

Population Health Projects 2007-08

About the Population Health Project

As a requirement of the Practice of Medicine course, first-year medical students work on population health projects in partnership with community groups. The projects link closely with the population health curriculum, through which students learn the fundamentals of population health including determinants of health, health disparities, and the roles of physicians in advocacy.

Objectives

The objectives of the Population Health Projects are to equip all medical students to:

- 1) Explain principles for effective collaboration with communities to address the social and economic determinants of health
- 2) Summarize the epidemiological background and policy issues around a population health issue impacting the local community
- 3) Collaboratively develop measurable objectives for a population health project
- 4) Apply new skills in program planning, media advocacy and/or health education in order to address a population health challenge impacting the local community
- 5) Identify and apply appropriate dissemination strategies for sharing project results with the community and with other key stakeholders

Project Identification

Community partners, working with the Office of Community Health, have developed projects that both address community needs and will provide students with an opportunity to build a specific skill. Students are matched to project groups based on ranking of interest. All projects meet the following criteria:

- Projects address a local population health concern
- Projects strive to reduce or mitigate health inequities or address determinants of health.
- Projects are part of broader, multi-year or multi-phase initiatives of the community partner

Project Structure

- Students work in groups of 4-6, dedicating 2-4 hours per week over a 6 month time frame.
- Projects fit into one of the following **Topic Areas**:
Access to Care, Environmental Health, Injury/Violence, Mental Health, Overweight/Obesity, Tobacco Use/Substance Abuse, Sexual Health
- Projects cover a specific **Skill Area**
 - **Program Development/Implementation:** Students will learn the steps of effective program development and implementation to address a health disparity or determinant in a population.
 - **Health Education:** Students will learn the principles of effective health education for diverse audiences
 - **Policy Advocacy:** Students will learn to strategically apply one policy advocacy skill to a population health issue

Sample Poster Abstracts of Completed Projects

ESTABLISHING MEDICAL PRIORITIES IN SANTA CLARA COUNTY

Community Partner: Community Health Partnership, Lourie Campos, MPA

Students: Jason Bartos, Lauren Chan, Elsie Gyang, Li Li, Meera Sridhar, Diane Tseng, Wenshuai Wan

In Santa Clara County, four of the five leading causes of death—heart disease, cerebrovascular disease, chronic lower respiratory disease, and influenza/pneumonia— have a greater impact in regions with higher poverty rates. To offset the \$240 million in debt, Santa Clara Valley Medical Center, Mental Health facilities, the Public Health Department, Alcohol and Drug Services, Community Outreach Services, and Custody Health Services comprise 45% of the budget reductions.

In collaboration with Community Health Partnership (CHP), we aim to understand how budget reductions will impact health services within Santa Clara County and to assess which medical services should be protected to meet the basic health needs of the county's most vulnerable citizens. To accomplish this, our group interviewed various leaders in the community representing the perspectives of the government, public health, and mental health.

Currently, budget reductions target non-revenue generating public health programs and stand-alone services (which do not rely on other existing programs). However, this decision-making lacks perspective on medical consequences for the community's health.

Mental and public health services will suffer a disproportionately large fraction of the budget reduction. Other departments, like Community Outreach, will lose 76% of current funding. Reductions in mental health services will directly result in loss of services for more than 6,000 adults/older adults. The total \$34 million budget reduction for mental health services is predicted to impact homelessness, unemployment, and crime within the community. Decreases in public health spending will eliminate Well-Baby visits, reduce immunization and communicable disease services, and result in the worst public health nurse per resident ratio in California.

The balance of essential primary care services and long-term health outcomes (and spending) requires a paradigm shift to the *a priori* establishment of medical priorities. Critical services, such as mental health, health screening, and immunizations for vulnerable citizens, must be protected.

THE EMOTIONAL WELL-BEING OF AND SOCIAL RESOURCES AVAILABLE TO TEENAGERS IN THE TONGAN COMMUNITY

Community Partner: San Mateo County Health Department, Edith Cabuslay

Students: Teresa Fu, Eleanor Marshall, Bennett Clark, James Torchia

In March of 2007 a young Tongan girl from Menlo-Atherton High School took her own life. In the wake of this tragedy, leaders of the Tongan community and the San Mateo County health department felt it was important to assess the emotional well being of and social resources available to teenagers in the Tongan community. The Public Health Office, a division of the San Mateo County health department coordinated focus groups involving adults and teenagers. Questions were posed to all groups relating to career goals, social behaviors, and the strengths and weaknesses of the Tongan community and society at large.

