September 3, 2014

Karen Duderstadt, RN, PhD
Chair, Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Chair Duderstadt and Council Members:

As the Executive Director of Global Health Sciences (GHS), I write to pledge my unequivocal support for our proposed PhD program. Building on our ten years of success in global health research, education and training, collaboration with international partners, and ability to attract generous donor support, we wish to further establish UCSF as an international leader in global health by offering a doctoral program in global health sciences.

In the past ten years, GHS has developed and implemented several cross-campus educational and training programs that include the first in the nation Masters degree program, now with 168 alumni; the Clinical Scholars Program, which has trained 201 UCSF postdocs, residents, and advanced graduate students; the School of Medicine Pathways to Discovery in Global Health that has provided training for 82 medical students; and, the new MD with Distinction in Global Health.

Regarding research support, GHS received a total of $44.75 million in 2013 (80% of this from sponsored projects). As Co-Principal Investigator of the recently awarded Pre-Term Birth grant ($100 million over 10 years) and the FIRST grant ($6 million over 2 years), we look forward to appointing doctoral students as graduate student researchers on these projects, as well as others within the robust research enterprise of GHS.

Likewise, we have been successful in attracting donor and gifts to support our programs. Generous contributions have made it possible for GHS to occupy the new Mission Hall building in October 2014 that will provide state of the art classrooms and desperately needed faculty offices and research space for the campus.

We understand that the on-going success of a doctoral program is dependent upon the ability of the program and the faculty members to support the academic and research enterprise, as well as the financial support needed for graduate students. Our GHS faculty and I commit to providing this support through teaching, advising, mentoring, serving as active members of the Graduate Group, and appointing students as graduate researchers and teaching assistants. I also commit to placing GHS education endeavors at the top of our development priorities and to providing the necessary leadership to establish and raise funds for graduate student
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fellowships. My initial commitment of $100,000-$200,000 will provide the necessary foundation to launch the program.

Additionally, we will be actively involved in the career development of our doctoral students and have established a track record for employment of the GHS masters graduates through a variety of mechanisms. For example, every year I appoint a recent graduate to a year-long funded position in GHS; this year the graduate chosen will serve as a GHS Program Planning and Research Fellow. We anticipate that similar opportunities will be made available to the doctoral graduates.

Thank you for your consideration of our proposal for a PhD degree, which has been a goal of UCSF GHS strategic plan since its inception. I am available if you need further information or have questions.

Yours sincerely,

Jaime Sepulveda, MD, MPH, DrSc
Executive Director
PROPOSAL FOR A PROGRAM OF GRADUATE STUDIES IN GLOBAL HEALTH SCIENCES LEADING TO THE PHD DEGREE

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
GLOBAL HEALTH SCIENCES (GHS)

September 24, 2014

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SECTION 1. INTRODUCTION

1.1 Aims and Objectives

UCSF Global Health Sciences (GHS) is dedicated to improving health and reducing the burden of disease in the world’s most vulnerable populations. GHS integrates UCSF’s expertise in the health, social, population and biological sciences, and focuses that expertise on pressing issues in global health. Founded in 2003 by former Dean of the School of Medicine and UCSF Chancellor, Haile Debas, GHS is composed of an innovative team of educators, researchers, and healthcare professionals working in California and around the world to train global health leaders and build sustainable solutions to improve health and eliminate disease.¹

Building on the strength of its MS degree in Global Health Sciences, UCSF seeks to establish the first University of California PhD degree in Global Health Sciences. The goal of the program is to prepare doctoral level graduates competent to apply research methods to explore and solve global health problems within academia and bilateral, multilateral, and non-governmental organizations.

As the Institute of Medicine observes, “Health knows no borders… global health is aimed at advancing the health of populations worldwide. It includes, among other subjects, disease and disability in developing countries, existing and emergent threats to international health, and U.S. international health policy.” Global health focuses on transdisciplinary approaches² to understanding and addressing health inequities wherever they occur. While many/most students will consider health problems occurring in low- and middle-income countries, the setting is not an element of the definition of the field. The science and substantive knowledge base of global health is growing, and our proposed rigorous and scholarly doctoral program will accelerate the development of the field.

Our specific aims and objectives are:

1. To establish a premier PhD program that will guide and contribute to the science and knowledge base of the emerging discipline of global health.
2. To leverage the expertise of GHS faculty and faculty from the four UCSF health science schools and the Graduate Division involved in global health research and education.
3. To provide a preeminent program for health sciences professionals to gain the research skills and knowledge base for careers in global health.
4. To develop a PhD program with four concentrations representing areas in which UCSF Global Health Sciences has major strengths and active research programs. Each concentration is a combination of coursework and research training:
   a. Clinical concentration – focus areas include non-communicable/ neglected/ tropical/ infectious diseases and maternal/child health.

¹ In this proposal the term global health connotes the field, whereas the term global health sciences refers to our MS and PhD programs, and our proposed School.
² The concept of transdisciplinary science is discussed later in this document, but a useful definition is, “transdisciplinary research aims to integrate knowledge from various scientific and societal bodies of knowledge” such that it will yield qualitatively different results than interdisciplinary research (Popa F, et al., A pragmatist approach to transdisciplinarity in sustainability research: From complex systems theory to reflexive science. Futures (2014), dx.doi.org/10.1016/j.futures.2014.02.002).
b. Policy concentration – public health policy in a globalized world.
c. Health systems concentration – workforce capacity and health systems strengthening.
d. Social and behavioral science concentration – examples include theories related to and derived from health economics, law, medical anthropology, and medical sociology:

This unique program of study will allow graduates to make significant contributions to the multidisciplinary field of global health, expand UCSF training opportunities, and complement, but not compete with, existing highly ranked UCSF doctoral programs.

1.2 Historical Development of the Field

In a frequently cited *Lancet* article from 2009, members of the Consortium of Universities for Global Health reflected on the origins of global health and developed a definition (Koplan, Bond, Merson et al, 2009). Pointing out that the foundations of global health are in public and international health, they also recognize the earlier influence of hygiene and tropical medicine. Public health has a long and respected history, having emerged in its modern form in the mid-nineteenth century in the US, England, and Europe. Key to public health has been its emphasis on: 1) decision-making based on vital statistics, surveillance and outbreak data, and laboratory science; 2) focus on populations rather than individuals; 3) goal of social justice; 4) emphasis on prevention rather than curative care (Farr, Chadwick, Virchow et al, as cited in *The Lancet* 2009). International health has largely concentrated on health work abroad, especially in lower- and middle-income countries, where it has been focused on infectious and tropical diseases, water and sanitation, malnutrition, and maternal and child health; global health displays its relationship to international health in its concern with the same issues. Similarly, public, international, and global health share many of the same characteristics, principles, research methods, and interdisciplinary approaches.

In both the social and natural sciences, philosophical shifts have played an important role in the ascendance and decline of fields, that is, their historical development. For example, environmental science is an academic field that came into existence in the 1960’s, not as a result of any particular methodological innovation or scientific advance but spurred by Rachel Carson’s *The Silent Spring*. In the same way, a recent shift in philosophy and attitudes in the global health community has resulted in a definition of global health that underlies the basis of our proposed program:

*Global health is an area for study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary [transdisciplinary] collaboration; and is a synthesis of population-based prevention with individual-level clinical care.* (Koplan, J P, Bond, T C, Merson, M H, et al. (2009).

The recognition that we live in a globalized world in which we have an interest in the health of others—because everyone’s health affects our health, our security, and our moral standing—is motivating the development of the field of global health.

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The field of global health is transdisciplinary and considers health from perspectives ranging
from biological to environmental to cultural, and health improvement approaches from personal
to political. The expertise that defines global health is 1) a comprehensive understanding of the
factors that bear on the health of individuals, communities, and populations; 2) command of a
diverse array of analytic approaches in exploring significant problems in health worldwide; and
3) skill in transdisciplinary work, research, practice and/or education, to address health
inequities. The scale and complexity of the problems in global health require a synthetic,
transdisciplinary approach, that is, skill and versatility in the application of a plethora of scientific
theories, concepts, approaches, and methods.

Global health’s emphasis on knowledge development, practice, and research forms the basis
for our proposal for a PhD program that is academically challenging, requires original research
using appropriate theoretical approaches and research methods, builds the science of global
health, and prepares graduates for an academic career in a level-one research institution. A
PhD in global health provides greater depth in research methods and better prepares
academicians for careers in research than the DrPH, the professional practice degree in public
health. Furthermore, lacking a School of Public Health, UCSF cannot offer a DrPH.

Global health is emerging as a vital field of expertise to improve the health of populations in both
industrialized and developing nations. As such, it has taken center stage in transnational public
health efforts and funding, and has galvanized academic institutions, their faculty, and students
to join forces with the goal of improved health for all. At least eight factors can be cited for the
growing importance and popularity of global health:

Globalization: Globalization is transforming the world order in trade, commerce, and information
flow, promoting regional economic integration, creating new partnerships between health
professionals across national borders, and altering global disease patterns. As labor-intensive
manufacturing and service industries move increasingly to low- and middle-income countries
(LMICs), and individuals and their families emigrate to pursue work and a better standard of
living, a globalized workforce is emerging. The preparation of this workforce to address
transnational disease burdens and health needs demands a rigorous and intentional approach.

The Millennium Development Goals (MDG): Established in 2000 following the United Nations
(UN) Millennium Summit (www.un.org/millenniumgoals/bkgd.html), these goals are endorsed by
189 nations as a path to alleviate extreme poverty and multiple deprivations worldwide (e.g.,
goal 1 – eradicate extreme poverty and hunger, goal 2 – achieve universal primary education,
goal 6 – combat HIV/AIDS, malaria and other diseases). Although it was intended that the
MDGs be achieved by 2015, the reality is that goal achievement will be an ongoing process,
and the UN is currently formulating a successor set of Sustainable Development Goals (SDGs,
www.sustainabledevelopment.un.org) for the post-2015 era. The SDGs are likely to be closely
linked to the previous MDGs, with a focus on sustainable development and non-communicable
diseases. The goals should continue to serve as a foundation for global health efforts and will
require a long-term, collaborative commitment of well-trained global health professionals.

Health Equity and Social Justice: Recognition that food, potable water, health care resources,
and health itself are inequitably distributed has stimulated concern among faculty and students
in academic institutions and public health practitioners across the globe. Students, in particular,
contribute idealism and seek more agency and skills to move the world toward equity.
Health Diplomacy: This new branch of “soft power” is broadly defined as the application of targeted global public health efforts to advance bilateral and multilateral government-to-government relations, particularly in high-conflict areas and low-income countries. Health diplomacy melds public health, economics, management, law, and international affairs, and can be considered a marriage of diplomatic and global health efforts to improve health.

Global Health Policy: The health of the world’s population is related to the health delivery policies determined by national, bilateral, and multilateral organizations. However, academic researchers are often naïve about how policy is formulated and too often policy makers move forward with policies that are inadequately empirically informed. Global health policy should be founded on solid evidence that can inform policy making and eventually implementation.

Emerging/Tropical Infectious Diseases: The HIV/AIDS pandemic continues to take a heavy human toll. It has devastated many countries in sub-Saharan Africa, depleting their workforces, economies, and social and cultural fabric, while simultaneously threatening their national security. The 12 million children in Sub-Saharan Africa who are “AIDS orphans” urgently require the world’s attention. The HIV pandemic is also a major health problem in India, Southeast Asia, and China, and has become an increasing public health problem in Latin America. Migration plays a central role in HIV transmission, as it does with many other health challenges; research is needed to promote primary and secondary prevention among migrant populations.

Malaria is the major cause of death in children under five in Sub-Saharan Africa and is a major focus of research at GHS. Dengue and Chagas disease are among the 17 neglected tropical diseases enumerated by WHO and are a focus of study by University of California scientists. The National Institute of Infectious and Allergic Diseases defines emerging diseases as those pathogens identified in the last two decades; examples include new strains of human herpes virus and putative zoonotic pathogens such as the Middle Eastern Respiratory Syndrome (MERS) virus. Re-emerging diseases include tuberculosis, enterovirus 71, *Clostridium difficile*, mumps virus, Group A *Streptococcus*, and methicillin-resistant *Staphylococcus aureus*.

Non-communicable Diseases: Research on the global burden of disease indicates that chronic disease conditions and their risk factors figure prominently in disease morbidity and mortality in developing countries. Heart disease, diabetes, hypertension, cerebrovascular disease, obesity, and traffic accidents now account for about 50 percent of the global disease burden. Mental illness is projected to soon top the list of NCDs in the developing world. New, multidisciplinary approaches to prevention, diagnosis, and treatment of non-communicable disease are required. The Framework Convention on Tobacco Control, the first public health treaty negotiated under World Health Organization (WHO) auspices, addresses tobacco use as a leading cause of illness.

Population Control, Maternal and Child Health: Population control measures and access to contraception for women have had measurable salutary effects on global health, but much more needs to be done. The outcomes of uncontrolled population growth include food and water insecurity, environmental degradation, and growing social inequality. Maternal and child mortality rates, still alarmingly high in many countries, are linked to limited family planning.

1.2.1 UCSF Global Health Sciences

UCSF Global Health Sciences was established in 2003 to provide institutional leadership for the emerging field of global health at UCSF. The creation of GHS underscores UCSF’s commitment
to global health and to the care of vulnerable populations at home and throughout the world. Since September 2011, GHS has been under the leadership of Jaime Sepúlveda, who followed the tenures of Sir Richard Feachem and Haile Debas, former Executive Directors. In its ten-year history, Global Health Sciences has experienced rapid expansion, with about 200 faculty and staff working across its programs, the inclusion of The Institute of Global Health, an Organized Research Unit, and a growing number of educational, research, and action-oriented projects underway in dozens of countries.

A GHS organizational chart and brief descriptions of GHS units and programs that have expertise in both research and teaching follow below. These units, as well as the PhD Graduate Group, will meet the pedagogical objectives of the program and provide research opportunities for students.

**GHS Organizational Chart**

**The GHS Education and Training Group** has trained 761 participants since formal GHS education programs began in 2005: 163 in the MS degree program; 82 in the Pathway to Discovery in Global Health program; 201 in the Clinical Scholars program; and 317 in Complex Humanitarian Emergency Training. Molly Cooke became the education director in 2012.

The Global Health Sciences MS degree program has completed its sixth year. Graduates of the one-year program are prepared for leadership careers in global health policy, health care, research, and international development. Approximately half of the graduates are employed in the global/public health sector, teaching and/or conducting research in academia, and working at NGOs and in other public and non-profit areas. The remaining alumni are enrolled in advanced academic or professional degree programs and residency programs.

The MS program, initially under the leadership of John Ziegler, successfully completed its first five-year Academic Program Review in May 2013. External reviewers noted the outstanding academic quality of the program, diverse and formative experiential practica, strong and committed faculty, and high achieving students.
The Pathway to Discovery in Global Health program serves UCSF health professions students who desire a concentration in global health through coursework and clinical or research experience with an underserved population. In 2013, the program offered an MD with Distinction in Global Health for the first time.

The Clinical Scholars program is a training track for UCSF graduate healthcare professionals (UCSF residents, scholars, fellows, and graduate students) from the Schools of Medicine, Nursing, Dentistry, Pharmacy, and the Graduate Division, who wish to formally incorporate global health into their professional careers.

GHS provides support for an annual Complex Humanitarian Emergency Leadership Training two-day program that simulates a refugee crisis (e.g. the border of Syria and Turkey). Under the guidance and supervision of experienced professionals, participants perform a rapid assessment and develop plans to meet the needs of the simulated refugee population. The event challenges trainees to consider water sanitation concerns, learn sampling and communication skills, and address emergency medical needs, providing simulated on-the-ground experience.

Other entities with a largely educational function include the International Traineeships in AIDS Prevention Studies (I-TAPS). A joint program between GHS and the UCSF Center for AIDS Prevention Studies (CAPS), I-TAPS offers short-term post-doctoral research training for health professionals from low- and middle-income countries. Now in its 25th year, I-TAPS has trained more than 241 alumni from 46 countries, who have gone on to become leaders at their home universities, Ministries of Health, National Aids Control Programs, and United Nations Agencies. Collaborations between GHS doctoral students and I-TAPS scholars are planned.

The MS Graduate Group in Global Health Sciences, chaired by Craig Cohen, was established in 2008 as the degree-granting arm of GHS education programs, and includes faculty from across the four schools and members from other UC campuses. GHS has also formed a PhD Graduate Group and developed by-laws that are included in Appendix 2.

In addition to education programs, GHS is home to three groups working broadly in the area of implementation and systems strengthening. Two of these groups have content experts who currently teach in the Master’s program, and all three will be involved in teaching in the PhD program. Projects within the Global Health Group (GHG) and the Prevention and Public Health Group (PPGH) have served as the platform for MS students’ capstone work. We expect that PPGH, GHG, and the new Center for Implementation Science will likewise afford opportunities for our doctoral students’ research.

The Global Health Group (GHG) bridges the gap between evidence, policy, and implementation to stimulate practical international and local action to solve critical health challenges. Its team conducts targeted research and advocacy on behalf of three signature initiatives—the Malaria Elimination Initiative, the Private Sector Healthcare Initiative, and the Evidence to Policy Initiative—expanding global understanding and engaging a growing network of partners to take forward new approaches. Through its work, policymakers, funders, and country leaders gain access to new and relevant data, recommendations, and tools—and make informed decisions about important next steps in strategy, funding, and implementation.

The GHG is directed by Sir Richard Feachem, the Founding Executive Director of the Global Fund to Fight AIDS, TB and Malaria, and former Under Secretary General of the United Nations.
GHG collaborates closely with the WHO, the Bill & Melinda Gates Foundation, bilateral donors, and a number of other policy, finance, and academic groups around the world. The GHG has made significant contributions to: the advancement of malaria elimination; enhancing the role of the private sector in health systems strengthening; and synthesizing evidence to inform global health policy broadly.

The Prevention and Public Health Group (PPHG) works to strengthen public health systems and to prevent and control high-burden infectious and tropical diseases worldwide. PPHG’s 70 affiliated faculty and senior staff deploy their expertise and field experience around the world to conduct research, inform public health and clinical policy, train local professionals, and build capacity. PPHG leverages strengths in epidemiologic research methods, public health surveillance, monitoring and evaluation, systematic reviews and guidelines development, training, technical assistance, and mentoring.

Directed by George Rutherford, PPHG is supported by the US Centers for Disease Control and Prevention, the National Institutes of Health, Joint United Nations Program on HIV/AIDS, The President’s Emergency Program for AIDS Relief (PEPFAR) and the WHO, and works with academic, government, private, and community partners in more than 40 countries. PPHG also conducts systematic reviews of interventions and, as host of the Cochrane Collaboration’s HIV/AIDS Group, works in close collaboration with the WHO to develop clinical prevention and treatment guidelines, especially in the areas of HIV and HIV-related opportunistic infections.

The newest group is the Center for Implementation Sciences led by Eric Goosby, a UCSF-trained physician who, in November 2013, stepped down from his role as the nation’s Global AIDS Ambassador and head of PEPFAR. Dr. Goosby has returned to his alma mater and joined GHS to develop and lead a new center on Implementation Sciences.

Global Health Sciences also houses large research and applied research programs focused on three conditions or clusters of conditions of global importance: AIDS, neglected tropical illnesses, and preterm birth. GHS PhD students who choose to concentrate on a particular condition of global importance will find ample opportunities in association with these initiatives.

AIDS Research Institute (ARI) coordinates and integrates all AIDS research activities at UCSF. The ARI stimulates innovation and supports interdisciplinary collaboration aimed at all aspects of the epidemic domestically and around the world. Bringing together hundreds of scientists and more than 50 programs from throughout the university and affiliated labs and institutions, and working in close collaboration with affected communities, the ARI is one of the premier AIDS research entities in the world. ARI was formerly directed by John Greenspan, Associate Dean of Global Oral Health in the School of Dentistry, and has been under the leadership of Paul Volberding since 2012.

Fighting Infections through Research, Science and Technology (FIRST) is a partnership between the Carlos Slim Health Initiative (ICSS), the Bill & Melinda Gates Foundation, and UCSF that seeks to reduce the burden of infectious tropical diseases in neglected populations across Mesoamerica. The initiative comprises eight projects in the current portfolio; GHS serves as the prime grantee with Executive Director Jaime Sepúlveda as the principal investigator. GHS works with 15 different research partners—including UC Berkeley, San Diego, and Santa Cruz—on projects ranging from drug discovery to blood bank screening processes to innovative community-based vector control models. By bringing leading-edge research and new
technologies to bear on preventable infections, FIRST will significantly advance health and reduce inequities in the region’s eight countries.

A new partnership between the Bill & Melinda Gates Foundation and the Benioff Foundation with UCSF, the Preterm Birth Initiative constitutes a unique opportunity to address, over the next ten years, one of the most neglected global health challenges of our time: Preterm Birth (PTB). Prematurity is now the number one cause of neonatal death globally. The PTB Initiative will bring together several existing programs pioneered by UCSF research faculty in collaboration with local investigators at sites in East Africa, Central America, and Southeast Asia, as well as in the Bay Area and will develop new programs strategically designed to explore and address the complex convergence of biological, social and environmental factors that lead to PTB. The planning phase, currently underway, will create an integrated approach to reducing the burden of PTB, involve transdisciplinary teams who will develop research roadmaps for both discovery and implementation of new tools to tackle PTB, and enable the establishment of the project and knowledge management infrastructure to oversee the initiative.

Many other UCSF faculty members work worldwide on health issues of global importance beyond the units housed within GHS. The GHS Office of Research works with faculty and staff in GHS and across the campus to develop new areas of research, supports the creation of resources that facilitate global health research across UCSF, and provides funding and training opportunities for researchers. The GHS Office of Research oversees the Global Research Projects database, the UCSF East Africa office (with the Center for AIDS Research), RAP (Research Allocation Program) funding for basic science and policy research, the Burke Scholars Award program, and the Global Health Economics Consortium (GHECon). Paul Volberding is the Director of the GHS Office of Research.

All of the above research groups and initiatives, as well as those of our Graduate Group members, will constitute the foundation of our doctoral program, including teaching, research rotations, doctoral seminars, and the dissertation. These interdisciplinary and transdisciplinary entities also provide vital experiential opportunities to learn the skills needed to be a leader in the field of global health.

GHS also serves as the administrative home for the UC Global Health Institute (UCGHI). Directed by GHS’s Haile Debas and Thomas Coates from UCLA, the UCGHI is working to build an interdisciplinary, system-wide academic global health program that leverages the expertise of the ten UC campuses. UCSF is also the administrative hub for the NIH Fogarty GloCal Fellowship program through UCGHI, which provides 11-month international training opportunities to post-doctoral and pre-doctoral trainees.

Planning is underway at GHS for a UCSF School of Global Health Sciences; this school would be the first of its kind in the US.

1.3 Timetable for Development of the Proposed PhD Program, Including Enrollment Projections

GHS plans to enroll its first cohort of four students in Fall 2015. Initially, we plan to admit four new students every other year, and transition to an annual admission cycle as soon as additional funding is available. Student support will be derived from individual or group training grants (NIH F31, T32, or other mechanisms from NIH or UCSF intramural training grants), funding from GHS faculty, and philanthropically supported student fellowships. Additional
student support from UCSF Global Health Sciences has been guaranteed (see letter from Dr. Jaime Sepulveda). The timeline for development of the program follows.

