or Dr. Sandy Clark at Piedmont Health to clarify which spaces may be available. I would be more than happy to discuss the project with students who are planning to participate in future years. It is critical that those students speak with past project participants to understand how the project is run. I am sure that I will return to Juventino Rosas at some point in the future to nurture the warm friendships I formed with the people there.

In addition to its important lessons in project management skills, *Proyecto Puentes de Salud* has convinced me of the importance of community-based projects for reaching those not already integrated into the healthcare system. I am sure that my future clinical practice will incorporate significant community outreach. It has also underscored the importance of working through systems that people trust (such as the local church). In the long term, I will likely apply many of the models deployed in *Proyecto Puentes de Salud* in another American or Latin American context.