At the conclusion of focus groups the transcripts were analyzed and several recurring themes common to all groups were identified. Many of these issues stem from fundamental difference between immigrant parents and their children growing up in modern America. It seems as if adults and children have difficulty understanding one another's perspective on a variety of issues including: what constitutes success, availability of resources geared toward helping teenagers cope with stressors encountered in life, and the family dynamic. We believe that some of these issues can begin to be addressed by developing educational programs on cross-cultural literacy at community sites such as local churches or community centers.

This project has illuminated many of the challenges faced by Tongans in San Mateo County, as well as the difficulties inherent in collecting and analyzing subjective data.

STRENGTHENING THE HEALTHCARE INFORMATION TECHNOLOGY (HIT) SAFETY NET FOR COMMUNITY HEALTH CLINICS

Community Partner: MayView Community Health Center, Janet Hughes

Students: Mark Hammer, Luke Higgins, Matthew Mori, Daniel Shen, Maneesh Singh, Rangunath Vijaykumar

While information technology has revolutionized the way human beings interact with the world, its presence within the healthcare space has been slow to spread, especially within community health clinics. Healthcare information technology (HIT) provides both providers and patients with many benefits, such as an improvement in the quality of care through clinical monitoring based on large-scale screening and aggregation of data, and increased delivery of care based on guidelines of preventative health.

Through the assistance of the Community Health Partnership of Santa Clara County, our team partnered with the MayView Community Clinic (MVCC) to strengthen their HIT safety net. The MVCC has implemented the Chronic Disease Electronic Management System (CDEMS), which tracks relevant medical information in patients with chronic diseases, such as diabetes and hypertension.

Working with the MVCC, we developed three objectives: assess their current EHS status, modify their existing EHS to the clinic's specifications, and develop a novel instructional video explaining how to use the EHS to the physicians at the clinic.

After carefully analyzing the software system to rigorous programming methodologies, our team developed the following additional software components for CDEMS: allowing providers to directly input patient information into the CDEMS report view, and extracting the Date of Birth (DOB) and Sex of patients from the billing software and importing this information into CDEMS. We also developed an instructional video that explains how to use CDEMS to providers.

HIT still remains severely underutilized in community clinics. The next step in this project is to set up meetings with the physicians that participate at the MVCC, receive their feedback regarding the technical changes to CDEMS and the instructional videos, and incorporate those changes into our software components and video until no further changes are needed. These components can then be published for other community clinics to use.

ENVIRONMENTAL JUSTICE IN AN EAST PALO ALTO SCHOOL GARDEN

Community Partner: Collective Roots Garden Project, Tori Derr, PhD

Students: Kristen Whitaker, Nina Patel, Jen Hong, Elizabeth Goldsmith

The East Palo Alto community suffers disproportionately from asthma, obesity and cancer, falls far behind the rest of the country in meeting Healthy People 2010 standards, and has historically suffered environmental distress. At the East Palo Alto Charter School, 87% of students qualify for the free and reduced price lunch program; the city has no supermarket selling fresh produce.

The non-profit Collective Roots Garden Project (CRGP) maintains a school garden at the EPA Charter School. Students manage the garden, prepare meals from its plants, and follow a related curriculum. Recovering from a July 2006 toxin release in the area, CRGP wants more information about plant toxin uptake and agriculture in polluted areas, as well as about the documented impact of organic nutrition on human health.

We have compiled research on the impact of organic foods on health and nutrition, and on soil toxicology and testing, to help CRGP with its grant applications, garden management, and curriculum design.

Our research paper summarizing current literature on the relationship between consumption of organic produce and health adds scientific credibility to CRGP's value in the community. Our other research paper with annotated bibliography, summarizing research and local expert opinion on soil testing protocols and analysis—as well as our soil testing manual—supports CRGP's efforts to protect their garden from future environmental pollutants. We are meeting with CRGP's education advisors to incorporate this material into the school curriculum.

As future health professionals, we were able to serve as a bridge between the community and the body of scientific evidence about organics and environmental determinants of health, such as soil toxicity and urban pollution. Once the modules are finalized, we hope to help incorporate them into the school's curriculum. Ultimately, we hope to aid CRGP in establishing a replicable and sustainable model of an organic school garden in an urban setting.