**Campus Review:**

- Graduate Division Dean, April 2014
- Graduate Council, May-October 2014
- Academic Senate Coordinating Council, October-November 2014
- UCSF Academic Senate, November 2014
- Chancellor, December 2014

**Systemwide Review:**

- Coordinating Committee on Graduate Affairs, December-February 2015
- UCOP Provost/ Sr. VP/ President, March 2015

**Program Launch:**

- Application and admission process, spring quarter 2015
- Program start, fall quarter 2015

1.4 Relationship of the Proposed Program to Existing Programs on Campus and to Campus Academic Plan

International health programs and projects have long been part of the rich training and research portfolio of UCSF faculty; UCSF currently has many projects in scores of countries throughout the world representing all four of its professional schools, the basic science departments, and specialized interdisciplinary units such as the AIDS Research Institute. However, the campus has never had a graduate training track in this field, leaving students who are interested in global health careers to create interdisciplinary training on their own. It is expected that the PhD program in global health sciences will complement existing program activities, as opposed to being competitive with them, by sharing coursework and collaborating on research projects and rotations. As a result of this collaborative approach, the proposed PhD in Global Health Sciences has received wide support at UCSF from the other PhD program directors (see letters of support).

**Medical Sciences Training Program (MSTP):** The combined MD/PhD program usually enrolls twelve students each year, who complete both degrees in about seven years. Most students are enrolled in biomedical science doctoral programs, with one social science program (medical anthropology) represented. Since a Global Health Sciences PhD program would be an attractive degree option for MD students, GHS will explore partnering with the MSTP in the future and the feasibility of a joint degree program.

**PhD Degree Programs in Medical Anthropology, History of Health Sciences, Medical Sociology, Nursing, and Epidemiology and Translational Science:** The proposed GHS doctoral program will work closely with these well-established UCSF graduate programs to share coursework, mentors and advisors, and collaborate on mutually relevant research projects. Faculty members in these doctoral programs currently serve as course instructors, advisors, MS capstone
mentors, and as members of the MS GHS Graduate Group. Their contributions will be crucial to the success of the future doctoral program in global health.

The GHS PhD program will be closely affiliated with the Epidemiology and Translational (ETS) Science doctoral program. Dr. Maria Glymour, Director of the ETS PhD Program has contributed to productive discussions about its design. GHS doctoral students will be enrolled in some of the epidemiology and biostatistics coursework taken by the ETS students, including EPI 203, EPI 207, EPI 265, BIOSTAT 208, and BIOSTAT 209. This affiliation will allow development of collegueship between the ETS and GHS students and will form the basis for later collaboration. We anticipate a balanced partnership based on the sharing of doctoral level courses, courses likely to be of interest to students in the global health concentration in ETS. To underline the distinction between the two programs, graduates of the ETS global health track will be epidemiologists while graduates of the GHS doctoral will be transdisciplinary experts in global health. We will jointly develop a FAQ list that assists applicants in deciding which doctoral program is better suited to their own research interests and capabilities.

School of Dentistry (SOD): The Program in Global Oral Health (dentistry.ucsf.edu/science-research/global-oral-health) in the SOD is led by the Associate Dean for Global Oral Health, John Greenspan and Director Ben Chaffee. Its mission is the improvement of oral and craniofacial health worldwide. The goals for the program include building, strengthening, and coordinating activities in global oral health, developing and supporting programs of excellence, educational, research and community/public service in global oral health and international health, and interacting with UCSF campus, systemwide, and other initiatives in global health. To achieve these goals, the SOD established a successful Oral Global Health Symposium in 2011; the program continues on an annual basis and has tackled challenging oral health problems.

School of Medicine (SOM): A number of the programs falling under the aegis of Global Health Sciences were initiated by faculty in the SOM in response to requests by medical students and residents for programs in global health. Other campus-wide projects such as CTSI, which has a global health component, were originally developed by the SOM. The Division of Hospital Medicine’s Global Health Core and residency program “aims to improve the health of vulnerable populations throughout the world by adapting the unique skill sets of academic hospitalists to resource-poor settings to reduce the burden of disease and realize global health equity.” Because of its size and the level of interest among its learners, the SOM has also provided leadership in a number of campus initiatives, including development of guidelines for student and trainee clinical rotations and safety and security protocols. The SOM has permitted a number of its faculty to teach and mentor students in GHS and continue a very close affiliation.

School of Nursing (SON): As have other professional schools, the SON has experienced burgeoning interest on the part of both master’s and doctoral students who desire global health opportunities either for clinical experiences or research sites for dissertations. As a result, the School initiated a global health minor in 2011, now the most popular minor in the SON. The interest of SON students in global health is evidenced by the fact that they are the second largest group of professional students enrolled in the Clinical Scholars program, Global Health 101, and the Pathways program, following learners from the much larger SOM. We expect that SON masters graduates will apply in substantial numbers for the proposed PhD in global health.

School of Pharmacy (SOP): Aligned with the UCSF tagline “advancing health worldwide™,” the SOP recognizes that their students benefit from international partnerships in teaching, research, and service. Pharmacy students and trainees nationwide are increasingly interested in including
global health content in their curricula and to this end the School of Pharmacy is working to provide global health experiences for PharmD students going abroad for advanced pharmacy practice experiences. SOP students also participate in the Global Health Pathways program and one PharmD student recently graduated from the GHS MS program.

Responding to the interest of students in all four professional schools and the Graduate Division, the Global Health Education Council was formed in September 2013. This group of cross-campus stakeholders is chaired by Molly Cooke and provides guidance on the implementation of the PhD program as well as the direction for other global health activities. A second group, the Global Health Education Faculty Interest Group (GHE-FIG) comprises faculty members in all four schools who sponsor learners in clinical settings globally. Both groups are working toward systematization of guidelines for students across all four schools and the Graduate Division, and are making global health student research and clinical and educational experiences safer and more meaningful. Future plans also include the development of joint or concurrent degree programs with the professional schools.

1.5 Interrelationship of the Program with Other University of California Institutions

The UCSF PhD in Global Health Sciences will be the first such stand-alone doctoral program in the UC system. While many institutions provide doctoral level training in related disciplines (see summary below), no campus provides this specific and unique transdisciplinary training and research opportunity. Section 3.1 below details data pertaining to global health academic programs outside of California and the foci of and differences between various programs within California. (See letters of support from other UC institutions.)

UC San Diego: A PhD in Public Health with a concentration in Epidemiology, Health Behavior, or Global Health is offered through the Joint Doctoral Program (JDP) between San Diego State University (SDSU) and the University of California, San Diego (UCSD). The JDP is jointly administered by the Graduate School of Public Health at SDSU and the Department of Family and Preventive Medicine in the School of Medicine. UCSD also offers an undergraduate minor in Global Health, and approval to launch a Global Health major in AY 2015 was announced in May 2014.

UC Davis: The Department of Public Health Sciences (formerly the Department of Epidemiology and Preventive Medicine) is a clinical and research department in the UC Davis School of Medicine. The mission of the Department of Public Health Sciences is to improve the health of people using approaches based in epidemiology, biostatistics, economics, and behavioral science through research, educational programs, clinical programs, public service, and policy development. UC Davis offers PhD programs in Epidemiology, Biostatics, and Pharmacology and Toxicology. The DVM and MPVM degrees are offered through the UCD School of Veterinary Medicine, which includes electives in One Health—a synthetic approach to public health that recognizes the connections between human health, animal health, and the environment.

UC Los Angeles: The Fielding School of Public Health comprises five departments: Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Services. Programs leading to the MPH and DrPH degrees emphasize solving public health problems by applying professional disciplinary approaches and methods in professional environments such as local, state, or national public health agencies and health care organizations. Related PhD degrees offered at UCLA include Health and Policy Management,
Epidemiology, Environmental Health, Community Health Sciences, and Biostatistics. The UCLA David Geffen School of Medicine provides a wide array of global health education and training programs that includes coursework, clinical rotations, a speaker series and journal club.

**UC Berkeley:** The UCB School of Public Health offers a DrPH, which is an interdisciplinary, professional degree that trains doctoral students to be public health leaders and practitioners. The campus also offers PhDs in related public health fields through its Graduate Groups in Biostatistics, Environmental Sciences, Epidemiology, Health Services and Policy Analysis, and Infectious Diseases and Immunology, as well as a joint PhD in Medical Anthropology with UCSF. The School recently announced the formation of a Center for Global Health but has no plans to initiate PhD training in global health. UC Berkeley also offers a Master of Science in Global Health & Environment, an interdisciplinary, campus-wide program based in the School of Public Health that is oriented towards students in environmental sciences.

**UC Irvine:** The new UCI School of Public Health has recently implemented a PhD program in Public Health with a concentration in Global Health and Disease Prevention.

**UC Riverside:** The new UCR School of Public Policy plans to offer a master’s degree in Global Health in the fall of 2015, modeled closely on the UCSF MS program but offering a two-year thesis option. It is anticipated that this program, with an expected enrollment of approximately 30 students, will serve as a pipeline for the UCSF doctoral program.

### 1.6 Administration and Governance of the Program

The PhD will be housed at UCSF Global Health Sciences and governed by the PhD Graduate Group in Global Health Sciences. This is a multidisciplinary and broadly inclusive academic group unique at UCSF in its inclusion of faculty in the basic sciences, health policy, clinical medicine, and clinical research from across the four schools and the Graduate Division, all of whom have expertise in doctoral level training.

The Graduate Group will include an Executive Committee, a Curriculum Committee responsible for the ongoing enhancements of the doctoral curriculum, and an Admissions Committee responsible for the recruitment plan, admissions process, reviewing applications, and selecting candidates for the program. The by-laws of the Graduate Group are available in Appendix 2.

The PhD Program will have a dedicated faculty Program Director and staff Program Coordinator.

The Program Director will:

- Serve on the Executive Committee of the Graduate Group as a voting ex-officio member;
- Set the academic standards for the degree program;
- Ensure satisfactory student progress toward degree completion;
- Ensure appropriate student, faculty, and course evaluation process;
- Oversee funding and resources for the program and determine fellowship allocations;
- Recruit and appoint faculty course directors, advisors, mentors, GSIs, GSRs; and,
- Act as liaison to GHS and campus leadership, the other schools and Graduate Division, and outside organizations.
The PhD staff coordinator will:

- Implement the recruitment, application, and admission process;
- Coordinate fellowships and other student support and facilitate grant writing efforts;
- Provide staff support for the business and activities of the Graduate Group;
- Maintain student and alumni tracking system;
- Serve as liaison to central campus student services;
- Coordinate course scheduling, evaluation process, digital enhancements to courses, student orientation, retreats;

1.7 Plan for the Evaluation of the Program

We will take a comprehensive, multi-method approach to the assessment of the program. This includes an overall examination of inputs and outputs:

- Demand for the program and qualifications of the applicants;
- Comparisons with other global health doctoral programs;
- Time to degree completion;
- Peer teaching evaluations;
- Formative and summative interviews with students; and,
- Career choice of graduates and employment in the desired field

In addition, at the end of each quarter, students will evaluate the faculty instructor and course. The results of these evaluations will be analyzed by the Program Director, the Executive Committee, and the Curriculum Committee to assess strengths and weaknesses in the courses. Students will also have an annual evaluation with their advisors to assure that they are making satisfactory progress toward degree completion. These evaluations also will be reviewed by the Program Director and Executive Committee to determine if any interventions are needed.

Longitudinal data will be collected from alumni one-, three-, and five-year post-graduation to assess the graduates’ employment, publications, and success in acquiring grants. The Graduate Division and the Graduate Council will conduct the Academic Program Review approximately every five years according to Academic Senate regulations. This will include a self-study, external review by experts in the discipline, and a student survey.

SECTION 2. PROGRAM

2.1 Candidates’ Preparation, Admission Requirements, and Process

Minimum criteria for admission to UCSF graduate programs is determined by the Graduate Division and includes satisfactory completion of a bachelor’s degree from an accredited institution in the U.S or its international equivalent, with a GPA of 3.0. Successful candidates for admission to the GHS PhD program will also have completed a master’s degree in public health, global health, biomedical sciences, or its equivalent; or have completed a terminal professional degree, such as a DDS, MD, PharmD, MS in Nutrition, DVM, MS or DNP in Nursing. Concurrent enrollment also will be considered for students enrolled in terminal professional degree programs. Applicants will be expected to have experience working with underserved populations, prior exposure to scientific research, and have completed at least one
course each in biostatistics, epidemiology, and research methods. Applicants who do not conform to this profile may be considered on a case-by-case basis.

Admission requirements and process:

1. Completed online application and payment of the campus application fee.
2. Résumé summarizing education, professional experience, research experience, publications, honors and awards, US and international experience, volunteer work, extracurricular interests and special skills.
3. A personal statement outlining reasons for applying to the program and the area of interest (i.e. concentration), prior experience with underserved populations, and how the program will help achieve career goals.
4. Three letters of recommendation from individuals qualified to assess the applicant’s academic strengths, personal qualities, and accomplishments.
5. Original transcripts from undergraduate and graduate schools.
6. GRE scores within the last five years.
7. International applicants from non-English speaking countries must demonstrate proficiency in English by completing one year of study with a minimum GPA of 3.0 at an accredited college or university in the United States, or by obtaining specific scores on the Test Of English as a Foreign Language (TOEFL, administered by ETS), or the International English Language Testing System (IELTS, administered by the University of Cambridge, the British Council, and IELTS Australia). The minimum scores are posted at the UCSF Graduate Division website and it is incumbent upon the applicant to make sure that their scores are consistent with those required by the Graduate Division.

The admissions process will be overseen by the PhD Admissions Committee; the composition of the Admissions Committee is described in the bylaws of the PhD Graduate Group (Appendix 2).

2.2 Language Requirements

Although not an absolute requirement, proficiency in a second language will be viewed favorably. Demonstrated proficiency in a specific language will be required on a case-by-case basis in order for a student to conduct field research relevant to completion of their dissertation.

2.3 Program of Study

PhD students will be required to spend six quarters in residency and complete a total of 45 units prior to the qualifying examination and advancement to candidacy.

2.3.1 Specific Fields of Emphasis

The distinguishing feature of the graduates of this PhD program will be command of and skill in applying transdisciplinary knowledge drawing from public health, epidemiology and biostatistics, public policy, economics, development studies, clinical and basic sciences, political science, and other social sciences to address health problems of global importance.

There will be four areas of concentration in the new doctoral program that represent the strengths, research and teaching expertise, and sponsored projects within GHS, as well as the
Graduate Group and greater campus. Students will be admitted and matched to an appropriate advisor based on their area of concentration. Students will take the required courses listed in section 2.3.3 and will acquire depth and breadth in the specific concentration through participation in research rotations, electives, and independent studies with faculty.

1. Clinical concentration – non-communicable/neglected/tropical/infectious diseases and maternal/child health:
   a. Focus is on the major diseases that contribute to the global burden of disease and the application of research methods appropriate to interventions to decrease the global burden.

2. Policy concentration – public health policy in a globalized world:
   a. Focus is on independent analysis and evidence synthesis to inform discussion and decision-making on critical policy and strategic issues in global health.
   b. Focus is on identifying, understanding and promoting innovative models for engaging the private sector in health systems strengthening in developing countries.

3. Health systems concentration – workforce capacity and health systems strengthening:
   a. Focus is on identifying important models for financing and delivering health care around the world and analysis of strengths and weaknesses of various health care systems in achieving health and financial goals.
   b. Emphasis is on strengthening workforce capacity especially in LMIC, working with ministries of health to reduce the global burden of disease through health system strengthening employing implementation science research methods and health diplomacy strategies.

4. Social and behavioral science concentration – examples include theories related to and derived from health economics, law, medical anthropology, and medical sociology:
   a. Focus is on understanding health economics, legal structures, political influences and other barriers and facilitators to decreasing the global burden of disease.
   b. Emphasis on the social determinants of health and how social science theories such as those related to health promotion can improve health globally.

The concentrations differ from existing doctoral programs at UCSF in that the research approach and curriculum includes a synthesis of methods and courses from various fields and a transdisciplinary approach to understanding global health and its drivers. Appropriate methods for student dissertations include policy analytic techniques, implementation science, epidemiologic and biostatistical methods, and qualitative and mixed methods analysis.

As an example, the Global Health Group (GHG), previously described, is an “action tank” dedicated to identifying, elaborating, and translating innovative solutions to major global health challenges into large-scale action to advance health and save lives in low- and middle-income countries. The GHG’s team of global health experts conducts targeted research and advocacy with a focus on three areas: malaria elimination (globalhealthsciences.ucsf.edu/global-health-group/malaria-elimination-initiative); the role of the private sector (globalhealthsciences.ucsf.edu/global-health-group/private-sector-healthcare-initiative-pshi); and, translating evidence into policy (e2pi.org).

Thus, students who wish to focus on global health policy, advocacy, or financing, or those with a particular interest in malaria epidemiology, the role of the private sector, or global health governance, will affiliate with faculty in this group for research rotations and development of research proposals and dissertations. However, students in concentrations other than policy
may also choose to avail themselves of research rotations with faculty in this area. For example, a student in the health systems may also choose to work with faculty in GHG to develop expertise in the role of the private sector and how it might be mobilized to strengthen health systems. The GHS groups represent concentrations of particular interest and expertise but there is not a one-to-one correspondence between any GHS group and a concentration.

As previously described, another important group at GHS is the Prevention and Public Health Group (PPHG), which addresses both domestic health and global health through the training of local professionals, evaluation of data to inform policy, conduct of research, and building capacity. One of their areas of focus is health systems strengthening. Students who are interested in studying methods of increasing inter-professional education to strengthen health systems in low- and middle-income countries would be well matched to the PPHG.

Students with a more clinical focus will find research opportunities elsewhere at GHS. For example, a student interested in AIDS will find mentors among the faculty of the UCSF AIDS Research Institute (ARI). Similarly, a student desiring to concentrate on population control or gender-based violence in Sub-Saharan Africa could affiliate with the Bixby Center and work with Craig Cohen, Co-director of the UC-wide Center of Expertise in Women’s Health and Empowerment. That same student might also affiliate with Eric Goosby’s Center for Implementation Science to ascertain the most effective interventions for LMICs to reduce gender-based violence.

Additional examples below describe various scenarios related to the program concentrations and GHS groups and centers, as well as to applicant backgrounds and employment after completion of the PhD. As previously described, we expect that the majority of our PhD students will enter the program with some post-baccalaureate education (e.g., either master’s degrees in global or public health or as medical, dental, pharmacy or master’s level nursing students). Below, we illustrate how four students with different backgrounds might use the concentrations to focus their doctoral work and how they might prepare for subsequent careers in global health.

1. A graduate of the GHS master’s program: As mentioned, many graduates of our master’s program recognize that they would benefit from additional training; we are frequently asked when we will be admitting our first group of PhD candidates. A masters graduate might, for example, have a particular interest in community needs assessment and community engagement as they pertain to global health. Therefore, the methodological skills and research opportunities available through the social science concentration would be particularly useful. At graduation, she might take a position at a leadership level with an NGO or service organization.

2. An MPH graduate with three years of experience working as a research assistant in East Africa: Motivated by the problems he has seen, this student seeks to understand how to effect change at a regional or national level. He chooses the policy concentration and finds a mentor in the Global Health Group. After graduation, he takes a position as a project officer in a large foundation.

3. A nurse-midwife with a clinical position at a US academic health center: This student might gravitate to the Preterm Birth project, but would focus on approaches to bringing frugal interventions, such as kangaroo mother care, to scale. Having earned a PhD, she would now qualify for an academic appointment as a faculty member at her school of nursing.

4. A physician from a LMIC: This student’s clinical work has convinced him of the need for leadership in health systems strengthening in his home country. He chooses to develop
expertise in implementation science, working perhaps with the Center for Implementation Science or with the Private Sector Healthcare Initiative of the GHG. On completion of his PhD, he takes a position in his country’s Ministry of Health.

### 2.3.2 Unit Requirements

PhD students will be required to spend six quarters in residence. Generally, all coursework will be taken in years one and two for a minimum of 45 units prior to the written qualifying examination and advancement to candidacy. In addition, a student must register for a minimum of three quarters after advancement to candidacy.

Doctoral students will take advantage of GHS strengths in biomedical, clinical and policy research, as well as our transdisciplinary approach to training and research. Because of the diverse educational backgrounds of the applicants admitted, we expect that students in the PhD program will vary substantially in their prior preparation in epidemiology, biostatistics, mixed method analytic strategies, the social sciences, and global health coursework relevant to the study of global health and disease. Therefore, required and elective courses are available through both GHS and the wider campus offerings to prepare students for their research and future careers. It is expected that our applicants will have some knowledge of the clinical sciences that will serve as a foundation to their study and dissertation research in Global Health Sciences. The following section highlights the current understanding of transdisciplinary science and the approach we will use in integrating transdisciplinary science throughout this new doctoral program.

A definition of transdisciplinary research was offered earlier in this document. That is, “transdisciplinary research aims to integrate knowledge from various scientific and societal bodies of knowledge” (Popa F, et al., 2014) such that it will yield qualitatively different results than interdisciplinary research. Although questions related to the nature of transdisciplinary science are rife in the literature across fields as diverse as marine science (Ciannelli L, et al., 2014), ecosystems services (Costanza R, et al., 2011), and cancer research (Vogel AL, et al., 2012) transdisciplinary research is recognized as a method of addressing science and complex social problems, an approach that is especially well suited to global health research. A transdisciplinary approach uses “a shared conceptual framework and strategy to select and draw together disciplinary-specific theories, concepts, and approaches to address a particular problem.” This model is not different from the work that emanates from the population and social science disciplines, but is generally different from a basic sciences PhD. In the case of a PhD in Global Health Sciences the student may initiate a transdisciplinary approach as a means of addressing an important problem that has not previously been studied in this manner. Thus, a significant element of the intellectual work is the development of a conceptual framework and strategy that could be shared with faculty members who would agree to such an approach and support the student through exposure to theories, concepts, and methods so that the requirements of an independent and original dissertation can be met.

### 2.3.3 Required and Recommended Courses including Teaching Requirement

Coursework will provide the methodological expertise to design and independently conduct doctoral level dissertation research. Other coursework will survey the ongoing development of the knowledge base of the field. Electives provide the opportunity to deepen students’ knowledge in their area of concentration. It is anticipated that, while electives will be developed with a particular concentration in mind, there will be some crossover reflecting individual
students’ backgrounds, interests and goals. Electives may also be configured as independent studies or students may choose to enroll in other PhD courses on campus.

As with many doctoral programs, students’ program of study will be individualized to some extent based on their previous academic coursework. Students who have met competencies in the areas where we require coursework will be able to waive the course at the discretion of the instructor and Program Director. They will, however, be accountable for demonstrating their knowledge in the area during the qualifying examination process.

A sample program is included in section 2.11. Required courses are listed below and selected electives are listed in Appendix 1.

Required courses include:

1. Three courses in epidemiologic methods—one intermediate and two advanced level epidemiology courses;
2. Two courses in advanced level quantitative research methods—one in intermediate biostatistics and one in advanced biostatistics;
3. A minimum of one course in intermediate qualitative methods in the social sciences;
4. Two courses—Advanced Concepts in Global Health and Global Health Economics;
5. One course in communicable/infectious diseases;
6. One course in the social determinants of health;
7. One course in health systems strengthening;
8. One course in policy analysis and development;
9. Three quarters of research rotations of two units each (one rotation unit equals three rotation hours/week; two units equals 6 hours/week of research rotation or 60 hours research rotation/quarter) for a total of six units; students will be required to complete their three research rotations before they are advanced to candidacy so that they are prepared to begin writing their qualifying examinations during year two;
10. Three quarters of weekly Doctoral Seminars; and,
11. Two elective courses of which one may be an independent study with a faculty member.

Students have access to a broad array of elective courses through 1) UCSF; 2) any of the University of California campuses through the Intercampus Exchange Program; 3) the Stanford University-UCSF Exchange Program; and 4) the San Francisco Consortium of Bay Area Universities. These courses are expected to build depth in the student’s area of concentration. For example, a student in the social and behavioral sciences concentration focusing on gender based violence in low- and middle-income countries may choose GHS208 Women’s Health and Empowerment as one of two required electives. Similarly, another student in the global health policy concentration may choose elective coursework such as EPI 213 Decision and Cost-Effectiveness Analysis.

The objective of the research rotations is for the student to have the opportunity to:

1. Apply concepts taught in formal classes;
2. Learn practical aspects of conducting research, including how to work within a multidisciplinary team;
3. Acquire exposure to areas of research other than the student’s primary area; and
4. Explore and launch projects that have the potential to develop into a qualifying examination or dissertation research topic.
Research rotations are an opportunity to integrate PhD students into active research teams in GHS or other UCSF teams doing relevant research. The PhD Program Director will oversee the research rotations and training objectives. The Graduate Group Executive Committee, with input from GG members, will review annually, and revise when needed, research rotation objectives. At least one of the rotations will be guided by the student's advisor. The Program Director will ensure that these rotations afford author-level involvement (i.e., participation in research at a level justifying future inclusion as an author on a subsequent publication) for the student. Each rotation should allow the student to create a specific product. Examples of useful research products include, but are not limited to:

1. A research questionnaire or other data collection tool;
2. An operations manual chapter;
3. Development of a human subjects protocol for approval by UCSF CHR;
4. Participation in the development and writing of a scholarly manuscript related to the research rotation; or
5. An annotated set of statistical analyses/tables/figures related to one research rotation.

Research rotations are graded on a pass/fail basis by the faculty advisor with whom the student has worked. Grades are based on the quality of the research rotation product. The following are examples of currently proposed objectives, although only some objectives will be appropriate for each research rotation:

1. Demonstrate knowledge of the proposal writing process by participating in research team meetings and planning for collaboration including conceptual discussions of research idea and framework and selection of data collection methods.
2. Exhibit knowledge of human subjects protection by writing IRB applications.
3. Make evident knowledge of research ethics through explicit discussion of ethical treatment of research subjects.
4. Validate preparation for research by: development of data collection instruments/questionnaires; obtaining informed consent on PI’s project; developing community or site relationships/entrée; and, preparing for and pilot testing various data collection methods.
5. Display knowledge of the data collection process by interviewing subjects; participating in psychosocial testing of human subjects, and collecting physiological data.
6. Demonstrate knowledge of data coding and preparation of data related to: computer data management; coding; data entry; utilizing a spreadsheet for managing data; qualitative data management; coding transcripts; and utilizing computer based programs for management of qualitative data.
7. Demonstrate knowledge of analytic strategies by: performing computerized data analysis; participating in team meetings for data analysis; and assisting with interpretation of findings.
8. Develop skills in research dissemination by: report writing; writing manuscripts; and revising manuscripts.

The two-hour weekly Doctoral Seminars (one unit of seminar credit equals two hours of classroom seminar) will begin during year one and continue during year two. The first doctoral seminar will introduce students to clinical research design including techniques for systematic review of the literature, writing measureable research questions, recruitment, sampling, validity and reliability of measurement, survey design, analytic strategies, and other topics that will conclude with the production of a ten page proposal that can be submitted for extramural
funding. Topics in the succeeding doctoral seminars will include, among others, Global Health Ethics, History of Science and History of Global Health, Responsible Conduct of Research, and issues confronted by students in global health research settings. Student preparation for qualifying examinations, development of the dissertation proposal, and writing of the dissertation will be included as well. Lastly, we will further explore the four PhD areas of concentration—clinical, policy, health systems, and social sciences—through assigned readings and presentations by experts. Faculty and students will be responsible for the presentation of Doctoral Seminar material.

During year two students will be required to submit papers related to their area of concentration. These papers will serve as the basis of their qualifying exams and dissertation proposals. In the population and social sciences it is not unusual for students to develop outlines or parts of qualifying examination papers as part of a doctoral seminar. In fact, we believe that the process of sharing their ideas with peer colleagues, as well as with the faculty member in charge, builds and extends the scientific community. The papers prepared for seminar will not be the qualifying examination papers in entirety but rather outlines, figures, annotated bibliographies, etc. that the student and the faculty member consider most likely to help move the examination process forward.

In addition to the six quarters of residency (which enforces minimum amounts of coursework), a written and oral qualifying examination and the completion of an approved dissertation are required.

**Teaching Requirement:** One quarter serving as a graduate student instructor is required. Teaching is available in the GHS MS program and all doctoral students are expected to work with their advisor to identify an appropriate placement. Faculty and students plan for a multi-faceted instructional experience, and concurrently examine the faculty role in university governance through readings, interviews, and observation of relevant meetings.

### 2.3.4 Licensure

Not applicable

### 2.4 Field Examinations

Not applicable

### 2.5 Qualifying Examinations

The purpose of the qualifying examination is to demonstrate that the student has adequate knowledge of the field and area of concentration, knows how to use academic resources, and is capable of conducting independent research for the dissertation. The following are the GHS expectations for the qualifying examination:

1. Before taking the qualifying examination, students will have completed foundational course work and completed three research rotations of at least two units each.
2. Essential qualities that should be exhibited in the focus papers are:
   a. Comprehensive knowledge of the literature for the area of concentration
   b. Critical approach to empirical evidence; and
   c. Integration and synthesis of ideas within each area.
Appointed in consultation with the student’s advisor and the PhD Program Director, the qualifying examination committee will be composed of at least two GHS Graduate Group members with the remainder of the faculty chosen from outside the Group. Members of the Qualifying Examination Committee from outside the GHS Graduate Group must have an appropriate level of prior experience serving on previous qualifying exam committees. Faculty members or subject matter experts from outside UCSF may be invited to serve on examination committees with the permission of the Graduate Division. In no case may the dissertation chair serve also as chair of the qualifying examination committee and in some cases it may not be in the best interests of the student for the dissertation chair to serve on the qualifying examination committee. In such cases, the PhD Program Director will identify another qualified member to serve on the qualifying exam committee.

The qualifying examination includes both the writing of the three papers, developed during the doctoral seminars and based on content from research rotations and coursework, and an oral examination based on the content of the papers. These three papers form the basis of the first three chapters of the dissertation. Typically, qualifying exams will held at the end of the second year.

At least one meeting of the entire qualifying examination committee must be held to discuss the results of the exam before a report is made to the dean of the Graduate Division. If a student fails the examination, the committee must make a recommendation for or against a second examination. If a second examination is allowed, the second qualifying examination committee must be identical in composition to the first. If the student failed in all areas, the re-examination must be on all subjects involved. A partial failure, in which the student passes some fields, but not others, also counts as a first examination. However, re-examination after partial failure may be restricted to those areas in which the original performance was unsatisfactory. A third examination is not permitted.

2.6 Dissertation

The dissertation is the final and most important step in the doctoral degree program. The dissertation will be a work of independent research that makes an original contribution to knowledge in global health, and will be of sufficient depth and quality to be submitted for publication. Each doctoral student will conduct research under the supervision of a dissertation advisor/research mentor and dissertation committee. The dissertation will follow the Graduate Division’s “Guidelines for Completion of the PhD Dissertation.”

Once a student successfully passes the qualifying examination, the student’s Dissertation Committee will be formed. The committee will consist of a minimum of three Academic Senate members who have sufficient experience to serve on dissertation committees. In some circumstances, the PhD Program Director may appoint a faculty member from outside the PhD Graduate Group to serve on the dissertation committee. Such a member would provide the necessary balance and independence needed to ensure that the student's mastery of the subject matter is broad and comprehensive. If one or more proposed committee members are not members of the UCSF Academic Senate, the student may petition the Graduate Division to accept a non-senate member to serve on their committee. The non-senate member may not be the chair of the committee, but may serve on the committee as a regular member or co-chair with an approved Academic Senate member. The dissertation chair may not be the same person as the individual who chaired the qualifying examination committee.
Following approval of the dissertation draft by committee members the doctoral candidate will present their dissertation to the public (primarily faculty and students) and the dissertation committee will provide feedback to the doctoral candidate. Both major and/or minor changes may be required before the dissertation is filed.

2.7 Final Examination

Not applicable

2.8 Explanation of Special Requirements (if applicable)

Not applicable

2.9 Relationship of masters and doctoral programs

The GHS MS degree is a one-year, four-quarter, full-time program that requires a minimum of 36 units and a capstone project. This is a self-supporting program that enrolled 45 students from a wide diversity of backgrounds and disciplines in fall 2014.

It is expected that the proposed PhD and MS programs will be closely linked in terms of teaching, coursework, fieldwork sites, and research projects. The five GHS masters courses in which doctoral students will be enrolled are of sufficiently high quality that, through supplementation of the courses with additional readings and written requirements, the coursework will be suitably academically rigorous for doctoral students. Doctoral students will fulfill their teaching requirement by serving as teaching assistants in the MS program, and there will be the opportunity for collaboration between MS capstone projects and dissertation research topics.

There exists a current campus model, whereby doctoral students take courses in a self-supporting masters/certificate programs. In the Department of Epidemiology and Biostatistics, the Training in Clinical Research Certificate (TICR) is self-supporting, as is the masters in Clinical Research. Doctoral students in Epidemiology and Translational Science are enrolled in the TICR/masters courses for some of their coursework and serve as teaching assistants in those programs.

Because the enrollment of the GHS PhD program is relatively small (four new students admitted every other year until the program can support a new cohort each year), there will not be a significant effect on the total enrollment in the masters courses. Also, both programs will be located in Mission Hall, a new building at the UCSF Mission Bay campus that has more than adequate space to accommodate the new program.

Since numerous requests are received from the MS graduates each year for the opportunity to pursue doctoral study, it is anticipated that the program will serve as a significant pipeline for recruitment to the PhD. For example, data collected from GHS MS graduates from 2009-2012, indicates that of the 72 graduates who entered the program without a terminal degree, a total of 64 (89%) have enrolled in or plan to enroll in further graduate or professional education.

In summary, current faculty who teach and mentor students in the MS program are highly enthusiastic in their support of the PhD program. As noted in the support letter from the GHS MS Program Directors, the PhD will have a positive impact on the MS degree by:
• Creating the opportunity for MS and PhD students to work together on research projects;
• Providing the opportunity for shared coursework across programs;
• Providing opportunities for MS students to take new elective courses within the PhD program;
• Serving as a pipeline for MS students who are interested in doctoral level training in global health; and,
• Providing graduate student instructors for master’s courses, and conversely, providing valuable teaching experience for the PhD students.

For the reasons mentioned, we believe that it is advisable to closely link the PhD and the MS. However, we fully understand the need to ensure the academic and financial integrity of both programs. Consequently, we have worked closely with the MS Program Director, the GHS leadership, and the UCSF Budget office to ensure appropriate management of both programs in compliance with UC academic polices and those required of self-supporting programs. For example:

• The MS Program Director will be a member of the PhD Graduate Group and serve as an ex-officio member of the Executive Committee. Likewise, the MS Graduate Group by-laws will be amended to include the PhD Program Director as an ex-officio member of the MS Graduate Group and Executive Committee.
• The PhD Program will be housed in the Education Unit of GHS, just as the MS degree program, both with administrative oversight by the GHS Education Director. Staff for both the MS and PhD degree will be housed in the same location offering easy access for planning and program coordination.
• Fundraising activities for scholarships will be synergistic and under the auspices of the GHS Development Officer.
• The UCSF Budget Office provides annual reviews of the MS self-supporting program budget and the GHS Education Officer will be responsible for the management of budgets and operations for both degree programs.

2.10 Special Preparation for Careers in Teaching

Each doctoral student will be required to serve as a teaching assistant for one quarter, but there will be no special preparation to prepare students for a career in teaching.

2.11 Sample Program

Below is a sample program for the PhD program. Students who have previously completed the coursework or demonstrate competencies in the subject area may be approved for a waiver of the required coursework by the faculty instructor and Program Director.

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Fall</td>
<td>EPI 203 – Epidemiologic Methods</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS 201C - Social and Behavioral Science Approaches in Global Health</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX – Advanced Concepts in Global Health</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX – Proposal Writing &amp; Doctoral Seminar</td>
<td>1 (2 hours/week)</td>
</tr>
<tr>
<td>2016</td>
<td>Winter</td>
<td>EPI 207- Epidemiologic Methods II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS 202A - Communicable Diseases of Global Importance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOSTAT 208- Biostatistical Methods for Clinical Research II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX Research Rotation #1</td>
<td>1</td>
</tr>
<tr>
<td>Year</td>
<td>Quarter</td>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>2016</td>
<td>Spring</td>
<td>BIOSTAT 209 - Biostatistical Methods for Clinical Research III</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX Health Systems Strengthening</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX Research Rotation #2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS 205 - Global Health Policy—Transforming Evidence Into Action</td>
<td>2</td>
</tr>
<tr>
<td>2016</td>
<td>Fall</td>
<td>GHS 201B - Global Health Economics</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHS XXX Research Rotation #3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctoral Seminar #2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective #1</td>
<td>3</td>
</tr>
<tr>
<td>2017</td>
<td>Winter</td>
<td>GHS 202B – Sociocultural and Behavioral Determinants of Health</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctoral Seminar #3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective #2</td>
<td>2</td>
</tr>
<tr>
<td>2017</td>
<td>Spring</td>
<td>EPI 265 - Research Methods in Chronic Disease Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualifying Examinations Preparation &amp; Oral Exam</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2017</td>
<td>Summer</td>
<td>Dissertation Proposal Approval</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2017</td>
<td>Fall</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2018</td>
<td>Winter</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2018</td>
<td>Spring</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2018</td>
<td>Fall</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2019</td>
<td>Winter</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
<tr>
<td>2019</td>
<td>Spring</td>
<td>Data Collection and Writing</td>
<td>Individually determined</td>
</tr>
</tbody>
</table>

**Total number of units** 45 units

### 2.12 Normative Time for Matriculation to Degree

Normative time to degree for GHS PhD students is expected to be four years, but will ultimately depend on the background, preparation, and proposed research topic of the individual student. The pre-candidacy period will include two years of coursework; students are expected to advance to candidacy in spring quarter of the second year; dissertation research and writing will occur in years three and four.
SECTION 3. PROJECTED NEED

3.1 Student Demand for the Program

According to an unpublished web-based survey conducted by the UC Global Health Institute (UCGHI), there has been exponential growth in the number of global health academic programs nationally between 2001 and 2011.

Additionally, a May 2014 report in the New England Journal of Medicine by Michael Merson indicates that approximately 250 North American universities have global health education offerings at the undergraduate and graduate levels. The Association of Schools and Programs of Public Health has developed a global health competency model and 20% of US medical specialty residency programs have global health activities. This immense growth in global health offerings at all levels of academic and professional education suggests the need for more research trained faculty and thus a unique role for UCSF’s proposed program.

Another UCGHI sponsored report, The Importance of the Global Health Sector in California: An Evaluation of the Economic Impact, published in 2009, suggests that the time is right for a PhD program in global health at UCSF. Interest in global health is intensifying among university leaders, faculty members, and students at the same time that “borderless” health issues and rapidly globalizing societies are crying out for greater academic global health involvement. Important reasons for including global health programs in academic environments include: 1) student interest - about 75% of students state that they are interested in acquiring knowledge germane to global health; 2) societal responsibility of universities to improve the human condition which in turn offers scientific opportunities for US investigators to extend their training and research across different disciplines; 3) programs in global health position universities to contribute and compete in our globalized world; 4) investments in global health research may benefit the US as well as lower and middle income countries by influencing the quality and costs of health care.
We propose an enrollment of four new students every other year until demand and funding allow us to increase enrollment. We expect no difficulty in finding high quality applicants to fill a class of this size, as most top-rated programs in global health turn away strong applicants. The following are tables of peer institutions, noting the number of applications received each year and the number of students admitted. It is clear from this information that there are many more students interested in PhD programs in Global Health or in PhDs in Public Health with a global health focus than there are available openings. Additionally, we present profiles of universities offering global health tracks; characteristics of the top five universities with PhD programs in public health; and, the characteristics of the California public and private universities offering public health programs. Since there are only three programs in the US offering PhDs in global health, all with foci very different from our proposed areas of concentration, we believe this is the time for UCSF to offer such a program.

### Profile at Peer Institutions Offering the PhD in Global Health

<table>
<thead>
<tr>
<th>Institution and Year Initiated</th>
<th>Applications</th>
<th>Students Admitted</th>
<th>Desired Employment Areas</th>
<th>Areas of Training</th>
<th>Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona State University - 2005</td>
<td>12-14</td>
<td>5-6</td>
<td>50% academia; 50% NGOs</td>
<td>Complex adaptive systems science; Health &amp; culture; Urbanism</td>
<td>Faculty grants</td>
</tr>
<tr>
<td>University of Washington - 2012</td>
<td>70-100</td>
<td>7</td>
<td>No graduates yet; preparation is for academia</td>
<td>Global health metrics; Implementation Science</td>
<td>Research and teaching assistantships for both domestic and international students</td>
</tr>
<tr>
<td>University of Florida - Gainesville - 2010</td>
<td>18-20</td>
<td>5-7</td>
<td>Academia incl. research &amp; labs; federal agencies</td>
<td>Global Health and the Environment; One Health (med, vet, &amp; environment)</td>
<td>Research and teaching assistantships</td>
</tr>
</tbody>
</table>

### Profile of Universities offering Global or International Health Tracks

<table>
<thead>
<tr>
<th>Institution and Year Initiated</th>
<th>Applications</th>
<th>Students Admitted</th>
<th>Desired Employment Areas</th>
<th>Areas of Training</th>
<th>Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duke University</td>
<td>Scholars 6-8 Certificate-NA</td>
<td>Scholars-2 Certificate-8</td>
<td>Environmental; public policy; clinical psychology; civil engineering</td>
<td>Doctoral Scholars Doctoral Certificate in various areas of faculty research</td>
<td>Duke GH Institute provides 50% of tuition &amp; stipend to Doctoral Scholars. Doctoral Certificate program funded by competitive grants</td>
</tr>
<tr>
<td>UCSD/SDSU</td>
<td>40</td>
<td>Accept 4-7; enroll 1-2</td>
<td>Bilateral federal organizations (CDC); academia; NGOs; US community health work</td>
<td>Epidemiology, Health Behavior, Global Health</td>
<td>Mentors provide 2 years of funding to all students; teaching assistantships available</td>
</tr>
<tr>
<td>Institution</td>
<td>Areas of Training</td>
<td>Student Body &amp; Financial Aid</td>
<td>Admission Requirements</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Columbia</td>
<td>• Biostatistics</td>
<td>Doctoral students comprise 14% of their 1,293 student body. Scholarships, fellowships, and grants are available.</td>
<td>Most applicants have a 3.3 or &gt;GPA; GREs are required.</td>
<td>Population and Family Health</td>
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</tr>
<tr>
<td></td>
<td>• Environmental Health Sciences</td>
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<tr>
<td></td>
<td>• Epidemiology</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Health Policy and Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Socio-medical Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvard</td>
<td>Division of Biological Sciences</td>
<td>Students in PhD program have 5 years of tuition &amp; stipend support</td>
<td>Bachelor’s degree as well as competence in coursework matching area of training. GReS are required.</td>
<td>Offers a Doctor of Science and a DrPH as well as the PhD, under the aegis of the Harvard Graduate School of Arts and Sciences. New DrPH in Global Health initiated in July 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Biostatistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Health Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johns Hopkins</td>
<td>Departments of:</td>
<td>Limited number of full tuition scholarships; however, after 6 full terms all students receive 75% tuition scholarships</td>
<td>GRE required; some fields require BS or MS in biostats, stats or closely related field</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Biochemistry and Molecular Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Biostatistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Environmental Health Sciences</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Epidemiology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Health Policy and Management</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Molecular Microbiology and Immunology
- Population, Family and Reproductive Health
- Graduate Training Programs in Clinical Investigation

**UNC-Chapel Hill**
- Biostatistics
- Environmental Science and Engineering
- Epidemiology
- Health Behavior
- Maternal and Child Health
- Nutrition
- Health policy and management
- Public health Leadership

Limited number of full-tuition scholarships
Bachelor’s degree in a related field and acceptable GREs.
Graduate Certificate in Global Health prepares residential graduate students to work in changing environments and with diverse populations

**U of Michigan**
- Biostatistics
- Epidemiology
- Environmental Health Sciences/Toxicology
- Health Behavior and Health Education
- Health Services Organization and Policy

Limited funding for tuition and stipends.
No required courses or prerequisites for most programs with exceptions for Environmental Health Sciences and Biostatistics. Require GREs and GPA>3.0

*US News and World Report ranking of top 5 public health PhD programs

**Profile of California Public and Private Universities with Public Health/Global Health Offerings**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Public/Global Health Offerings</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Berkeley School of Public Health</td>
<td>PhD tracks:  - Biostatistics  - Environmental Health Sciences  - Epidemiology  - Health Services &amp; Policy Analysis  - Infectious Diseases &amp; Immunology</td>
<td>The Global Health Specialty Area has been suspended until further notice.</td>
</tr>
<tr>
<td>University of California, Los Angeles Fielding School of Public Health</td>
<td>PhD tracks:  - Biostatistics  - Community Health Sciences  - Environmental Health Sciences  - Epidemiology  - Health Policy and Management.</td>
<td></td>
</tr>
<tr>
<td>University of California, Davis School of Public Health</td>
<td>PhD tracks:  - Epidemiology  - Biostatistics  - Pharmacology &amp; Toxicology</td>
<td></td>
</tr>
<tr>
<td>Stanford University Center for Innovation in Global Health</td>
<td>The Center for Innovation in Global Health (CIGH) aims to provide undergraduate students with opportunities to achieve a well-rounded experience that incorporates an understanding of the global environment</td>
<td>No PhD programs in Public or Global Health</td>
</tr>
<tr>
<td>University of Southern California</td>
<td>- BS in Global Health (undergraduate)  - MS in Global Medicine:  - MPH in Global Health Leadership</td>
<td>No PhD programs in Public or Global Health</td>
</tr>
</tbody>
</table>
3.2 Opportunities for Placements of Graduates

As already outlined in this document, there are only three universities in the US offering a PhD in global health and five universities with global health areas of specialization at the PhD level. Additionally, there are numerous masters and DrPH programs in global health in the US that are either currently operational or being planned and thus will need doctorally prepared faculty in leadership and academic roles. Many global health education and training programs also have partnerships with LMICs and are involved in capacity building and health systems strengthening abroad. Therefore, Global Health is a growing area of academic employment in US universities and is an opportunity for the UCSF GHS graduates’ placements.

In addition to academic career paths with universities, our PhD graduates will be uniquely prepared to offer leadership and research expertise within governmental, non-governmental and bilateral/multilateral organizations focusing on global health. It is expected that our graduates would be competitive for positions within the National Institutes of Health, USAID, the Fogarty International Center of the NIH, the US Department of Defense, WHO, the Global Fund to Fight AIDS, TB, and Malaria, GAVI (Global Alliance for Vaccines and Immunization), and the Bill & Melinda Gates Foundation. In addition, our international graduates will contribute leadership capacity to their ministries of health and education, as well as international NGOs.

Lastly, the private sector offers opportunities for research. These include pharmaceutical companies; see, among others, Burroughs-Wellcome (www.bwfund.org/grant-programs/biomedical-sciences/career-awards-medical-scientists), Gilead (www.gilead.com/research/investigator-sponsored), and Pfizer (www.pfizer.com/research). These private sector multinationals have offices worldwide with many career options, including those that would use the skills of our PhD graduates. Global Health Sciences has a Private Healthcare Sector Initiative (PHSI) that works to advance the understanding of private sector healthcare provision in developing countries. Given the primacy of private healthcare services in developing countries, especially for the poorest populations, the private sector is a crucial focus area for overall health systems strengthening. Our students will have ample opportunity to study with mentors whose research involves the private healthcare sector from a global health perspective.

3.3 Importance to the Discipline

Global health is a developing field with its own developing body of disciplinary knowledge. This knowledge is transdisciplinary in scope, drawing from public health, epidemiology and biostatistics, public policy, development studies, clinical and basic sciences, economics, political science, and other social sciences. UCSF Global Health Sciences, as a leader nationally and internationally in global health, is in a unique position to build the substantive body of theoretical and research knowledge that is key to the foundation of a new discipline. The aim of this program, to prepare doctoral level graduates competent to apply research methods to explore and solve global health problems within academia, bilateral, multilateral and non-governmental organizations, will accelerate the growth of the discipline. For example, we expect our graduates to be in the vanguard of global health research and to aid in further establishing the theoretical, methodological, and substantive body of knowledge that are related to this new academic discipline.

The PhD Program in Global Health Sciences will be housed within UCSF, which will allow it to become a premier intellectual and geographical setting for researchers interested in the field.
UCSF is ranked first among public institutions and first among all institutions nationwide in research support from the National Institutes of Health (NIH) for fiscal year 2013. Acclaimed faculty within GHS are conducting investigations involving malaria, HIV/AIDS, workforce issues, women’s reproductive health, child health, environmental influences on human health, and many other areas of unique global health research.

3.4 Ways the Program Will Meet the Needs of Society

Global health activities play a vital role in the economy of California, as described in The University of California Global Health Institute (UCGHI) report titled *The Importance of the Global Health Sector in California: An Evaluation of the Economic Impact*. California has the largest economy of any US state and one of the ten largest in the world. It is known worldwide as a trendsetter and innovator, as the birthplace of biotechnology and the place where information technology was conceived and initially developed. California’s economic position in the world, the depth of its intellectual and creative resources and its geographic position on the Pacific Rim and proximity to Latin America make it a magnet for international activity, including that related to global health.

The report noted that California’s academic community is an important actor in global health in California with a total business activity of almost $4 billion in 2007. This is almost certainly an underestimation of impact since the study was restricted to research activity only and, in addition, only research supported by local, state or federal grants. The report demonstrates the economic advantages of global health endeavors to the state of California. Additionally, there are advantages that accrue to other states, universities, and bilateral-multilateral organizations as well as non-governmental organizations.

We will prepare graduates who can provide leadership to bilateral, multilateral and non-governmental organizations. Currently, many developed countries are making massive government investments in global health, but leadership in organizations at the forefront of these investments is generally limited. Our graduates will be able to provide this leadership armed with sound research methodology, strong clinical backgrounds, and theoretical understanding pertinent to work at the international, regional and national levels.

3.5 Relationship of the Program to Research and/or Professional Interests of the Faculty

As an internationally renowned health science campus, UCSF has extensive global health research projects throughout the world. The Global Research Projects database (globalprojects.ucsf.edu) highlights the work of more than 600 UCSF investigators conducting projects in more than 190 countries. These diverse research and training projects encompass the fields of policy, epidemiology, behavioral science, diagnostics and drug development, clinical trials, bench science and implementation. Key UCSF areas of focus include HIV, malaria, tuberculosis, maternal/child health, in addition to cross-cutting themes such as implementation science and economics. As a leading educational institution, UCSF is also active in training and capacity building activities world-wide.

In addition to the extensive research projects within Global Health Sciences described in section 1.2.1 above, other closely aligned programs include the following:

- The mission of the Bixby Center for Reproductive Health is to advance women’s health worldwide through research, training, policy analysis and services. The Bixby Center is
the parent organization for the Family AIDS Care and Education Services (FACES) program and the Safe Motherhood Initiative.

- **The Center for Tobacco Control Research and Education** serves as a focal point for a broad range of research, education, and public service activities for 46 faculty members in 11 departments and all four schools at UCSF, as well as colleagues at UC Berkeley and UC Merced. It is part of the UCSF Cardiovascular Research Institute and its membership is congruent with the UCSF Helen Diller Family Comprehensive Cancer Center’s Tobacco Control Program. The Center is also a WHO Collaborating Centre on Tobacco Control.

- **The Proctor Foundation** was founded in 1947 with the specific aim of eradicating trachoma worldwide. Since that time, it has evolved into a major research and teaching unit at UCSF, and its goal has broadened to the prevention and treatment of blindness worldwide. The International Programs division at Proctor has taken over the original goal of the foundation and has focused on the prevention of blindness programs in Asia and Africa.

- **The San Francisco General HIV/AIDS Division** is engaged in research and education around the world. Their partnerships address the most pressing issues of the HIV epidemic in resource limited settings. Projects span disease pathogenesis to epidemiology to treatment to models of care delivery. The HIV/AIDS Division co-directs the Makerere University–UCSF research collaboration which has enrolled over 20,000 patients on clinical studies evaluating HIV, TB, malaria, and nutrition in Uganda.

- **UCSF Gladstone Institute of Virology and Immunology** research at Gladstone is focused primarily on three primary and urgent challenges in HIV/AIDS. Development of a vaccine for those at risk of coming in contact with the virus, as well as a cure for the millions of people who are already infected are two; the third is to discover new approaches for restoring a normal lifespan to those who are HIV-positive—but dying much too early from diseases of aging.

- **UCSF Institute of Health and Aging** was the University of California's first campus-wide organized research unit (ORU) devoted to the study of health and aging issues. The original mission of the Institute was to “foster multidisciplinary, collaborative research, education, and public service in the field of health and aging.” Over the years, the mission of the Institute has continued to stress multidisciplinary, collaborative research, education, and public service. Within these three realms, the Institute has expanded its research interests to encompass more broadly issues of health, illness, and social and economic policy research that impact the aging process and the elderly population.

- **The mission of the Philip R. Lee Institute for Health Policy Studies** is to contribute to the solution of complex and challenging problems through leadership in health policy and health services research, education and training, technical assistance, and public service. The Institute conducts, synthesizes, and translates research among multiple academic disciplines and fields to provide a base of evidence to share with people who make decisions about health and health care. They focus on providing information about policy decisions that will affect people’s health and lives, from helping to improve clinical decision-making at a patient’s bedside to assessing the potential impact of state and national health legislation.

- **The Center for Health and Community at UCSF** was established to assess the challenges of the changing health care delivery environment and identify policies and interventions that will maximize the beneficial impact of the changing health care delivery system. The Center is comprised of programs and individual faculty from all UCSF Schools who have been at the cutting edge of health services and policy-related research. The Center also plays a leading role in developing innovative curricula for both
pre-clinical and clinical years that will promote an understanding of the contributions of non-biological factors to health, disease, and recovery.

3.6 Program Differentiation

As indicated previously, there is currently no PhD program in Global Health Sciences in the UC system and only very few nationally. This program will differ from existing programs that primarily fall within Public Health doctoral degrees with a global health emphasis by focusing in four specific areas:

3. Health systems concentration – workforce capacity and health systems strengthening.
4. Social and behavioral science concentration – examples include theories related to and derived from health economics, law, medical anthropology, and medical sociology.

These are areas of demonstrated strength at UCSF and reflect the active research programs of GHS faculty. Although there are other complementary programs at UCSF, such as the newly approved MS program in Health Policy and Law, offered jointly by the Institute for Health Policy (SOM) and Hastings Law School, this innovative, self-supporting program is primarily directed at health policy and law in the US rather than globally. Other health policy programs include the Health Policy masters and PhD tracks in the Department of Social and Behavioral Sciences (SON) that is also focused primarily on the US. As described, the PhD in Epidemiology and Translational Science is related to the proposed PhD and GHS doctoral students and Epi doctoral students are expected to share coursework. The PhD in Global Health Sciences, however, can be differentiated from these and other programs by its primary focus on global health and its emphasis on transdisciplinary science.
SECTION 4. FACULTY

4.1 List of Faculty Members, Ranks, and Highest Degrees

Faculty for the doctoral program will be drawn from the existing MS Graduate Group in Global Health Sciences, instructors in the MS program, GHS faculty program directors, and other UCSF faculty from the four schools who have expertise in doctoral level training and relevant research expertise. Over 50% of the inaugural GHS PhD Graduate Group has had experience serving on five or more PhD qualifying exam and/or dissertation committees; biosketches are located in Appendix 5, which includes their area of expertise. Below is a list of the Graduate Group members and the PhD areas of concentration for which they will provide advising and mentoring.

<table>
<thead>
<tr>
<th>Graduate Group Member</th>
<th>Degree</th>
<th>Rank</th>
<th>Area of Concentration for Advising/Mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams, Vincanne</td>
<td>PhD</td>
<td>Professor</td>
<td>Social &amp; Behav. Science</td>
</tr>
<tr>
<td>Adler, Nancy</td>
<td>PhD</td>
<td>Professor</td>
<td>Policy</td>
</tr>
<tr>
<td>Baltzell, Kimberly</td>
<td>PhD, MS</td>
<td>Assistant Professor</td>
<td>Clinical</td>
</tr>
<tr>
<td>Brindis, Claire</td>
<td>MPH, DrPH</td>
<td>Professor</td>
<td>Policy</td>
</tr>
<tr>
<td>Brock, Tina</td>
<td>MS, EdD</td>
<td>Professor, Associate Dean</td>
<td>Clinical</td>
</tr>
<tr>
<td>Burke, Nancy</td>
<td>MA, PhD</td>
<td>Associate Professor</td>
<td>Social &amp; Behav. Science</td>
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<tr>
<td>Coates, Thomas</td>
<td>MA, PhD</td>
<td>Professor</td>
<td>Policy, Health Systems</td>
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<td>Cohen, Craig</td>
<td>MD, PhD</td>
<td>Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Cooke, Molly</td>
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<td>Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Craik, Charles</td>
<td>MA, PhD</td>
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<td>Clinical</td>
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<tr>
<td>Dandu, Madhavi</td>
<td>MD, MPH</td>
<td>Associate Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Dawson-Rose, Carol</td>
<td>PhD, RN</td>
<td>Associate Professor</td>
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<tr>
<td>Debas, Haile</td>
<td>MD</td>
<td>Professor, Dean Emeritus, Former Chancellor</td>
<td>Clinical, Policy, Health Systems</td>
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<td>Dohan, Daniel</td>
<td>PhD</td>
<td>Professor</td>
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<td>Dow, William</td>
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<td>Professor</td>
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<td>Dworkin, Shari</td>
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<td>Social &amp; Behav. Science</td>
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<td>Enanoria, Wayne</td>
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<td>Clinical</td>
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<tr>
<td>Feachem, Sir Richard</td>
<td>FREng, DSc(Med), PhD</td>
<td>Professor</td>
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<td>Gershon, Robyn</td>
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<td>Policy</td>
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<td>Glantz, Stanton</td>
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<td>Glymour, Maria</td>
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<td>Goosby, Eric</td>
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<td>Greenspan, John</td>
<td>PhD, MRCPath, FRCPath</td>
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36
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<thead>
<tr>
<th>Name</th>
<th>Title(s)</th>
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<td>Havli, Diane</td>
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<tr>
<td>Hemmerling, Anke</td>
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<td>Academic Coordinator II</td>
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<td>Hills, Nancy</td>
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<td>Health Systems</td>
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<td>Justice, Judith</td>
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<td>Social &amp; Behav. Science</td>
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<td>Policy, Health Systems</td>
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<td>Lindan, Krysa</td>
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<td>Policy, Health Systems</td>
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<td>Macfarlane, Sarah</td>
<td>MSc, PhD, Professor</td>
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<td>Martin, Jeffrey</td>
<td>MD, MPH, Professor</td>
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<td>Max, Wendy</td>
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<td>Policy, Health Systems</td>
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<tr>
<td>Miller, Suellen</td>
<td>PhD, RN CNM, MHA, Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Montagu, Dominic</td>
<td>MBA, MPH, DrPH, Associate Professor</td>
<td>Policy, Health Systems</td>
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<tr>
<td>Partridge, Colin</td>
<td>MD, MPH, Professor</td>
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<td>Portillo, Carmen</td>
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<td>Health Systems, Social &amp; Behav.</td>
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<td>Rankin, Sally</td>
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<td>Reingold, Art</td>
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<td>Clinical, Health Systems</td>
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<tr>
<td>Reynolds, Teri Ann</td>
<td>PhD, MD, MS, Assistant Professor</td>
<td>Clinical, Health Systems</td>
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<td>Rosenthal, Philip</td>
<td>MD, Professor</td>
<td>Clinical</td>
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<tr>
<td>Rutherford, George</td>
<td>MD, MA, Professor, Vice Chair</td>
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<td>Schillinger, Dean</td>
<td>MD, Professor</td>
<td>Health Systems</td>
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<tr>
<td>Schwarcz, Sandy</td>
<td>MD, MPH, Assistant Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Sepulveda, Jaime</td>
<td>MD, MPH, MSc, DrSc, Professor</td>
<td>Clinical, Policy, Health</td>
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<tr>
<td>Seward, James</td>
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<td>Health Systems</td>
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<td>Shiboski, Caroline</td>
<td>DDS, MPH, PhD, Professor</td>
<td>Clinical</td>
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<td>Steward, Wayne</td>
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<td>Stewart, Chris</td>
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<td>Thompson, Lisa</td>
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<td>Clinical, Social &amp; Behav.</td>
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<td>Vlahov, David</td>
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<td>Volberding, Paul</td>
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<td>Whitmarsh, Ian</td>
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<td>Social &amp; Behav. Science</td>
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<td>Yamey, Gavin</td>
<td>MB BS, MRCP, MSc, Associate Professor</td>
<td>Policy, Health Systems</td>
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<tr>
<td>Zablotska, Lydia</td>
<td>MD, MPA, PhD, Associate Professor</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Ziegler, John</td>
<td>MD, MSc, Professor, Emeritus</td>
<td>Clinical, Health Systems</td>
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<tr>
<td>Zimmerman, Zachary</td>
<td>PhD, Professor</td>
<td>Social &amp; Behav. Science</td>
</tr>
</tbody>
</table>
4.2 Commitment Letters from Faculty

Commitment letters from the faculty are included in Appendix 3.

4.3 Letters of Departmental, School, and Program Support

Letters of support are included in Appendix 4.

SECTION 5. COURSES

5.1 Description of Present and Proposed New Courses

The following are present and proposed courses for the PhD in Global Health Sciences (proposed courses are indicated with an asterisk), which include currently offered GHS MS courses, new courses to be developed, and existing campus courses. Given the relatively small class size of the PhD program (four students every other year until there is sufficient funding to admit a cohort on a yearly basis) there will be minimal to no impact on existing course loads. Since the MS program is a self-supporting program, however, funding will be provided to cover the costs of the additional students in each course (estimates are included in the budget below—Section 7). The GHS PhD program will reimburse the Training in Clinical Research (TICR) program for the four courses that comprise part of the core curriculum in global health. It is expected that newly developed PhD courses and future MS electives will be open to other UCSF learners.

The transdisciplinary nature of global health requires coursework in a number of different fields and from faculty in other departments and schools. The courses described below are required for all students. For those students who have completed previous coursework in Public or Global health, waivers and substitutions may be approved in consultation with instructors and the Program Director.

EPI 203 Intermediate Epidemiology (4 units)

All clinical research regardless if classified as patient-oriented, translational, epidemiologic, comparative effectiveness, behavioral, outcomes, or health services research has individual human beings or groups of human beings as its unit of observation. As such, principles of epidemiology serve as the basic scientific methodology of all clinical research. The objectives of this course are to provide a detailed understanding of the basic principles of epidemiology including:

- diverse array of study designs, and their theoretical interrelatedness, available in clinical and epidemiologic research;
- importance of measurement;
- different types of measures of disease occurrence;
- methods to measure risk factor ("exposure") - disease ("outcome") association;
- measures of attributable risk;
- interaction;
- approaches to identify and minimize selection, measurement and confounding bias; and
• conceptual motivation for more sophisticated methods (e.g., regression or marginal structural approaches) to manage confounding, which are increasingly common tools in epidemiologic analyses. (Faculty: Department of Epidemiology and Translational Science)

GHS 201C – Social and Behavioral Science Approaches in Global Health (2 units)

This course covers research methods appropriate for addressing social and behavioral science research questions in global health. It addresses the following areas: methods health professionals use to attain competence in the socio-political-cultural environments where they work; ethnographic methods, surveys, and key informant interviews to gather relevant health data; social and behavioral science researchers’ preparation for global health field research, including moving from data to problem; and, best methods for qualitative data coding and analysis. (Faculty: Global Health Sciences)

GHS XXX – Advanced Concepts in Global Health (2 units)

This course will investigate the advanced concepts involved in global health that are related to the global health competencies in education as articulated by various groups involved in global health education. These include the global burden of disease; the social/cultural/environmental determinants of health; the divergence in health systems funding, governance, and leadership internationally and at the local and national US levels; the need for health systems management and leadership in the health workforce crisis; and health as a right and development resource. A recurring theme will emphasize the evolving structural landscape of multi-sectoral global health institutions ranging from governments, bilateral and multilateral organizations, NGOs, civil society, and the private sector. (Faculty: Global Health Sciences)

GHS XXX – Doctoral Seminar - Designing a Global Health Research Proposal (1 unit)

This course is an introduction to the process of proposal writing with particular emphasis related to problems in global health. The focus is on clinical research, defined broadly as patient-oriented, translational, epidemiologic, comparative effectiveness, behavioral, outcomes, or health services research. Students will learn the skills required to effectively critique the existing research in their area of study; how to design a study from the writing of research aims and hypotheses to the choice of appropriate research methods and the correct analytic techniques for data analysis. The product of the course is a research proposal suitable for submission to an extramural funder. (Faculty: Global Health Sciences)

EPI 207 – Epidemiologic Methods II (3 units)

Epidemiologic Methods II extends upon the topics taught in Epidemiologic Methods (EPI 203) and includes more advanced instruction in the methodologies central to epidemiologic research. Topics will include: the interrelationships between various measures of disease occurrence and association; concepts of attributable risk; interactions; practical and theoretical considerations of the most common study designs in observational research; methods of reducing confounding

5 Global Health Education Consortium and Association of Faculties of Medicine of Canada (AFMC) on globalhealthcompetencies.wikispaces.com; accessed 9-2-14.
including matching, instrumental variables and propensity scores. More advanced analytic
techniques specific to epidemiologic research are covered, including regression model building
and diagnostics and hierarchical modeling. There is also in depth instruction in quantitative bias
analysis for misclassification, selection bias, and unmeasured confounding. The main objective
of the course is to enhance a student’s ability to design and conduct unbiased and efficient
research. (Faculty: Epidemiology and Biostatistics).

GHS 202A – Communicable Diseases of Global Importance (3 units)

This course approaches the global burden of communicable disease from the perspectives of
biology, history, epidemiology, economics, prevention and control. The course broadly covers
the basic principles of infection, inflammation, and immunity, the pathogenesis and major types
of communicable infections, with a focus on HIV, malaria and tuberculosis, and the
environmental and public health control measures for major communicable diseases. Through a
combination of lectures, seminars and independent study, students will learn about
communicable diseases of global importance, concepts of surveillance and outbreak
investigations, vaccine programs, emerging infections, low-technology solutions to disease
control in the developing world, and the global/economic politics of infectious diseases. (Faculty:
Global Health Sciences)

BIOSTAT 208 – Biostatistical Methods for Clinical Research II (3 units)

This is an intermediate level course in statistics, covering multi-predictor methods, including
exploratory data analysis and multiple regression (linear and logistic). Emphasis is on the
practical and proper use of statistical methodology and its interpretation. The statistics package
STATA will be used throughout the course. At the end of the course, students will be able to:

- Describe the roles of descriptive versus inferential statistics.
- Identify characteristics of the problem to help choose the appropriate analytic technique.
- Describe techniques appropriate for handling a single outcome variable and multiple
  predictors. (Faculty: Epidemiology and Biostatistics)

BIOSTAT 209 – Biostatistical Methods for Clinical Research III (3 units)

This is the third course in the TICR/Epi Program biostatistics sequence, covering multi-predictor
variable methods in the context of survival analysis and repeated measures analysis. Emphasis
is on the practical and proper use of statistical methodology and its interpretation. The statistics
package STATA will be used throughout the course. At the end of the course, students will be
able to:

- Understand the basics of survival analysis
- Apply Cox regression in multiple predictor variable settings
- Understand the basic concepts of repeated measures data
- Apply multiple predictor regression in the repeated measures setting
- Perform and summarize the results of a data analysis. (Faculty: Epidemiology and
  Biostatistics)
According to the WHO, health systems strengthening can be defined as: 1) the process of identifying and implementing the changes in policy and practice in a country’s health system such that the country can respond better to its health and health system challenges and 2) any array of initiatives and strategies that improves one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency. Health systems strengthening involves a systematic, evidence-based approach designed to bring about significant improvement in patient and population health outcomes, efficiency and effectiveness of systems and processes of care, and social responsiveness and accountability. Building and strengthening workforce capacity, strengthening the medical supply chain, understanding systems logistics, and devising logic models to measure health systems change are included. (Faculty: Global Health Sciences)

Students will examine different policy environments using selected case studies. Using Walt and Gilson’s “policy triangle” as an organizing framework (Walt & Gilson, 1994), students will examine global health interventions ranging from disease control to eradication that represent both policy successes and failures. The role of agenda setting, stakeholders, power, advocacy, and the political process in policy development will be examined. In conjunction with the University of Sheffield UK and the Karolinska Institute, UCSF has produced the first ever comprehensive textbook on global health policy, called The Handbook of Global Health Policy, which will be published in the US in June 2014. (Faculty: Global Health Sciences)

This course explores the role of economics in global health. It reviews the history of health systems development (organization, financing) and examines health metrics and measurement of disease burden at the population level. A focus will be on the impact of social, political and economic globalization on public health and will analyze economic inequality as a determinant of social and health disparities. The course will pursue the major debates in economic development in some detail, looking at poverty reduction schemes (e.g. aid, microfinance, social entrepreneurism) and evidence-based health systems reform. (Faculty: Global Health Sciences)

Doctoral seminars are required of all students and faculty from GHS will rotate responsibility for leadership during each of the three seminars. Topics will include Global Health Ethics, History of Science and History of Global Health, Responsible Conduct of Research, student preparation for qualifying examinations, development of the dissertation proposal, writing of the dissertation, and other topics. Additionally, we will further explore the four areas identified as PhD tracks including: non-communicable/neglected/tropical/infectious diseases; global health policy; workforce and health systems strengthening; and social and behavioral sciences (health economics and behavior change). Faculty and students will take responsibility for leading the seminars. (Faculty: Global Health Sciences)
**GHS 202B – Sociocultural and Behavioral Determinants of Health (3 units)**

This course will examine social, cultural and behavioral determinants of health. Moving from social theories to behavior, the course will cover the effects of socio-economic inequality and other forms of health disparities on population health. The course will draw on faculty expertise and experience in a variety of global contexts, allowing students to compare and contrast the varied influences of cultures on health. The course will combine the methodological approaches of anthropologists, sociologists, and behavioral scientists to inform health promotion strategies and health-seeking behavior. Throughout the course we will emphasize the complex, trans-disciplinary interactions between human society and health. The content of this course examines the confluence of social and cultural factors (including globalization, the impact of social, economic, and political systems, the local and global economy, transnational organizations, culture, race, class, gender, sexuality, and North/South inequality) that lead to disparities in health both domestically and globally. (Faculty: Global Health Sciences)

**EPI 265 – Research Methods in Chronic Disease Epidemiology (3 units)**

The class will emphasize the determinants of disease incidence and the challenges of causal inference from observational studies. We will review alternative study designs, and equip students to propose alternative approaches to evaluating a research question. In particular, students will understand the trade-offs implicit in any particular chosen design relating to sample size and generalizability, measurement validity and precision, and internal validity. These considerations will be contextualized within extant literature on chronic disease epidemiology, focusing on particular 'hot-topic' theoretical debates, such as early life sensitive periods, the obesity epidemic, determinants of dementia, and cohort trends in chronic disease incidence and prevalence. (Faculty: Epidemiology and Biostatistics)

**SECTION 6. RESOURCE REQUIREMENTS**

**6.1 FTE Faculty and Staff Organizational Chart**

The GHS Education unit currently consists of an education director, three faculty program directors, and a PhD director. In addition, there are five staff members supporting the educational programs of GHS, with the expectation that a sixth staff coordinator will be hired to support the doctoral program. Teaching faculty will be recruited from current GHS units, the MS and PhD Graduate Groups, and other schools and departments at UCSF. Below is an organizational chart of the GHS Education program.
6.2 Library Acquisitions

There are no additional library acquisitions that will be necessary for the PhD program. The books and journals necessary for the graduate program are already available in the library or on-line. These materials are essential to the on-going research of many of UCSFs existing faculty and students.

6.3 Computing Costs

All students will be expected to have their own computers and internet access and will receive the standard computer support of all students. Students will be required to cover the costs of specific software (i.e. STATA, SPSS).

6.4 Equipment

Other than the normal equipment necessary for the administration of the program, no additional equipment costs are expected.

6.5 Space and Other Capital Facilities

The doctoral program will be housed in the new Mission Bay building completed in October 2014, Mission Hall: Global Health and Clinical Science. Global Health Sciences faculty and staff will be located on the third floor of the facility; state-of-the-art classrooms and common areas comprise the first floor. Also included will be a student lounge, study space, satellite office for student services, and a café.

6.6 Other Operating Costs

Since many students in the program will conduct international research, GHS will put additional effort into securing gift funds to help support student travel costs. Students will also work with their PIs and advisors to obtain funding, as well as apply for Graduate Division travel awards.
SECTION 7. GRADUATE STUDENT SUPPORT

The program plans to support each student with an annual stipend of approximately $21,500 and cover the costs of fees and non-resident tuition for a four year period (our planned normative time to degree). Financial support will include the following:

- First and second year students will be supported primarily by the Graduate Division block grant and campus fellowships, in addition to student initiated fellowship awards and possible support from ministries of health for international students. Second year students may also serve as teaching assistants in MS courses.
- Third and fourth year students will be appointed as Graduate Student Researchers and teaching assistants, nominated for appropriate campus fellowships, receive expected GHS gift funds, support from ministries of health, and support from student initiated fellowship awards. It should be noted that many students will be conducting dissertation research abroad and will be eligible for reduced fees through in absentia registration.

Future plans include applying for a T32 NIH training grant when such grants are available for global health doctoral training programs and pursuing discussions with the MSTP Program Director for a possible future slot in this program.

Below is the estimated budget for graduate student support and for the operation of the PhD program. Faculty and staff salaries and benefits, as well as non-payroll expenses will be covered by GHS funds, gifts, and fee income. As mentioned previously, appropriate compensation for courses taken in self-supporting programs are included in the budget, which has been reviewed by the UCSF Budget Office.
Graduate Studies in Global Health Sciences leading to the PhD Degree

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<th>2018-19</th>
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<td>Revenue Source</td>
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<td>Total Expenses:</td>
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<td>$612,818</td>
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SECTION 8. CHANGES IN SENATE REGULATIONS

There will be no changes in Senate regulations.
APPENDICES

Appendix 1.  Selected Elective Courses

Appendix 2.  Bylaws of the PhD Graduate Group in Global Health Sciences

Appendix 3.  Letters of Support

  Appendix 3a. UCSF Schools

  Appendix 3b. UCSF Departments and Programs

  Appendix 3c. Other UC Campuses

Appendix 4.  Faculty Biosketches
Appendix 1. Selected Elective Courses
Global Health Sciences PhD Elective Courses

GHS Courses
GHS 208 - Women's Health and Empowerment
GHS 210A - Emerging Topics in Global Health
GHS 202F - Strategic Information in Global Health
GHS 205 - Global Health Policy—Transforming Evidence Into Action

Epidemiology and Translational Science Courses
EPI 213 - Decision and Cost-effectiveness Analysis (3 units)
EPI 217 - Molecular and Genetic Epidemiology (3 units)
EPI 255 - Social Epidemiology: Concepts and Measures for Studying Social Factors and Health (3 units)
EPI 252 - Cancer Epidemiology (3 units)
EPI 222 - Health Disparities Research Methods (3 units)
EPI 210 - Epidemiology of Aging (3 units)
EPI 256 – Environmental and Occupational Epidemiology

School of Nursing – Nursing Science
294A Introduction to Human Genomics (3 units)
291 Applied Statistical Methods For Longitudinal & Hierarchical Data (4 units)
289A Advanced Quantitative Research Methods I (4 units)
289B Advanced Quantitative Research Methods II (3 units)
289.01 Advanced Methods: Meta-Analysis (2 units)
285A Qualitative Methods I (5 units)
285B Qualitative Methods II (5 units)

School of Nursing – Sociology
207 Sociology of Health & Medicine (2 - 4 units)
219 Social Policy in Aging (2 - 3 units)
245 Gender, Race & Coloniality
246 Communications & Policy Leadership (3 units)
284 Health Care Economics (4 units)
286 Gender, Sex, & Health (2 - 4 units)

Medical Anthropology
205A Introduction to Sociocultural Theory (4 units)
205B Intro to Sociocultural Theory (4 units)
224 Critical Social Science Case Conference (2 units)
225 Contemporary Issues (2 - 4 units)

History of Health Sciences
223 Medicine, Disease, and Public Health in Modern Latin America (4 units)
255 History of the Social Sciences and Population Health Policy (4 units)

Additionally, we expect that students may choose to take selected courses offered in the 12 Basic Science PhD programs (e.g., Biochemistry and Molecular Biology, Biological and Medical Informatics, Genetics, Neuroscience, Oral and Craniofacial Sciences) may be taken as electives with the approval of the faculty member in charge of the course.
Appendix 2. Bylaws of the UCSF PhD Graduate Group in Global Health Sciences
BYLAWS OF THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

PHD GRADUATE GROUP IN GLOBAL HEALTH SCIENCES

September 2014

Article I. Purpose

The primary purpose of the PhD Graduate Group in Global Health Sciences (GGGHS) is to establish and administer a graduate program of instruction and research leading to a Ph.D. degree in Global Health Sciences in conformity with the regulations of the Graduate Division of the University of California San Francisco (UCSF).

The PhD GGGHS will provide for the regular assembly of professional personnel involved in this field, assure the maintenance of high standards of performance in instruction and research within its purview, provide Program representation to the university administration and to other organizations, and provide a forum to coordinate interest in global health sciences across the UCSF campus and from other UC campuses. Consequently, the structure and operation of the PhD GGGHS shall be construed broadly enough to permit consideration of all academic aspects of global health and all other appropriate matters affecting the position and progress of the discipline on the UCSF campus.

Article II. Membership

The PhD GGGHS is responsible for the educational policies and the curricula of the academic programs it oversees, and for periodically reviewing the manner in which these policies and curricula are implemented.

Membership criteria will be:

A. Membership in the PhD Graduate Group shall be open to those UCSF and UC faculty members who have an educational, research or service interest in global health and are qualified to supervise graduate students in this area. All GGGHS members must be members of the Academic Senate.

B. A person desiring to become a member of the GGGHS shall submit an application to the Executive Committee giving his/her qualifications for membership. Documented interest and experience in global health and a curriculum vitae are required for membership consideration.

C. Nominations and applications for membership shall be reviewed and approved by the Executive Committee. If the applicant is not already a member of the UCSF or UC Academic Senate, he/she will additionally have to be approved by appointment to an appropriate academic position within UCSF or a UC Department.

D. Membership of the GGGHS shall be reviewed every second year by the Executive Committee. Inactive members may be removed from the membership by a majority vote of the Executive Committee.

E. Faculty will be notified of their status in writing annually by the Chair of the Executive Committee. Faculty wishing to have their status reconsidered may appeal to the
Executive Committee. A current membership roster shall be maintained on the program website.

F. Membership criteria include at least one of the following:
1. Willingness and adequate funding to support the research activities of graduate students.
2. Willingness, expertise and experience in serving on graduate student qualifying exams and dissertation committees.
3. Willingness and expertise to teach a course, seminar, or serve as guest lecturer.
4. The ability to accommodate graduate student research projects and experiential learning activities internationally and locally.
5. Attendance and participation in GGGHS retreats or meetings.
6. Willingness to serve in group committee functions.

Article III. Committees and Officers

A. The PhD GGGHS and its activities shall be administered by an Executive Committee consisting of a Chair and four other members. Members of the Executive Committee shall be elected by a majority vote of the Graduate Group, are elected for two-year terms, with the exception of the Chair who will remain on the Committee for the duration of the time necessary to complete the three-year term of that office. Committee members may be re-elected or reappointed. Ex-officio members of the Executive Committee will include the PhD Program Director (voting, ex officio), the GHS Education Director, and the MS Program Director. Individual vacancies on the Executive Committee shall be filled by appointment by the Chair.

B. The principal responsibilities of the Executive Committee are:
1. To nominate from among the Executive Committee members a Chair and a Co-Chair.
2. To represent the PhD GGGHS in official matters pertaining to the Graduate Group, both within and outside of the University.
3. To carry on the activities and services of the GGGHS and its academic programs, and encourage further development of the Group.
4. To review, nominate or remove members in the GGGHS in order to maintain an academically active, intellectually stimulating and productive Graduate Group, and to maintain broad and active communications with the GGGHS relevant to the field of Global Health.
5. To establish and maintain liaison with the MS GHS Graduate Group and programs interested in global health at UCSF and on other campuses of the University of California system.
6. To review the PhD academic program and when changes seem desirable, to recommend these to the membership and the Admissions and Curriculum Committees.
7. Appoint such additional standing committee(s) or ad hoc committee(s) as it deems necessary to properly administer the activities of the Group.

C. The Admissions Committee shall consist of five members: four faculty members and one graduate student (or recent graduate) appointed by the Executive Committee. The PhD Program Director will be a voting ex-officio member. Initially, appointments will be for one year. Thereafter, individual appointments will be staggered two-year appointments so that 50% of the members are replaced biannually, except for the student representative, who will be a one-year appointment. Members may be reappointed or re-elected. The Admission Committee will have responsibility for the recruitment plan,
admissions requirements and process, reviewing applications, and selecting candidates for the program.

D. The Curriculum Committee shall consist of five members: four faculty members and one graduate student (or recent graduate) appointed by the Executive Committee. The PhD Program Director and the MS Program Director will be voting ex-officio members. Initially, appointments will be for one year. Thereafter, individual appointments will be staggered two-year appointments so that 50% of the members are replaced biannually, except for the student representative, which will be a one-year appointment. Members may be reappointed or re-elected. The Curriculum Committee will be responsible for the doctoral curriculum, including course content, changes and enhancements to courses, evaluation of courses, and recommending course instructors.

E. New Committees may be proposed by the Executive Committee with majority approval of the PhD GGGHS membership.

Article IV. Meetings

A. The Chair shall call such meetings of the GGGHS as are deemed necessary or desirable by him/her or by the Executive Committee. He/she shall call at least one meeting per year.

B. The Chair shall call a special meeting of the GGGHS at any time he/she is so requested by written notice of five or more members of the GGGHS.

C. At meetings, 30% of the GGGHS membership shall constitute a quorum.

Article V. Amendments

Changes in these By-laws shall be made by approval of both a majority of the Executive Committee and at least two-thirds of the GGGHS membership, either by mail vote or at a meeting, provided that notice of such proposed changes shall have been sent to the members at least one week prior to the date of voting.
Appendix 3. Letters of Support
Appendix 3a. UCSF Schools
Dear Council Members,

I have reviewed the program proposal for the proposed PhD in Global Health Sciences (GHS) and as the Associate Dean for Global Health in the School of Pharmacy, I am most happy to lend my strong support to this new UCSF PhD. Global health is a growing area of interest within our academic programs and students are eager to pursue more in-depth study in global health. Some of our PharmD students will undoubtedly be interested in pursuing their PhD in global health sciences either while enrolled in our program or after graduation. Additionally, I believe that some of students, who might not choose to pursue a PhD would benefit from coursework within the new GHS PhD program since we are unable to offer the type of coursework offered by GHS. We in turn have been working with GHS on various educational programs in the University of Namibia and in providing classes on the medication supply chain and other medicines-related topics. Thus, the proposed program would benefit not only the School of Pharmacy but also Global Health Sciences in its ability to provide for bi-directional learning.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program’s design that includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths assures the academic success of the program. The program developers have made the wise decision to limit the number of students to four admitted every other year thus assuring adequate financial resources to fund all students.

Therefore, I am most happy to give support for this new and innovative doctoral program and I look forward to working with the GHS faculty in assisting in the further development of coursework and planning for this exciting new program.

Sincerely,

Tina Penick Brock, EdD
Professor of Clinical Pharmacy and
Associate Dean for Global Health & Educational Innovations
April 30, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Council Members,

I enthusiastically write to support this proposal for the new degree, Doctor of Philosophy (PhD) in Global Health Sciences at the University of California, San Francisco. Having served on the Global Health Sciences Education Council I am well aware of the proposed PhD program. I commend the initiators of this new PhD program for their interdisciplinary endeavor that will offer new course work in global health, while also providing students access to coursework and professional colleagues in a variety of graduate programs.

I am currently the Associate Dean for Global Health in the School of the Dentistry and am well aware of the growing interest on the part of our dental students and faculty in global health. For example, we have held well attended Global Health and Dentistry conferences every year for the past 4 years—an indication of this growing interest.

The proposed PhD program articulates well with the UCSF integrated DDS/PhD program, a highly competitive program that allows qualified students admission to both the PhD and DDS programs. Some of our students in past years have done joint DDS/PhD programs in dentistry and epidemiology as well as other fields; I believe that some of our students will apply for our funding to complete the DDS/PhD in Global Health Sciences.

In closing, I believe this PhD will further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities at UCSF.

Sincerely,

John Greenspan
April 28, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Council Members,

I have reviewed the program proposal for the proposed PhD in Global Health Sciences (GHS). As the Associate Dean and Graduate Program Director for the School of Nursing’s PhD Program, I am most happy to lend my strong support to this new UCSF PhD proposal. Many of our doctoral students in Nursing conduct research that is oriented towards global health, sometimes with data collection in international settings. The School of Nursing has instituted a global health minor for our masters’ and doctoral students. It is the most popular minor in the school, which is certainly an indication of the strong interest our students have in global health. Our doctoral students would benefit from coursework within the new GHS PhD program since we are unable to offer as broad a choice of global health coursework as is offered by GHS. Likewise, our qualitative methods courses, taught in tandem with the Medical Sociology faculty in Social and Behavioral Sciences, would be most useful to GHS PhD students who will need to develop depth in qualitative methods. Thus, the proposed program would benefit not only the School of Nursing but also Global Health Sciences in its ability to provide for bi-directional learning.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program’s design includes four tracks representing the areas in which UCSF Department of Global Health Sciences already has major strengths. This assures the academic success of the program. The program developers have made the wise decision to limit the number of students enrolled by planning to admit four students every other year, thus assuring adequate resources to financially support all students.

Although there was originally some concern that a PhD in Global Health Sciences would be competitive to our PhD program in Nursing,
after reviewing the proposal I do not believe the two programs would compete with each other, but rather the two programs would be complementary for the reasons outlined above. Therefore, I enthusiastically support this new and innovative doctoral program! I look forward to working with the GHS faculty assisting in the further development of coursework and planning for this exciting new program.

Sincerely,

Judy Martin-Holland, PhD, MPA, RN, CNS, FNP, FAAN
Associate Dean for Academic Programs,
Graduate Program Director,
Interim Director, Masters’ Entry Program in Nursing
Appendix 3b. UCSF Departments and Programs
Dear Molly and Sally:

We are happy to support your proposal for a new PhD program in Global Health Sciences at UCSF. Your program promises to apply rigorous scientific approaches to the critical problem of global health, and we are excited by the opportunities for collaboration with students in the basic science programs. We look forward to working with you to make this program a success.

Sincerely,

David Morgan, Tetrad Graduate Program, for
Patsy Babbitt, Biological and Medical Informatics Program
Charles Craik, Chemistry and Chemical Biology Program
Jason Cyster, Biomedical Sciences Program
Pamela Den Besten and Ralph Marcucio, Oral and Craniofacial Sciences Program
Matt Jacobson, Biophysics Graduate Program
Deanna Kroetz, Pharmaceutical Sciences and Pharmocogenomics Program
Sarah Nelson, Bioengineering Graduate Program
Roger Nicoll, Neuroscience Graduate Program
Jeremy Reiter, Developmental and Stem Cell Biology Program
April 30, 2014

UCSF Graduate Council  
Academic Senate Office  
UCSF Box 0764, MUE Room 253  
San Francisco, CA 94143  

Dear Graduate Council Members,

We are writing as the Directors of the Masters Program in Global Health Sciences (GHS) at UCSF to enthusiastically support this proposal for the new degree, Doctor of Philosophy (PhD) in Global Health at the University of California, San Francisco. Having discussed the plans for this new program with Drs. Cooke and Rankin, we look forward to the opportunity for the masters and new doctoral program to work together on selected coursework and research projects. The MS program is prepared to integrate doctoral students into our masters coursework with recognition of the need to compensate faculty for the extra time required for doctoral students. We are particularly happy that doctoral students will have the opportunity to develop teaching skills through their work as graduate student instructors in the GHS masters program. We foresee significant collaboration between the doctoral and masters students in the area of the masters students capstone projects as these may evolve from and be related to doctoral dissertation work.

We are enthusiastic about the benefits and opportunities generated by identifying coursework that can be shared across our graduate programs. Many of our masters students have an interest in advanced epidemiology and biostatistics and the proposed program provides educational opportunities for our masters students to build depth in these areas by participating in such coursework. Additionally, many of our masters students have expressed interest in further education in global health that would prepare them for academic careers and the proposed doctoral program offers an opportunity for them to enroll in a program that would be tailored to their needs.

We believe this PhD will further advance our working relationships across GHS educational programs and help us embrace interprofessional collaboration and educational activities. Global Health Sciences is by nature interprofessional and the broad spectrum of faculty already teaching in the masters program will be further enhanced by new faculty who will join the PhD program. The uniqueness of global health is its transdisciplinary approach to building sustainable solutions to improve health and eliminate disease.

The development of the PhD in Global Health is timely and helps UCSF address the growing need for qualified faculty in global health and investigators who can contribute to the body of research related to global health. We sincerely hope
this proposal for the PhD in Global Health will be favorably reviewed and we offer our enthusiastic support for the development of this program. We look forward to continued collaboration with this degree program in the future.

Sincerely,

[Signature]

Madhavi Dantu, MD, MPH
Director, UCSF MS in Global Health
Associate Professor, UCSF School of Medicine

[Signature]

Kimberly Baltzell, RN, MS, PhD
Associate Director, UCSF MS in Global Health
Assistant Adjunct Professor, UCSF Department of Family Health Care Nursing
August 28, 2014

Dear UCSF Graduate Council:

As the chair of the Global Health Sciences (GHS) Masters of Sciences (MS) Graduate Group, and Professor in the Department of Obstetrics, Gynecology & Reproductive Sciences, I write to enthusiastically endorse the proposal for a doctoral program in Global Health Sciences. I also wish to briefly describe several programs in which I am involved that are directly related to the future education, training, and funding opportunities for doctoral students enrolled in the program.

I am Co-Principal Investigator for the University of California Global Health Institute (UCGHI) GloCal Health Fellowship, a career development fellowship sponsored by the National Institutes of Health (NIH) Fogarty International Center. Students enrolled in the GHS PhD, as well as graduates of the program, would be highly competitive for this research fellowship. The purpose of this program is to support an 11-month, mentored research fellowship for existing and aspiring investigators who are interested in studying diseases and conditions in developing countries. The UCGHI GloCal Health Fellowship is designed for doctoral and professional students, post-doctoral fellows, foreign post-doctoral fellows from participating international sites, and junior faculty.

In 1994, Dr. Elizabeth Bukusi at the Kenya Medical Research Institute (KEMRI) and I established the Research Care and Training Program (RCTP), a collaboration with projects in Nairobi and the Nyanza Region of Kenya. The goal of the program is to conduct research and enhance local capacity to conduct biomedical research through training and infrastructure development. I am also the Founding Director of the Family AIDS Care & Education Services (FACES), a CDC/PEP FAR-funded HIV/AIDS care, treatment and prevention program in the Nyanza Region of Kenya and Nairobi. As part of FACES, I developed the Student Training Elective Program, which has allowed over 180 students, residents and post-doctoral fellows to do clinical and research electives at FACES sites. FACES serves as a foundation for 20 different clinical and implementation science research projects, many of which have included trainees. These sites would also be appropriate for training of future global health doctoral students.

Since the inception of the highly successful GHS Master’s Degree, our faculty members have made meaningful contributions to this program through teaching, advising and mentoring, and the employment of graduates. A strong cadre of doctoral-level global health students will enhance our institution’s ongoing and future success as leaders in global health. The Graduate Group will be actively involved in their training and support.

Thank you for your consideration of the GHS PhD proposal.

Sincerely,

Craig R. Cohen, M.D., M.P.H.
April 30, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253 San Francisco, CA 94143

Dear Council Members,

I am pleased to include this letter of support given that I am indeed enthusiastic about the proposal for the new degree, Doctor of Philosophy (Ph.D.) in Global Health Sciences at the University of California, San Francisco. This degree is an interdisciplinary and inter-professional endeavor that will offer new coursework in the diverse areas that comprise the rapidly growing field of global health. As a member of the faculty teaching in GHS Master’s program (since its inception), I am well aware of the depth and breadth of interest in global health on the part of our Masters’ students and I am quite sure there is an equally well prepared cadre of doctoral applicants waiting to apply for the UCSF Ph.D. program. I currently teach a course titled *Sociocultural and Behavioral Determinants of Health* in the Global Health Sciences MS Program and I look forward to adapting this course for doctoral students. I also look forward to integrating doctoral students from this new program in my own program of research.

I am particularly enthusiastic about the benefits and opportunities that are generated by identifying coursework that can be shared across graduate programs. Many of the Medical Sociology doctoral students in the Department of Social and Behavioral Sciences in the School of Nursing will undoubtedly choose to do some of the coursework in the proposed doctoral program because of their own interest in Medical Sociology and Global Health. We will look forward to integrating doctoral students in theory and methods courses if they wish to gain expertise in these fields through our highly ranked program and well regarded courses. I believe this PhD will further advance our working relationship across programs and help us embrace interprofessional collaboration and educational activities. Additionally, other opportunities for collaboration between the two programs (GHS PhD and Medical Sociology) are plentiful as many of our doctoral students are involved in research related to global health issues and would benefit from further alloying themselves with research opportunities in GHS.

Another very important aspect of this proposal that is worth highlighting is the way in which it embraces an integration of UCSF expertise in the health, social, and biological sciences. This is key to launching a successful Ph.D. program in global health sciences. The program design that includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths helps to assure the academic success of the program. The ongoing programs of research in which GHS has traction are important areas for doctoral level dissertations. Additionally, the program directors at GHS have made the wise decision to limit the number of students to four to five admitted every other year thus assuring adequate financial resources to fund all students.

I consider the GHS MS program an incredibly bright light at UCSF and I urge you to seriously consider this proposal for the PhD in Global Health Sciences. I sincerely hope that the proposal will be favorably reviewed and I offer my highest level of support for the development of this program. I look forward to continued collaboration with Global Health Sciences both in the MS and within this new and innovative degree program in the future.

Sincere and best regards,
Shari Dworkin, Ph.D., M.S.
Professor
September 11, 2014

To the members of the UCSF Graduate Council:

As the Director of the Global Heath Group – one of UCSF Global Health Sciences’ (GHS) flagship research groups – and on behalf of the faculty leads of our three signature initiatives, I write to enthusiastically endorse GHS’ proposal for a doctoral program in Global Health Sciences. We look forward to engaging with future doctoral candidates, as graduate student researchers, and ideally as future members of our team.

The Global Health Group is an “action tank,” dedicated to identifying, elaborating and translating innovative solutions to major global health challenges into large-scale action, to advance health and save lives in low- and middle-income countries. We work across the spectrum, from conducting research and policy analysis, to building consensus, to catalyzing the development and implementation of pioneering programs in collaborating countries. Our activities are focused under three core initiatives: the Malaria Elimination Initiative, which provides guidance and support to 34 countries to achieve their elimination goals, the Private Sector Healthcare Initiative, which seeks to understand and strengthen delivery of care by formal and informal private sector actors, and the Evidence to Policy Initiative, which synthesizes best evidence to inform the policies and decisions of donor and country leaders to improve financing and delivery of care.

Since our founding in 2007 we have raised over $53M in sponsored research funding, primarily from non-federal sources including the Bill & Melinda Gates Foundation, ExxonMobil, the Novartis Foundation for Sustainable Development, the Rockefeller Foundation, and recently a $2M contract from the US Navy. Additional 3-year funding is anticipated later this fall.

Since the inception of the highly successful GHS Master’s Degree program in 2008, our faculty have made meaningful contributions to the program through teaching, advising and mentoring. Our faculty and research staff regularly sponsor and mentor 6-8 students per year during their field work and capstone projects, and we have been pleased to hire 13 students to date, both during their program and full time after their graduation. Our ongoing success will be enhanced by a strong cadre of doctoral-level global health students. We look forward to being actively involved in their recruitment, and as funding and alignment of research interests permit, support their training and longer term career development.

Thank you for your consideration of GHS’ PhD proposal. Please don’t hesitate to contact me if I can provide any additional background.

With best regards,

Sir Richard Feachem, KBE, FREng, DSc(Med), PhD
Director, The Global Health Group
Professor of Global Health
May 2, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253 San Francisco, CA 94143

Dear Council Members,

I write to express my enthusiastic support this proposal for the new degree, Doctor of Philosophy (PhD) in Global Health Sciences here at the University of California, San Francisco. As director of the Epidemiology & Translational Science PhD program, I anticipate the new Global Health PhD program will strengthen the university, enrich our existing training, and complement the Epidemiology & Translational Science PhD. The global health PhD degree is an interdisciplinary and interprofessional endeavor that will offer new coursework in the diverse areas that comprise the important and growing field of global health. Doctoral students in the new PhD program in Global Health will take epidemiology and biostatistics courses with our Epi students and likewise our Epi students will avail themselves of advanced coursework in Global Health Sciences. Additionally, there may be opportunities for our faculty to obtain some salary support if they develop and teach courses in the new program.

I am particularly enthusiastic about the benefits and opportunities generated by identifying coursework that can be shared across graduate programs. Many doctoral students in various UCSF PhD program have an interest in global health and the proposed program provides educational opportunities for all doctoral students at UCSF who are interested in enrolling in courses in these subject areas. I believe this PhD will further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities. Additionally, opportunities for collaboration between the two programs (GHS PhD and Epi PhD) are manifold as many of our doctoral students are involved in research related to global health problems. Epidemiologic tools are often the cornerstone of global health research, so the programs are conceptually synergistic. Creating a rich intellectual community for students to engage and learn from one another is a key goal for our training activities, and I anticipate the GHS PhD program, by attracting top notch students with deep and serious commitments to improving global health, will foster that goal.

The program’s design includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths; building on these existing assets assures the academic success of the program. The ongoing programs of research in which GHS has traction are important areas for doctoral level dissertations. Additionally, the program directors have considered how to handle each year’s cohort size in a way to assure adequate financial resources to fund all students.

I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support for the development of this program. I look forward to continued collaboration with this degree program in the future.

Sincerely,

Dr. M. Maria Glymour
Associate Professor and Program Director,
PhD Program in Epidemiology and Translational Science
May 20, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253 San Francisco, CA 94143

Dear Council Members,

I write to offer my enthusiastic support this proposal for the new degree, Doctor of Philosophy (PhD) in Global Health Sciences at the University of California, San Francisco. This degree is an interdisciplinary and interprofessional endeavor that will offer new coursework and perspectives in the diverse areas that comprise the new and growing field of global health.

As the Chair of Epidemiology and Biostatistics I am aware of the potential complementarity of our two programs. We offer advanced epidemiology and biostatistics courses and training in population health important for your students in the new PhD program in Global Health; our graduate students will be able to avail themselves of advanced coursework in Global Health Sciences. I am particularly interested in supporting new coursework that addresses complex global and population health problems that can be shared by both graduate programs. Many doctoral students in various UCSF PhD program have an interest in global health and the proposed program provides educational opportunities for all doctoral students at UCSF who are interested in enrolling in courses in these subject areas. I believe this PhD will further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities as well as training in transdisciplinary approaches to new knowledge generation. Already opportunities for collaboration between the two programs (GHS PhD and Epidemiology & Translational Science PhD) are manifold as many of our doctoral students are involved in research related to global health problems.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program's design that includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths assures the academic success of the program. The ongoing programs of research in which GHS has traction are important areas for doctoral level dissertations. Additionally, the program directors have made the wise decision to limit the number of students to four to five admitted every other year thus assuring adequate financial resources to fund all students.

I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support for the development of this program. I look forward to continued collaboration with this degree program in the future.

Sincerely,

Robert A. Hiatt, MD, PhD
Professor and Chair Department of Epidemiology and Biostatistics
May 1, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Colleagues:

I am writing in strong support of the proposed doctoral program in Global Health. I have reviewed the proposal, and it is not only well conceptualized but also fills an important and emerging niche in American academia. This degree is a transdisciplinary endeavor that will offer new coursework in global health, while also providing students access to coursework and professional colleagues in a variety of graduate programs, including Epidemiology and Biostatistics, Medical Sociology and Anthropology, Global Health Sciences, as well as a multitude of courses in other departments and schools. Thus, the program as designed will allow students to choose a curriculum tailored to their needs. As one of the core faculty in the M.S. program in Global Health, I currently teach Foundations of Global Health (GH 201A) and Global Strategic Information (GH 202F), and I look forward to the extension of this course to Ph.D. students who will add depth and breadth through their own experiences as clinicians and global health practitioners to the masters students.

The goals of the Ph.D. in Global Health are in line with the Ph.D. in Epidemiology and Biostatistics, my home department, and I am particularly enthusiastic about the benefits and opportunities generated by identifying coursework that can be shared across our graduate programs. The Ph.D. in Global Health draws on the existing partnership between Global Health Sciences and the Epidemiology and Biostatistics Department, and this new program will provide GHS students with the necessary skills to become leaders and researchers in global health sciences from both an epidemiological and biostatistical perspective and from the more interprofessional and transdisciplinary global health standpoint.

I believe this Ph.D. will advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities. The development of the Ph.D. in Global Health is timely and helps UCSF address the growing need for qualified faculty in global health programs and investigators who can contribute to the body of research related to global health. I am particularly pleased that this Ph.D. program will be the first in the state of California and also one of the first in the United States.

Sincerely yours,

George W. Rutherford, M.D., A.M.
Salvatore Pablo Lucia Professor of Epidemiology, Preventive Medicine, Pediatrics and History
Head, Division of Infectious Disease Epidemiology
Vice Chair, Department of Epidemiology and Biostatistics
Director, Prevention and Public Health Group, Global Health Sciences
Dear Council Members:

I have reviewed the program proposal for the proposed PhD in Global Health Sciences, and as the Director for the Doctoral Program in Sociology, I am most happy to lend my strong support to this new UCSF PhD program. Many of our doctoral students in Sociology conduct research that is oriented towards global health, often involving data collection in international settings. I believe that some of these students would benefit from coursework in the new PhD program. Likewise, some of our courses would be of interest to students enrolled in the Global Health Sciences program.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program’s design that includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths assures the academic success of the program. The ongoing programs of research in which GHS has traction are important areas for doctoral level dissertations. Additionally, the program directors have made the wise decision to limit the number of students to four to five admitted every other year thus assuring adequate financial resources to fund all students.

Given the possibilities for collaboration at the faculty and student levels between a GHS PhD program and the Sociology program, and the important niche that this new and innovative program would fill, I am most happy to give support for a PhD program in Global Health Sciences and I look forward to working with the GHS faculty in assisting in the further development of coursework and planning for this exciting new program.

Sincerely,

Janet K. Shim, PhD, MPP
Associate Professor of Sociology
Director, Doctoral Program in Sociology

April 23, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143
Dear Council Members,

I write to support the proposal for the new degree, Doctor of Philosophy (PhD) in Global Health Sciences at the University of California, San Francisco. As the Program Director of the UCSF side of the joint UCSF-UCBerkeley PhD Program in Medical Anthropology I commend the initiators of this new PhD program for their interdisciplinary endeavors that will offer new course work in global health, while also providing students access to coursework and professional colleagues in a variety of graduate programs, such as Epidemiology, Medical Anthropology, Medical Sociology, Nursing, and Biomedical Sciences by allowing them to choose a curriculum tailored to their needs.

As the program director of the Medical Anthropology program, I am aware that faculty from my group, myself included, have been heavily involved in the MS in Global Health Sciences and they have worked with faculty at Global Health Sciences to develop clinical and teaching programs for GHS students. Additionally, we have provided faculty to the masters program in global health sciences and will continue to do this; we look forward to the inclusion of doctoral students in the appropriate courses. We do not foresee that our PhD program will be threatened by the new PhD in GHS because our foci are so different and our students want greater depth in the social sciences than will your students. Therefore, there are no territorial issues and we look forward to working together as you further develop the course content.

The goals of this new program are in line with the vision and mission of UCSF, and this new program offers opportunity for collaboration across the University. I am particularly enthusiastic about the benefits and opportunities generated by identifying coursework that can be shared across graduate programs. I believe this PhD will
further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities.

Sincerely,

Ian Whitmarsh, Ph.D.
Associate Professor
Director, Medical Anthropology Ph.D. Program
Department of Anthropology, History, and Social Medicine
University of California, San Francisco
whitmarshi@dahsm.ucsf.edu
(415) 476-6164
Appendix 3c. Other UC Campuses
May 21, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Council Members,

I am pleased to learn that UCSF Global Health Sciences is moving forward with its plans to initiate a PhD in Global Health. The University of California system has major strengths at most UC campuses in global health, but none of the campuses have yet developed a PhD that is exclusively oriented to global health sciences. This degree, an interdisciplinary and interprofessional endeavor, will offer new coursework in the diverse areas that comprise the new and growing field of global health. As such it will prepare faculty to join academic institutions in academic and research positions. As the Director of the UCLA Center of World Health in the School of Medicine, I am well aware of the depth and breadth of interest in global health on the part of California undergraduate, graduate, and professional degree students and I am sure that many of them will be attracted to the UCSF PhD program.

I am particularly enthusiastic about the benefits and opportunities generated by identifying coursework that can be shared across graduate programs, especially through the mechanisms offered by the University of California, Global Health Institute (UCGHI), for which I am the co-Executive Director with Dr. Haile Debas. Having been the co-founder of the UCSF Center for AIDS Prevention Studies (CAPS) and the founding Executive Director of the UCSF AIDS Research Institute I am aware of the many and varied resources at UCSF and the complementary resources at UCLA. I believe this new PhD will further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program’s design that includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths assures the academic success of the program. The ongoing programs of research in which GHS has traction are important areas for doctoral level dissertations.

We look forward to sending some of our students to UCSF and hope that there will be opportunities for our UCLA World Health center, UCGHI, and the new program at UCSF to collaborate. Global health is a rapidly growing discipline and the proposed program at UCSF benefits all of us. I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support for the development of this program.

Sincerely,

Thomas J. Coates, PhD
Distinguished Professor of Medicine
Michael & Sue Steinberg Endowed Professor of Global AIDS Research
Director, Center for World Health
David Geffen School of Medicine & UCLA Health
University of California, Los Angeles
May 22, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253 San Francisco, CA 94143

Dear Council Members,

I am pleased to learn that UCSF Global Health Sciences plans to initiate a PhD in Global Health Sciences, which will capitalize on the many strengths of UCSF, as well as help advance the overall profile of the University of California as a leader in this growing field. This proposed degree, an interdisciplinary and interprofessional endeavor, will offer new coursework and research opportunities in the diverse areas that comprise global health. As such, it will prepare faculty to join academic institutions in teaching and research positions, as well as train future leaders in global health. As the Associate Dean for Global Programs in the UC Davis School of Veterinary Medicine and co-director of the UC Global Health Institute, One Health Center of Expertise: Water, Animals, Food and Society, I am well aware of the strong interest in global health on the part of students, postdoctoral scholars, and faculty members across the UC system.

I am particularly enthusiastic about the benefits and opportunities generated by identifying course-work and other training opportunities that could be shared across our programs. At UCD we offer a Masters in Public Health, Masters in Preventive Veterinary Medicine, and Masters in International Agricultural Development. In addition, we hope to launch an undergraduate Major/Minor in Global Disease Biology in the fall of 2014. Our programs could serve as a pipeline for each other and the complementary resources and geographic locations of UCSF and UCD have the potential to advance our working relationships across programs.

We look forward to opportunities for our educational programs to collaborate as global health is a rapidly growing discipline and the proposed program at UCSF benefits all of us. I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support.

Sincerely,

Patricia A. Conrad, DVM, PhD
Associate Dean for Global Programs
School of Veterinary Medicine
University of California, Davis

Co-Director, One Health Center
University of California Global Health Institute
May 27, 2014

Graduate Council
Academic Senate Office
University of California, San Francisco (UCSF)
Box 0764, MUE Room 253
San Francisco, California 94143

Dear Council Members:

As the Head of the Division of Epidemiology at the University of California, Berkeley School of Public Health and the Associate Director of the Center for Global Public Health (CGPH), I look forward to working with UCSF as they develop and enroll doctoral students in the first PhD program in global health in California. Our past history of collaboration in the Fogarty Framework grant has helped cement the relationship between UC Berkeley and UCSF and provides the basis for continuing collaboration. The proposed program, which is an interdisciplinary and interprofessional endeavor, will offer new coursework in the diverse areas that comprise the new and growing field of global health. I envision an exchange of UCSF doctoral students with our PhD program students and I look forward to working with the UCSF students. The proposed program will prepare faculty to join academic institutions in academic and research positions, which is very much needed as the depth and breadth of interest in global health on the part of California undergraduate, graduate, and professional degree students has grown and there is an increasing need for faculty in the area of global health sciences. I believe this new PhD program will further advance our working relationships across programs and help us embrace interprofessional collaboration and educational activities.

The integration of UCSF expertise in the health, social, and biological sciences is key to launching a successful PhD program in global health sciences. The program’s design, which includes four tracks representing the areas in which UCSF Global Health Sciences (GHS) already has major strengths, assures the academic success of the program. The ongoing programs of research in which GHS has strength are important areas for doctoral level dissertations.

We look forward to sending some of our students to UCSF and hope that there will be opportunities for our UC Berkeley CGPH and the new program at UCSF to collaborate. Global health
is a rapidly growing discipline and the proposed program at UCSF benefits all of us. I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support for the development of this program.

Sincerely,

[Signature]

Arthur L. Reingold, MD
Associate Faculty Director, CGPH
May 16, 2014

UCSF Graduate Council
Academic Senate Office
UCSF Box 0764, MUE Room 253
San Francisco, CA 94143

Dear Council Members:

I am pleased to learn that UCSF Global Health Sciences is moving forward with its plans to initiate a PhD in Global Health Sciences. The University of California system has major strengths at many UC campuses in global health, including the educational and training programs offered at UC San Diego. This proposed degree, an interdisciplinary and inter-professional endeavor, will offer new coursework and research opportunities in the diverse areas that comprise the growing field of global health. As such, it will prepare faculty to join academic institutions in teaching and research positions, as well as train future leaders in global health. As the Associate Dean of Global Health in the UCSD Department of Medicine, member of the Leadership Committee of the UC Global Health Institute, and co-PI of the NIH Fogarty GloCal Fellowship Program with Craig Cohen, I am well aware of the depth and breadth of interest in global health on the part of undergraduate, graduate and professional degree students, and postdoctoral scholars.

I am particularly enthusiastic about the benefits and opportunities generated by identifying course work and other training opportunities that could be shared across our programs. At UCSD we offer a joint PhD with San Diego State University in Public Health with a global health concentration, an undergraduate minor in global health, and a newly approved undergraduate major in global health. Our undergraduate programs could serve as a pipeline for the new PhD program and the complementary resources of UCSF and UCSD have the potential to advance our working relationships across programs.

We look forward to sending some of our students to UCSF and hope that there will be opportunities for our educational programs to collaborate. Global health is a rapidly growing discipline and the proposed program at UCSF benefits all of us. I sincerely hope this proposal for the PhD in Global Health Sciences will be favorably reviewed and I offer my enthusiastic support.

Sincerely,

[Signature]

Steffanie Strathdee, PhD
Associate Dean of Global Health Sciences
Harold Simon Professor and Chief of the Division of Global Public Health
University of California, San Diego
Appendix 4. Faculty Biosketches
Vincanne Adams, PhD
Curriculum Vitae

CURRENT POSITION
Professor and Vice Chair
Department of Anthropology, History and Social Medicine
School of Medicine
University of California San Francisco

EDUCATION
1989 University of California, Berkeley and UCSF PhD, Medical Anthropology
1982 Brown University, Providence, RI BA, Biology

PRINCIPAL POSITIONS HELD
2000-pres Associate and Full Professor, Dept. of Anthropology, History and Social Medicine, University of California, San Francisco
1992-1999 Assistant and Associate Professor, Department of Anthropology, Princeton University

HONORS, AWARDS, RECOGNITIONS
2014 Finalist, C. Wright Mills Prize (for Markets of Sorrow, Labors of Faith)
2009 Winner of the Basham Medal, presented by the International Association for the Study of Traditional Asian Medicine, at the ICTAM VII Congress in Thimpu Bhutan
2009 Nominee and runner up for President of Society for Medical Anthropology, American Anthropological Association.
2006 Polgar Prize, Society for Medical Anthropology (awarded to best article appearing in flagship journal MAQ over a two year period)
2006 Nominee: Outstanding Faculty Membership Award
2000 Winner of the YuThog Cup Award, Lhasa 2000 Conference on Tibetan Medicine, Minority Medical Association of China, Lhasa TAR, PRC.

RESEARCH ACTIVITIES
Major Fieldwork:
2010-pres Metrics of the Global Sovereign: Evidence and Efficacy In Global Health
1982-pres Modernization and Trauma in Tibet
2007-pres Disaster Recovery in Post-Katrina New Orleans
2006-2010 Voluntary Blood Donation and HIV Prevention in China (Shanghai)
2001-2005 Safe Motherhood and Women’s Health in Tibet
2000 Tibetan Medicine and Modernization in Lhasa, TAR.
1986-1989 Medical Pluralism and Social Change among Sherpas of Nepal (Ethnographic Theory, Tourism, Medical Knowledge and Ritual)
PROFESSIONAL ACTIVITY

2013-pres  Vice Chair, Department of Anthropology, History and Social Medicine
2012      Interim Chair, Department of Anthropology, History and Social Medicine
2000-2012 Director, Graduate Program in Medical Anthropology, UCSF (joint program with UC Berkeley)
1992-1999 Director, Graduate Program in Anthropology, Princeton University

Administrative Service (since 2000)

2012-     Global Health Sciences Education Development Committee, UCSF
2010-pres Pacific Rim Research Award Committee, UCSF
2006-pres Center for Science, Technology and Medicine Studies, UC Berkeley
2006 -pres Institute on Global Conflict and Cooperation, Campus Program Director or Steering Committee Member (excluding 2012-2013)
2000-2011 Faculty in-charge, Medical Anthropology Departmental Colloquium
2006-2011 Global Health Sciences Curriculum Development Committee, UCSF
2003-2010 Deans Research Prize Committee, UCSF
2003-2004 Chancellor’s Advisory Committee on the Status of Women, UCSF
2003-2006 Pathways to Discovery SOM Task Force, UCSF
2005-2008 Medical Humanities Area of Concentration, co-director, UCSF
2000-2004 Center for Health and Community, Steering Committee, DAHSM, UCSF
2000-2001 Culture in the Curriculum, Development Committee, UCSF
2000-2001 Brain, Mind and Behavior Block, Development Committee, UCSF
2000-2003 UC Humanities Research Institute, Advisory Board, UCI

EXTRAMURAL FUNDING (5 years only)

Age, Disruption and Life Reorganization after Hurricane Katrina
NIH(NIA) R01 AB028621   PI: Adams, V   $1,203,840   6/07-5/12

Blood Donation and HIV Prevention in China
NIMH R21         PI: Adams, V   $336,643   3/06-2/09

Science and Morality in Tibet: Research Across Cultures
PI: Adams, V   $79,404   1/06-4/09

PUBLICATIONS

BOOKS, Peer-Reviewed
Adams, V. PreOccupied: Writing In-The-Gap About Tibet (under review, Duke).
Adams, V. ed. Metrics, Global: Numbers and Stories in Global Health (under review, Duke)
Adams, V. Markets of Sorrow, Labors of Faith: New Orleans in the Wake of Katrina
Adams, V., Schrempf, M. and Craig, S., eds., Medicine Between Science and Religion:


**ARTICLES AND CHAPTERS, Peer-Reviewed (Selective list, since 2008 only)**

Adams, V. “Tibet on Fire” In Veena Das and Clara Han, eds. An Anthropology of Living and Dying in the Contemporary World, University of California Press (in press).


Baltzell, Kimberly A.

**A. Personal Statement**

My program of research has focused on malaria and non-malarial fevers in sub-Saharan Africa. As part of this research program, I have conducted qualitative studies to explore how health workers make diagnostic decisions in resource limited settings. Additional, as Associate Director of the MS in Global Health Sciences at UCSF, I have developed and supervised multiple qualitative and quantitative studies of graduate students in topics ranging from HIV risk in men in Malawi to perception of malaria risk.

**B. Positions and Honors**

**Positions and Employment**

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Position and Organization</th>
<th>Institution and Location</th>
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</thead>
<tbody>
<tr>
<td>1981-1984</td>
<td>Account Executive, Dean Witter Reynolds</td>
<td>St. Mary's College of Maryland, St. Mary's City, Maryland</td>
</tr>
<tr>
<td>1984-1989</td>
<td>Vice President, Sales, Smith Barney</td>
<td>University of Pennsylvania, Philadelphia, PA</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Nursing Student</td>
<td>University of San Francisco, San Francisco, CA</td>
</tr>
<tr>
<td>1999-2001</td>
<td>Volunteer R.N., San Francisco Free Clinic</td>
<td>University of California San Francisco, CA</td>
</tr>
<tr>
<td>2004-2006</td>
<td>Clinical Nurse III</td>
<td>University of California San Francisco, San Francisco, CA</td>
</tr>
<tr>
<td>2006-present</td>
<td>Assistant Adjunct Professor</td>
<td>University of California San Francisco</td>
</tr>
<tr>
<td>2010-present</td>
<td>Faculty Associate</td>
<td>San Francisco Free Clinic, San Francisco, CA</td>
</tr>
<tr>
<td>2013-present</td>
<td>Associate Director</td>
<td>University of California San Francisco</td>
</tr>
<tr>
<td>2014-present</td>
<td>Director</td>
<td>UCSF School of Nursing International Programs &amp; Global Health</td>
</tr>
</tbody>
</table>

**Professional Memberships**

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<thead>
<tr>
<th>Year(s)</th>
<th>Membership</th>
<th>Organization</th>
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<tbody>
<tr>
<td>2001-present</td>
<td>Member, Sigma Theta Tau International</td>
<td>Sigma Theta Tau International</td>
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<tr>
<td>2002-present</td>
<td>Member, Oncology Nursing Society</td>
<td>Oncology Nursing Society</td>
</tr>
<tr>
<td>1996-2004</td>
<td>Founding Board Member</td>
<td>Sarcoma Alliance</td>
</tr>
<tr>
<td>2006-present</td>
<td>Founder</td>
<td>NetGain-Malawi</td>
</tr>
<tr>
<td>2008-2012</td>
<td>Board Member</td>
<td>Global AIDS Interfaith Alliance</td>
</tr>
<tr>
<td>2009-present</td>
<td>Board Member</td>
<td>The Milagro Foundation</td>
</tr>
<tr>
<td>2009-2012</td>
<td>Chair</td>
<td>The Milagro Foundation</td>
</tr>
<tr>
<td>2010-present</td>
<td>Malaria Program Director</td>
<td>Global AIDS Interfaith Alliance</td>
</tr>
<tr>
<td>2013-present</td>
<td>Member</td>
<td>American Academy of Nursing</td>
</tr>
<tr>
<td>2014-present</td>
<td>Fellow</td>
<td>American Academy of Nursing</td>
</tr>
</tbody>
</table>
C. Selected peer-reviewed publications (in chronological order).


D. Research Support.

Ongoing Research

Bill & Melinda Gates Foundation #A122394 (Co-investigator) 1/14 – 12/16
Accelerating Progress on Elimination

The specific aims of this study are to compare reactive case detection in malaria index cases with total parasite elimination in Swaziland.

Avon Foundation Grant #02-2011-103 (PI) 1/12 – 12/14

The specific aims of this study of 150 women without breast cancer are 1) to determine if HPV and BLV play a role in the cause and progression of breast cancer during early nonmalignant stages and compare the frequency of virus markers in high risk versus low risk forms of nonmalignant pathology classifications and 2) to determine the potential utility of NAF cells to serve as a non-invasive surrogate measure of the presence of HPV and BLV within nonmalignant breast tissue.

Completed Research

Department of Defense #DAMD17-03-1-0354 (PI) 6/03 – 6/05
Exploring Early Detection Methods: Using the Intraductal Approach to Predict Breast Cancer

This historic prospective cohort study followed a cohort of breast clinic patients to the present, determining vital status and breast cancer incidence, statistical models of the association were constructed between categories of breast fluid cytology measurement and breast cancer incidence.

Dr. Susan Love Research Foundation Pilot Grant (co-PI) 3/07 – 3/09
Oncogenic Viruses in Nipple Aspirate Fluid: Biomarkers for Breast Cancer Risk Assessment?

The specific aims of the study are: 1) to determine the feasibility of detecting BLV, EBV, and HPV in NAF and NAF cells by different types of polymerase chain reaction (PCR) methods 2) to determine if these viruses are present more frequently in women with a history of breast cancer versus those with no history.

Avon Foundation Grant #07-2007-073 (PI) 1/08 – 6/10
Viruses in Breast Fluids: Biomarkers for Breast Cancer Risk?

The aims of this study are 1) to perfect the technique of using in situ polymerase chain reaction (PCR) to detect bovine leukemia virus (BLV), Epstein-Barr virus (EBV) and human papilloma virus (HPV) in nipple aspirate fluid (NAF) cells and fluid 2) to compare breast tumor and non-neoplastic tissue and NAF from the same subject for the presence of BLV, EBV and HPV and 3) to compare both breast tissue and NAF specimens from the diseased and contralateral breast of the same subject for evidence of BLV, EBV and HPV.

Milagro Foundation (PI) 2/09-2/10
NetGain-Malawi – Universal bednet distribution project

Bill and Melinda Gates Foundation Grand Challenges Exploration (co-investigator) 3/10-3/11
PlasmoTrack: Spatiotemporal Tracking of Malaria Parasites for Malaria Elimination

The goal of this research is to test a novel system that utilizes molecular and computational tools to track individual malaria parasites across space and time to determine whether a parasite is locally transmitted or imported, and from where the parasite originated.
Milagro Foundation (PI)  2/10-2/11
Netgain-Malawi – Universal bednet distribution project

The goal of this project was to distribute over 200,000 insecticide-treated bed nets in southern Malawi to residents without access to health care facilities. Nets were provided by The Global Fund for HIV, TB and Malaria.

ACT Consortium #ITGB5170/KI (field coordinator)  3/11-8/11
Infectious disease etiologies of uncomplicated febrile illness in children <5 years of age in rural Zanzibar

The goal of this project was to study infectious disease etiologies in uncomplicated febrile illness in children 2-59 months seeking care at primary health care centers in Zanzibar and to assess how RDT incorporated in the IMCI guidelines identifies ACT- and antibiotic requiring patients.

Center for AIDS Research – University of California San Francisco (PI)  9/11 – 9/12
Provider Practices with Childhood Non-Malarial Fevers: A Pilot Study in Zanzibar

The specific aims of this mixed methods study are: 1) to determine the specific diagnoses and treatments assigned by health care providers to febrile patients under the age of 5 in clinics in Zanzibar and 2) to characterize health care provider practices leading to the diagnosis and treatment of febrile patients under the age of 5 in Zanzibar.
### BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brindis, Claire D.</td>
<td>Professor of Pediatrics and Health Policy; Director, Philip R. Lee Institute for Health Policy Studies</td>
</tr>
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**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>BA</td>
<td>1972</td>
<td>Sociology, Cum Laude</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>MPH</td>
<td>1973</td>
<td>Maternal/Child</td>
</tr>
<tr>
<td>University of California, Berkeley, CA</td>
<td>DrPH</td>
<td>1982</td>
<td>Public Health/Behavioral Sciences</td>
</tr>
</tbody>
</table>

**A. Personal Statement**

My research focuses on young adult, adolescent, and child health policy, and topics related to adolescent health and risk-taking behaviors, social, health, and economic disparities among a wide variety of sub-groups of adolescents, and multi-method evaluations of health interventions aimed at ameliorating the impact of social and health disparities. My research has examined health and economic disparities among multi-ethnic/racial groups nationally, including in health insurance coverage, risk taking behaviors, including teenage pregnancy, as well as issues such as suicide, substance use, and other health outcomes, in addition, I have special expertise on Latino/a diverse populations, global reproductive health, migration and health, as well as examining the impact of migration and acculturation on Latina/o immigrants. I have served on the Steering Committee of the University of California, Global Health Initiative’s Center of Expertise on Migration and Health (COEMH) (being one of the co-founders with colleagues at UCSD, UCLA, and UC Irvine) and the Center of Expertise on Women’s Health and Empowerment (also a co-founder), serving as a liaison between both groups. Among my publications are three reports, which I have co-authored: “Creating a Health Research and Policy Agenda for Immigration Between Mexico and California”, and “Migration and Health: Mexican Immigrant Women in the U.S.” and “A Health Profile of Immigrant Teenagers”, representing a multi-campus, cross-border collaboration between the National Population Council of the Government of Mexico (CONAPO), UCB School of Public Health Initiative of the Americas (ISA), UCLA School of Public Health, UC, Davis and UC Berkeley Migration and Health Research Center (MAHRC), and UCSF’s Bixby Center for Global Reproductive Health (I am one of the co-Directors). In addition, I bring particular expertise in the translation of research findings into policy and its dissemination to a wider variety of stakeholders, using both academic and non-academic channels, including films, briefs, webinars, training curriculum and materials.

**B. Positions and Honors.**

**Positions and Employment**

1974 - 1977 Assistant Professor, Division of Allied Health Professions, School of Medicine, Emory University, Atlanta, GA

1982 - 1983 Assistant Professor, Department of Physical and Health Education, San Francisco State University, San Francisco, CA

1982 - 1987 Senior Research Associate, Institute for Health Policy Studies, University of California, San Francisco, San Francisco, CA

1992 - 2003 Assistant Adjunct Professor (1992-1998), Associate Adjunct Professor (1998-2000), Adjunct Professor (2000-2003), Professor, In Residence (2000-) Pediatrics and Health Policy, Department of Pediatrics, Division of Adolescent Medicine and Institute for Health Policy Studies, School of Medicine, University of California, San Francisco, San Francisco, CA

2003 - Joint Appointment, Department of Obstetrics, Gynecology, and Reproductive Health Sciences, School of Medicine, University of California, San Francisco, San Francisco, CA

<table>
<thead>
<tr>
<th>Year</th>
<th>Position and Employment</th>
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<tbody>
<tr>
<td>1974 - 1977</td>
<td>Assistant Professor, Division of Allied Health Professions, School of Medicine, Emory University, Atlanta, GA</td>
</tr>
<tr>
<td>1982 - 1983</td>
<td>Assistant Professor, Department of Physical and Health Education, San Francisco State University, San Francisco, CA</td>
</tr>
<tr>
<td>1982 - 1987</td>
<td>Senior Research Associate, Institute for Health Policy Studies, University of California, San Francisco, San Francisco, CA</td>
</tr>
<tr>
<td>1992 - 2003</td>
<td>Assistant Adjunct Professor (1992-1998), Associate Adjunct Professor (1998-2000), Adjunct Professor (2000-2003), Professor, In Residence (2000-) Pediatrics and Health Policy, Department of Pediatrics, Division of Adolescent Medicine and Institute for Health Policy Studies, School of Medicine, University of California, San Francisco, San Francisco, CA</td>
</tr>
<tr>
<td>2003</td>
<td>Joint Appointment, Department of Obstetrics, Gynecology, and Reproductive Health Sciences, School of Medicine, University of California, San Francisco, San Francisco, CA</td>
</tr>
</tbody>
</table>
2005 - Associate Director (2005-2009), Acting Director (2006-2007), Interim Director (2007-2009), Director (2009-) Philip R. Lee Institute for Health Policy Studies, School of Medicine, University of California, San Francisco, San Francisco, CA

Selected Honors
1991 Community Leadership Award, National Family Planning and Reproductive Health Association
1994 Integrity Award, Office of Inspector General, Office of Evaluation and Inspections, U.S. Department of Health and Human Services
1998 Society for Adolescent Medicine/Organon Visiting Professor in Adolescent Health
2000 Mark Pearlman Outstanding Service Award, California Child, Youth and Family Coalition
2000 California State Senate Resolution for distinguished service to the public and the State of California in conjunction with National Public Health Week
2000 Beverly A. Meyer Award for Excellence in Public Health, California Department of Health
2001 John C. MacQueen Lecture Award, Association of Maternal and Child Health Programs
2005 Maternal & Child Health Bureau Director’s Award: In Recognition of Contributions Made to the Health of Infants, Mothers, Children, Adolescents & Children with Special Needs
2006 California’s Family Planning Champion Award, California Family Health Council, Inc. For vision and commitment in creating and sustaining the California Office of Family Planning and the Family PACT Program.
2009 Chancellor’s Award for the Advancement of Women, UCSF
2011 - Member, Institute of Medicine of the National Academies (IOM)
2012 - UCLA School of Public Health Alumni Hall of Fame

C. Selected Peer-Reviewed Publications (selected from 145 peer-reviewed publications)

Most relevant to the current application

Additional recent publications of importance to the field (in chronological order)


D. Research Support

ACTIVE

10-95221 (Darney) 07/1/2010 - 06/30/2015
State of California, Office of Family Planning
Evaluation of the Family PACT (Planning, Access, Care and Treatment) Program
This evaluation of the states’ comprehensive family planning program includes billing data analyses, focus groups with providers and clients, exit interviews, cost-benefit analyses, and case studies.

10-10111 (Brindis) 12/1/2010 – 11/30/2013
California Department of Public Health
Building Capacity to Advance the Health & Well-being of Adolescents
To provide information, resources and expertise to support the provision of quality health care services to adolescents, increase the capacity of local Maternal, Child and Adolescent Health (MCAH) jurisdictions and their adolescent health practitioners to promote the health of adolescents, and to influence policy with the intent of improving the health and well-being of California’s adolescents.

10-95452 (Brindis) 07/01/2010 - 06/30/2015
California Department of Public Health
Teen Pregnancy Prevention Project Evaluation
California Department of Public Health, Office of Family Planning
Evaluation research that help characterize the funded programs and estimate how well they are meeting the State’s objectives. Program evaluation results help public health professionals, educators, and policymakers to support more effective teenage pregnancy prevention interventions to reduce the negative social and economic consequences of this important public policy issue.

FPR PA006051 (Darney) 9/1/2009 - 8/31/2014
DHHS - Office Population Affairs
Innovative evaluation of Title X and 1115 Waiver Family Planning Program
Provide conceptual guidance to the development of project design and methodology and oversight of project planning and implementation.
Program Director/Principal Investigator (Last, First, Middle):

PENDING
None.

OVERLAP
None.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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<tbody>
<tr>
<td>Tina Penick Brock</td>
<td>Associate Dean for Global Health &amp; Educational Innovations; Professor of Clinical Pharmacy UCSF School of Pharmacy</td>
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</table>

**eRA COMMONS USER NAME** (credential, e.g., agency login)

tmpbrock

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<tr>
<td>University of Mississippi</td>
<td>BA</td>
<td>05/90</td>
<td>German</td>
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<tr>
<td>University of Mississippi</td>
<td>BS</td>
<td>12/90</td>
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<tr>
<td>University of Mississippi</td>
<td>MS</td>
<td>12/92</td>
<td>Pharmaceutical Sciences</td>
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<tr>
<td>University of North Carolina at Chapel Hill</td>
<td>EdD</td>
<td>12/04</td>
<td>Curriculum &amp; Instruction</td>
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</tbody>
</table>

**A. Personal Statement**

I am a pharmacist and educator with 20 years of experience in curriculum development in health professions educational programs around the world. My expertise is in health workforce assessment, curriculum development, technology-enhanced learning, interprofessional education and capacity building. I have successfully mentored numerous PharmD students, residents, fellows, and PhD students from idea generation through publication.

**B. Positions and Honors**

**Positions and Employment:**

1992 – 1992 Consultant, Partners in Pharmacy, McComb, MS
1992 – 1992 Assistant Manager, Medical Center Pharmacy, McComb, MS
1992 – 1995 Pharmacist, Psychiatry Service, Methodist Medical Center, Jackson, MS
1993 – 1995 Manager, Professional Development and Membership Services, Mississippi Pharmacists Association, Jackson, MS
1995 – 2001 Clinical Assistant Professor and Coordinator, Pharmaceutical Care Laboratory, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC
1998 – 1999 Clinical Pharmacist, UNC-Kerr Drug Enhanced Pharmaceutical Care Center, Chapel Hill, NC
1998 – 1999 Assistant Director, Student Services, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC
1997 – 2005 Clinical Specialist, Pharmacy, Department of Pulmonary Medicine, University of North Carolina Hospitals Ambulatory Care Center, Chapel Hill, NC
1999 – 2005 Director, Student Services, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC
2001 – 2006 Clinical Associate Professor, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC
2005 – 2008 Lecturer and Director, MSc in Clinical Pharmacy - International Practice & Policy, School of Pharmacy, University of London, London, United Kingdom
2006 – 2011 Adjunct Assistant Professor, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC
2008 - 2010 Director, Capacity Building & Performance Improvement, Center for Pharmaceutical Management, Management Sciences for Health, Arlington, VA
2008 - present Honorary Senior Lecturer in Practice & Policy, School of Pharmacy, University of London, London, United Kingdom
2010 – present Professor of Clinical Pharmacy, School of Pharmacy, University of California, San Francisco, San Francisco, CA
2011 – present Associate Dean for Global Health & Educational Innovations, School of Pharmacy, University of California, San Francisco, San Francisco, CA

Honors and Awards
1990 Roche Pharmacy Communications Award
1990 AFPE/McNeil Graduate Fellowship Award
1993 Marion Merrell Dow Distinguished Young Pharmacist of Mississippi
1998 APhA – APPM Presentation Merit Award
2000 Paul G. Rogers/NCPIE Medication Communicator Award – Honorable Mention
2000 APhA – APPM Presentation Merit Award
2000 Albert B. Prescott/GlaxoSmithKline Leadership Award
2002 APhA – APPM Presentation Merit Award
2004 UNC Order of the Grail/Valkyries
2005 APhA-ASP National Outstanding Advisor Award
2006 Invited guest scientist, Ministry of Health, Welfare and Labor, Japan
2012 Elected President, Phi Lambda Sigma Leadership Honorary
2013 Outstanding Alumnus, University of Mississippi Department of Pharmacy Administration
2014 Fellow, American Pharmacists Association

C. Selected publications, posters & presentations (relevant to the current application):

Publications

Posters:


Presentations:


2. When a lion eats your pharmacist: Implications for task-shifting on patient and provider safety in the developing world. Injury Risk Management Research Centre at the University of New South Wales. Sydney, Australia (January 2009)

3. Learning to teach: A Workshop for new pharmacy faculty in the developing world. 69th Annual Congress of the International Pharmaceutical Federation. Istanbul, Turkey (September 2009)

4. National pharmacovigilance systems: Ensuring the safe use of medicines through capacity building. USAID-sponsored conference held in Nairobi, Kenya (August 2010)

5. How to develop academic capacity to ensure seamless education. 70th Annual Congress of the International Pharmaceutical Federation. Lisbon, Portugal (September 2010)

7. Careers and leadership in pharmacy and education. 71st Annual Congress of the International Pharmaceutical Federation. Hyderabad, India (September 2011)

8. Pedagogy driving the use of technology in global education. 71st Annual Congress of the International Pharmaceutical Federation. Hyderabad, India (September 2011)


10. Using student portfolios to enhance reflective learning in health professions education. Hawai’i International Conference on Education. Honolulu, HI (January 2012)

11. Performance-based learning... the Top Gear Approach. Monash Pharmacy Education Symposium. Prato, Italy (July 2013)

12. Using the virtual environment to link teaching and learning. Monash Pharmacy Education Symposium. Prato, Italy (July 2013)

D. Funded Research (relevant to the current application)

2002 – 2003  UNC Interdisciplinary Education Grant: $25,000. An interdisciplinary course in health informatics. (Principal investigator)

2003 – 2005  Merck Company Foundation: $30,000. An interdisciplinary distance education program in health informatics. (Principal investigator)

2007 – 2010  UK Department for International Development/DEIPHE scheme: £16,500. Promoting appropriate use of medicines for poorer patients in Indonesia through pharmacy service development and evaluation. (Co-investigator)


2013 – 2015  UCSF Interprofessional Instructional Improvement Grant. Deepening patient-centered interviewing and counseling for behavior change skills. $16,000. Collaborator with JoAnne Saxe, RN, DNP.

A. Personal Statement
A medical anthropologist and health disparities researcher, I have taught the Social and Cultural Determinants of Health (Fall 2009) and Global Health Research Methods (Winter 2009-Fall 2014) courses in the Global Health Sciences Master’s Program at UCSF. I have served as academic mentor for 13 students and as primary capstone research mentor for three students. One of these has published his Capstone (Collins et al. 2013), another has a manuscript under review (Gabitova & Burke, Under Review), and the third in preparation (Napoles & Burke). I have an active research program in Havana, Cuba, focused on integrative oncology and chronic disease management. I recently published *Health Travels: Cuban Health(care) on and off the Island* (2013), the first critical analysis of Cuban healthcare from a global health perspective. In the Unites States, I am currently Principal Investigator of an NCI K07 Career Development Award that addresses organizational and interpersonal aspects of information disparities in cancer clinical trial recruitment (“Communicating about Clinical Trials: Bringing the CIS to the Underserved”), as well as several other projects addressing health literacy and social inequality in cancer care. As an example, I am currently working with a community based organization to develop and implement a peer support navigation program for Tagalog speakers to address systems navigation challenges, and recently completed a study of the use of community-based care navigators as sources of low literacy multi-lingual clinical trial information for underserved women. My research program, generally focused on social inequalities in cancer and chronic disease prevention and treatment, serves as a rich pedagogical resource for global health students.

B. Positions and Honors
Positions and Employment

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<th>Year</th>
<th>Position Description</th>
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<tbody>
<tr>
<td>2000 - 2002</td>
<td>Research Scientist, Refugee and Immigrant Health Promotion Program, Harborview Medical Center, University of Washington</td>
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<tr>
<td>2001</td>
<td>Lecturer, University of Washington, Women’s Studies Department, Spring Quarter</td>
</tr>
<tr>
<td>2001</td>
<td>Visiting Professor, Pacific Lutheran University, Department of Anthropology, Fall Quarter</td>
</tr>
<tr>
<td>2001 - 2002</td>
<td>Qualitative Data Analyst (P/T), University of Washington and Fred Hutchinson Cancer Research Center</td>
</tr>
<tr>
<td>2002</td>
<td>Visiting Professor, University of Washington, Bothell, Interdisciplinary Arts and Sciences</td>
</tr>
<tr>
<td>2002 - 2004</td>
<td>Research Scientist, Comprehensive Cancer Center Population Sciences, University of California, San Francisco</td>
</tr>
<tr>
<td>2004 - 2010</td>
<td>Assistant Professor, Department of Anthropology, History, and Social Medicine/Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco</td>
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<tr>
<td>2010 - present</td>
<td>Associate Professor, Department of Anthropology, History, and Social Medicine/Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco</td>
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</table>
Honors and Awards (last 10 years)

2003  Fellow, Cancer, Culture, and Literacy Institute, Moffitt Cancer Center and Research Institute, Tampa, Florida
2003  Latino Studies Research and Dissertation Award, Latin American Studies Association, Honorable Mention
2004-present National Institutes of Health, Health Disparities Loan Repayment Program
2005  Fellow, Advanced Training Institute on Health Behavior Theory, National Cancer Institute, Madison, Wisconsin
2008  Advanced Training in Scientific Leadership, Gladstone Institute, UCSF
2008  Medical Diplomacy Fellow, Institute for Global Health Sciences, UCSF
2012  Community Researcher Award, Zero Breast Cancer, Marin Co., CA
2014  Coro Faculty Leadership Collaborative, Chancellor’s Council on Faculty Life, CORO Center for Civic Leadership, UCSF

C1. Selected Peer-reviewed Publications


Taylor VM, Yasui Y, Burke NJ, Choe JH, Acorda E, Jackson JC. Hepatitis B knowledge and testing among Vietnamese-American women. Ethnicity and Disease 2005; 15:761-767. PMID: 16259050


Choe JH, Tu SP, Lim JM, Burke NJ, Acorda E, Taylor VM. Heat in their intestine: Colorectal cancer prevention beliefs among older Chinese Americans. Ethnicity and Disease 2006; 16:248-254. PMID: 16599379
Choe JH, Taylor VM, Yasui Y, Burke NJ, Nguyen T, Acorda E, Jackson JC. Health care access and sociodemographic factors associated with hepatitis B testing in Vietnamese American men. *Journal of Immigrant and Minority Health* 2006; 8:193-201. PMID: 16791529


**D. Research Support**

**Ongoing Research Support**

**Mt. Zion Health Fund (Burke NJ) 1/1/2014 – 12/31/2014**

**Developing a Low-literacy, Multi-lingual Breast Cancer Survivorship Care Plan**

This study, conducted in partnership with the San Francisco Women’s Cancer Network, is designed to identify informational and navigational needs for medically underserved breast cancer patients at key care transition points, specifically at the five-year mark. These data will be used to develop and pretest multi-lingual (English, Spanish, Tagalog, Chinese, Russian) survivorship care plan materials. Role: Principal Investigator: 10% effort.

**22RT-0089 Tobacco Related Disease Research Program (Tsoh) 8/1/2013 - 7/31/2016**

**A Family Intervention to Reduce Smoking in Vietnamese Men**

This study will test the 6-month efficacy of a family-based intervention utilizing lay health worker outreach and family involvement to promote smoking cessation in Vietnamese male smokers. A randomized controlled trial targeting 18 lay health workers and 108 smoker-family dyads will be conducted. Role: Co-Investigator, 4.8% effort.

**NIH/NCI K07 CA126999 (Burke NJ) 7/1/2008 – 6/30/2014**

**Communicating about Clinical Trials: Bringing the CIS to the Underserved**

The purpose of this study is to bring appropriate and accurate clinical trials information to African American, Latino and White public hospital cancer patients in order to support their decision making about clinical trials participation. The specific aims are to gain a deep understanding of clinical trial information needs and resources of these patients, how to incorporate the Cancer Information Service (CIS) into their information seeking strategies, and how to adapt current CIS services to better address the clinical trial information needs of these callers. Role: Principal Investigator, 16% effort.

**Avon Foundation Breast Cancer Disparities (Luce J) 7/1/2013 – 6/30/2014**

**A Collaborative Project to Develop Survivorship Materials for Underserved Women with Breast Cancer**

The 2012 American College of Surgeons Commission on Cancer “Cancer Program Standards: Ensuring Patient Centered Care” requires the development and implementation of care transition plans for all cancer survivors as a standard of care. This project employs inductive qualitative methods with breast cancer survivors and providers to develop low literacy multilingual survivorship care transition materials for use in safety net hospitals. Role: Pilot PI, 10% effort.

**Academic Senate, UCSF (Burke, NJ) 8/1/13-7/30/14**

**Oral Health Literacy (OHL) for English as a Second Language (ESL) Learners.** This pilot study employs...
inductive qualitative methods to identify and define navigational aspects of OHL for Mexican immigrant parents of young children. 10% effort.

A Family Intervention to Reduce Smoking among Chinese and Vietnamese Men.
This study examines the feasibility of an intervention using lay health worker outreach to involve both smokers and their family members in the Chinese and Vietnamese populations. Role: Co-Investigator. 5% effort.

Completed Research Support (in the Last 3 Years)
Mt. Zion Health Fund (Burke, NJ) 1/1/13-12/20/13
Buong Puso: Linking Filipinas with Breast Cancer to Care and Support Resources. The goal of this collaboration between the Filipino Senior Resource Center, the Mt. Zion Department of Radiology, and the Department of Anthropology, History and Social Medicine is to assess the feasibility and acceptability of a peer support program for Filipinas undergoing treatment for breast cancer.
TRDRP 19XT-0083 (Tsoh) 7/1/2010 – 6/30/2013
A Family Intervention to Reduce Smoking in Vietnamese Men
This study uses mixed research methods to develop a family intervention using lay health worker outreach to promote smoking cessation in Vietnamese American men. Role: Co-Investigator

Avon Foundation Breast Cancer Disparities (Luce J) 7/1/2012 – 6/30/2013
“Big Sister”: A Model of Filipina Breast Cancer Support
Building upon findings from a previous five year study of breast cancer support resources in the Filipina community in San Francisco, this pilot explores the feasibility of the implementation of a one-on-one patient navigation program in a community-based organization serving Filipina breast cancer survivors. Role: Pilot Principal Investigator.

17AB-1500 CA Breast Cancer Rsch Prog (Joseph & Caprio) 7/1/2011 – 03/31/2013
Clinical Trials Education and Access for Underserved Women
This study brings together the Shanti Breast Cancer Program, UCSF faculty, and BreastCancerTrials.org (BCT.org), a non-profit clinical trials matching service. The overall goal is to assess the potential role of a trusted CBO as a source of culturally appropriate education and access to clinical trials. This pilot study designed a Clinical Trials education program for Shanti Care Navigators to deliver to clients and a protocol for navigator-facilitated access to BCT.org. Role: Co-I.

NIH/NCI K07 CA126999-02S1 (Burke NJ) 10/1/2009-6/30/2011
American Recovery and Reinvestment Act Supplement to the K07 Career Development Award
This ethnographic ARRA Supplement conducted follow-ups with “interested but unsure” public hospital patients who had been offered CCT participation (African American, European-American, and Latino) out of the clinic into the wider contexts of CCT decision-making (home, work, community, family). Role: Principal Investigator.

DISP0706939 (Burke, PI) 11/01/2007-10/31/2011
Susan G. Komen Foundation Breast Cancer Disparities
Filipina Breast Cancer Support: What Model is Meaningful? The purpose of this study is to conduct ethnographic research into social support and social capital within the Filipino community as the basis for the development of culturally appropriate and sustainable breast cancer support services. Role: Principal Investigator

Gump Cancer Fd/Hampton Med Res (Burke, PI) 01/01/2010 – 12/31/2011
REAC Pilot, University of California, San Francisco
Contexts of Cancer Clinical Trial Decision-making among Chinese Patients. The purpose of this ethnographic study is the in-depth exploration of the clinical trial decision-making process with Chinese public hospital patients. The outcome of this pilot is not increased recruitment to cancer clinical trials, but rather in-depth understanding of the contexts in which cancer clinical trial decision-making occurs for Chinese public hospital patients. Role: Principal Investigator
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Coates, Thomas J.

POSITION TITLE
Professor of Medicine and Epidemiology

eRA COMMONS USER NAME
TCOATS

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

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<td>San Luis Rey College, California</td>
<td>B.A.</td>
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<td>San Jose State University, California</td>
<td>M.A.</td>
<td>06/71</td>
<td>Psychology</td>
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<tr>
<td>Stanford University, California</td>
<td>Ph.D.</td>
<td>06/77</td>
<td>Counseling Psychology</td>
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A. Personal Statement

I am the Director of the UCLA Division of Infectious Diseases, Global Health program (since 2003) and the Director of the UCLA Center for World Health (founded in 2012). I am the Michael and Sue Steinberg Endowed Professor of Global AIDS Research within the Division of Infectious Diseases at UCLA. In 1986 I co-founded the Center for AIDS Prevention Studies (CAPS) at UCSF and directed it from 1991 to 2003. I was also the founding Executive Director of the UCSF AIDS Research Institute, leading it from 1996 to 2003. My areas of emphasis and expertise are HIV prevention, the relationship of prevention and treatment for HIV, and HIV policies.

B. Positions and Honors

1984 - 2003  Member, Medical Attending Staff, UCSF Hospitals and Clinics
1990 - 2003  Professor, Department of Medicine, UCSF
1991 - 2003  Director, Center for AIDS Prevention Studies, UCSF
1996 - 2003  Director, AIDS Research Institute, UCSF
2003 - 2006  Professor Step VII, Division of Infectious Diseases, Department of Medicine, David Geffen School of Medicine, UCLA
2003 - Present  Joint Appointment, Department of Medicine, UCSF; Member, Executive Committee, UCLA AIDS Institute
2003 - Present  Director, UCLA Program in Global Health
2004 - Present  Joint Appointment, Department of Epidemiology, UCLA School of Public Health
2006 - Present  Professor Step IX, Division of Infectious Diseases, Department of Medicine, David Geffen School of Medicine, UCLA
2006 - Present  Michael & Sue Steinberg Endowed Professor of Global AIDS Research, Division of Infectious Diseases, Department of Medicine, David Geffen School of Medicine, UCLA
2009 - Present  Co-director, University of California Global Health Institute
2010 - Present  Co-director, UCLA Global Health Education Program

C. Selected Peer-reviewed Publications
(Publications selected from 283 peer-reviewed publications)


D. Research Support

Ongoing Research Support

P30 MH58107 (Rotheram-Borus) 02/01/07 - 01/31/17
NIH/NIMH
**Center for HIV Identification, Prevention, and Treatment Services (CHIPTS)**
The mission of the Center for HIV Identification, Prevention, and Treatment Services (CHIPTS) is to promote collaborative research and education on effective HIV detection, prevention, and treatment programs for HIV at the societal, community, provider, and individual levels. My role is as the Director for International Care.

USDS Agency for Internal Development (USAID) 03/15/10 - 03/14/15
**Building Capacity for HIV Prevention, Treatment, and Care in Malawi**
A collaborative project to rapidly enhance the continuum of care, improve health care training and services, and increase data quality and information dissemination for decision making in Malawi. My role is as the Principal Investigator.

U01 AI068619 (Vermund) 07/01/06 – 11/30/14
Family Health International
Funded under NIH 1
**HIV Prevention Trials Network (HPTN) Leadership Group**
The goals of this project are: 1) to develop the HPTN research agenda; 2) to review SWG research plans; 3) to review and approve concept plans; 4) to oversee the discretionary fund; 5) to review and revise HPTN policies and procedures; and 6) to evaluate the performance of the HPTN. My role is as a Executive Committee Member.

P30 AI28697 (Chen) 01/01/08 - 12/31/14
NIH/NIAID
**UCLA Center for AIDS Research (CFAR)**
Support for shared core services for AIDS-related research by UCLA investigators. *This center grant does not provide independent research support.* My role is as the Associate Director.

Completed Research Support

R01 MH077512-01 (Coates) 09/13/07 - 07/31/13
NIH/NIMH
**HIV VCT and Linkage to Care in Uganda**
Specific aims of the study are to test the hypotheses (1) that routine counseling and testing HIV among is as efficacious as traditional counseling and testing in reducing HIV risk behavior and (2) that an “enhanced linkage to care” model of referral to HIV-specific medical care is more effective than usual referrals. My role is as the Principal Investigator.

U01 MH66701 (Coates) 09/30/03 - 06/30/13
NIH/NIMH
**Community-Based HIV VCT: South Africa**
The goal of this study is to conduct a CBCVT intervention in South African communities with the goal of changing community norms and reducing risk for HIV infection among it members. My role is as the Principal Investigator.

RO1AI083034 (Celum) 04/17/09 - 03/31/13
University of Washington/NIH/NIAID
**Multicomponent, Targeted HIV Prevention for Sub-Saharan Africa: PreventionRX**
The goal of this study is to develop a coordinated, multi-component HIV prevention package of evidence-based biomedical and behavioral interventions that will be individually-tailored and targeted to maximize coverage and impact on HIV incidence in an African population. My role is as the Co-Principal Investigator.

R01 MH075639 (Coates) 09/09/05 - 08/31/12
NIH/NIMH
**Integrating HIV/STI Prevention/Treatment in China**
The goal of the project is to teach physicians in rural China how to enhance and integrate prevention and care for HIV and STIs. Public health impact: This project has the potential to provide a replicable and widespread training program to teach physicians to integrate HIV and STI prevention and care. My role is as the Principal Investigator.

R01 MH078752 (Coates) 09/28/06 - 07/31/12
NIH/NIMH
**Comunidades Positivas and Enhanced Partner Therapy in Peru**
This project will implement novel strategies for HIV and STI prevention among HIV/STI prevention strategies among men who have sex with men in low income barrios in Peru. My role is as the Principal Investigator.

Ford Foundation (Coates) 05/01/06 - 12/31/11
This grant supports consultative activities between UCLA and the Ford Foundation to assist the Ford Foundation in establishing its HIV/AIDS Global Initiative. My role is as the Principal investigator. My role is as the Principal Investigator.
A. Personal Statement

I lived and worked in Nairobi between 1994 and 2002, working with researchers from both KEMRI and the University of Nairobi. Since its inception in 2004, I have been the PI/Director of the CDC/PEPFAR-funded Kenya-based Family AIDS Care and Education Services (FACES) HIV care and support program with supports care, treatment and prevention of HIV to over 130,000 people in western Kenya. FACES serves as the foundation for approximately 20 clinical and implementation research studies, including the SEARCH trial, which is a community-based cluster randomized controlled trial to determine if annual HIV testing and immediate provision of antiretroviral therapy reduces the incidence of HIV. I am the Co-PI of SEARCH in Kenya. In addition, I have led multiple clinical investigations in reproductive infectious diseases, including LACTIN-V to prevent recurrent bacterial vaginosis, and 3% SPL7013 (VivaGel), and the recently completed cluster randomized controlled trials on the integration of reproductive health and HIV services.

I am PI/Director of the NIH supported Reproductive Infectious Disease Fellowship program in the Department of Obstetrics, Gynecology and Reproductive Sciences at UCSF, and the Co-PI/Co-Director of the NIH Fogarty International Center-supported GloCal Health Fellowship which support training of post-doctoral fellows and doctoral students at 14 countries around the world including Kenya.

B. Positions and Honors

Positions:
- 1997-Present: Visiting Lecturer, Department of Obstetrics & Gynecology, University of Nairobi, Kenya
- 1997-Present: Visiting Senior Scientist, Center for Respiratory Disease Research, Kenya Medical Research Institute
- 2004-Present: Fellowship Director, Reproductive Infectious Disease Fellowship, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California San Francisco
- 2009-Present: Professor in-Residence, Department of Obstetrics & Gynecology, UCSF
- 2010-Present: Co-Director, UC Global Health Institute Center of Expertise in Women’s Health & Empowerment

Honors:
- 2012: UCSF School of Medicine Mentor of the Year of students in research
- 2010: UCSF AIDS Research Institute 2010 Award for Outstanding Mentor, nomination
- 1989: Alpha Omega Alpha Honors Society
- 1989: Who’s Who of American College Students
- 1987: Dr. Calhoun Prize in Physiology
- 1987: Linker Community Service Award
- 1981: Dean’s list at UCLA

C. Selected peer-reviewed publications in chronological order (from 101 published articles)


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**D. Research Support**

**Ongoing Research Support**

1R25TW009343-01 (PI: Cohen)  
4/04/12 – 2/28/17

**NIH – Fogarty**

**University of California Global Health Institute Program for Fellows and Scholars**: This project will train pre-doctoral scholars and post-doctoral fellows from UC San Francisco, UC San Diego, UC Los Angeles, UC Davis and 21 international collaborating institutions from low- and middle-income countries in a wide range of pressing and emerging global health issues. This program will be highly relevant as it will engage trainees in an intensive 11-month project conducted at an international site. The program will produce multidisciplinary global health leaders and strengthen the network of research and training across UC campuses and its international partnering institutions.
Pilot agricultural intervention for food security and HIV health outcomes in Kenya: This project will support formative work and an expanded phase 1 trial of a multisectoral agricultural intervention to improve the health of HIV-infected persons in Kenya. This work will lead to the development of a R01/U01 grant to support a cluster randomized controlled trial of the intervention.

Adult AIDS Clinical Trials Unit (ACTG): This study will evaluate health, economic, education outcomes of CD4 independent ART in rural East Africa. The study intervention is designed to improve the continuum of care, reduce structural barriers for all populations and add on to evidence based interventions such as adult male circumcision.

East Africa IeDEA Consortium: This project aims to enhance understanding about the HIV-epidemic in its sub-Saharan Africa context, provide insights on the optimal structure and impact of care and treatment programs, expand the set of tools available to inform implementation and operations research in resource-constrained settings and inform policy among stakeholders and decision makers at every level in the region as well as the broader HIV/AIDS scientific community.

Supporting the Implementation and Expansion of High Quality HIV Prevention, Care and Treatment Activities at Facility and Community Level in Kenya (Family AIDS Care and Education Services): This project expands comprehensive, integrated HIV services and strengthens the local healthcare systems to reduce HIV incidence, morbidity, and mortality in Nyanza and Nairobi Provinces, Kenya. The primary objectives are to expand primary prevention efforts; strengthen comprehensive HIV prevention, care, and treatment service delivery; and build local Government of Kenya HIV service and system capacity.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Molly Cooke, MD

POSITION TITLE
Professor of Medicine

University of California, San Francisco (UCSF)
Attending Physician, UCSF Medical Center

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<td>Stanford University, Stanford, California</td>
<td>BS</td>
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<td>Biology</td>
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<td>Stanford University School of Medicine, Stanford</td>
<td>MD</td>
<td>06/77</td>
<td>Medicine</td>
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<td>University of California, San Francisco</td>
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<td>Medicine - Internship</td>
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<td>06/80</td>
<td>Medicine - Residency</td>
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<td>06/81</td>
<td>Medicine – Chief Residency</td>
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<td>University of California, San Francisco</td>
<td></td>
<td>06-83</td>
<td>Fellowship - Ethics</td>
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</table>

Please refer to the application instructions in order to complete sections A, B, C, and D of the Biographical Sketch.

A. Personal statement

My career has focused on health professions education and program development. I have a particular interest in the intersection of health professions education, medical education research and health services research. I have a broad and deep theoretical foundation and extensive practical experience in health professions education and take as my theoretical orientation the ‘learning sciences’ generally, and socio-cultural learning theory in particular. Topically, my work has addressed the challenge of efficient and effective preparation of health professionals to meet the health care needs in resource-poor parts of the world (14) and the emerging field of global health education. I have explored concepts such as patient-centered care (13) quality and safety (12), the role of foundational science in the formal training and continuing education of physicians, and how issues of cost and value should be addressed (10). Beginning in 2000 I built UCSF’s Academy of Medical Educators (4), a national mode for enhancing the value and prestige of teaching. While the title of my book, Educating Physicians: A Call for Reform of Medical School and Residency (2010) (15) emphasizes the preparation of medical doctors, my experience extends to transprofessional practice and health professions education more broadly. I have worked in health professions education in Guatemala, Uganda, and Zimbabwe, as well as in the developed world. A founding faculty member of the internal medicine residency at San Francisco General Hospital – UCSF, I developed GME curricula focused on the care of the urban under-served, including community health and advocacy. I serve as the School of Medicine’s liaison to UCSF’s regional campus in Fresno and, in that capacity and as a member of the San Joaquin Valley PRIME advisory board, address health inequities in California’s Central Valley. I provided the educational expertise for IDCAP, Infectious Disease Capacity Building Evaluation, a three-year project exploring cost-effective ways to build capacity among mid-level providers in sub-Saharan Africa funded by the Bill and Melinda Gates Foundation. I serve on the Training Advisory Committee of the University of Zimbabwe Medical Education Partnership Initiative (MEPI); the US partner institutions are the University of Colorado and Stanford University

B. Positions and Honors

Principal Positions Held:
1983 - 1988    Assistant Clinical Professor of Medicine, UCSF
1988 – 1989    Assistant Professor of Medicine, UCSF
1989 – 1994    Associate Professor of Medicine, UCSF
1994 – present Professor of Medicine, UCSF
1999 – 2002  Co-director, Center for Collaborative Primary Care, UCSF
2004 – 2009  Senior Scholar, Carnegie Foundation for the Advancement of Teaching
2012 – present  Director of Education, UCSF Global Health Sciences

Honors and Awards:
1978  Diplomate, National Board of Medical Examiners
1981  Diplomate, American Board of Internal Medicine
2006  AOA Robert J. Glaser Distinguished Teacher Award, Association of American Medical Colleges
2010  Career Achievement Award in Education, Society for General Internal Medicine
2011  PROSE award for distinction in scholarly publication, Educating Physicians: A Call for Reform of Medical School and Residency
2012  Visiting professorships – seven in 2012

C. Selected Peer-reviewed Publications


2. Lesky L, Davis A, Cooke M. How did we make the interdisciplinary generalist curriculum work? National efforts to facilitate success. Academic Medicine 2001; 76:S26-S30. PMID: 11299167


D. Research Support
No current research grants
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

Craik, Charles S.  
Professor  
ccraik

NAME  
Craik, Charles S.  
POSITION TITLE  
Professor  
eRA COMMONS USER NAME (credential, e.g., agency login)  
ccraik

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)  

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<tr>
<td>Allegheny College, Meadville, PA</td>
<td>B.Sc.</td>
<td>1972-1976</td>
<td>Chemistry</td>
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<td>Columbia University, New York, NY</td>
<td>M.A.</td>
<td>1976-1978</td>
<td>Chemistry</td>
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<tr>
<td>University of California, San Francisco, CA</td>
<td>Postdoc</td>
<td>1981-1985</td>
<td>Biochem &amp; Biophysics</td>
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A. Personal Statement  
The research interests of the Craik lab focus on defining the roles and the mechanisms of enzymes in complex biological processes and on developing technologies to facilitate these studies. Information on the lab can be found at the following website: [http://www.craiklab.ucsf.edu/](http://www.craiklab.ucsf.edu/). The primary emphasis of our work has been on enzymes, with a particular emphasis on macromolecular recognition. Our original protein engineering studies have evolved to encompass various proteases as well as their endogenous inhibitors and membrane bound receptors, including uPAR, and have recently been successful at developing functional imaging probes for breast, colon, and prostate cancer using novel technologies. Our antibody engineering studies have identified Fabs that recognize conformational states of the target enzyme or receptor and were developed into functional probes for *in vivo* imaging (248, 280, 281, 287). The methodologies we developed to identify these functional Fabs have also been applied to enzymes and membrane proteins to facilitate structural and functional studies (226, 268, 271, 273) and are the basis of the current proposal. The proposed research of Project 1 and the Antibody Core of this Center—to identify and develop Fabs to study transporter structure and function—takes advantage of the experience that my lab has in biochemistry and molecular protein engineering and capitalizes on productive collaborations already in place with the Stroud, Cheng, Kroetz and Sali labs.

B. Positions and Honors  

**Academic Positions**  
1985-91 Asst. Professor, Depts. of Pharm. Chemistry and Biochem. & Biophysics, UCSF  
1994-present Professor, Depts. of Pharm. Chemistry, and Biochem. & Biophysics, UCSF  
1995-present Professor, Depts. of Pharm. Chemistry, Pharmacology and Biochem. & Biophysics, UCSF  
1997-present Member of the UCSF AIDS Institute  
1998-present Member of the UCSF Comprehensive Cancer Center  
1999-present Director, Chemistry and Chemical Biology Graduate Program  
2010-present Director, Quantitative Biosciences Consortium of Graduate Programs  

**Other Experience and Professional Memberships**  
1983-pres. Member, American Society of Biological Chemists  
1987-97 Editorial Board Member of BioTechniques  
1988 Editorial Board Member of DNA  
1988-03 Associate Editor of Protein Engineering  
1989-90 Nominating Committee for the Protein Society, Member, The Protein Society  
1993-96 National Science Foundation Molecular Biochemistry Advisory Panel  
1996 Vice Chair of Gordon Conference on Proteolytic Enzymes and Inhibitors  
1998 Chairman of Gordon Conference on Proteolytic Enzymes and Inhibitors  
1997, 99, 01 Co-organizer of the Cold Spring Harbor Meeting on the Biology of Proteolysis  
2009 NIH/NIAID, Study Section Member (B. Lange-Gustafson, Ph.D. SRO)  
2009 NIH, Center for Scientific Review Member (M. Rigas, Ph.D. SRO)
2012 NIH/NIAID Special Emphasis Panel (R.C. Unfer, Ph.D., SRO)
2012 NIH/NCI Board of Scientific Counselors Review Panel (F. Farber, Ph.D., SRO)
2013 NIH/HHS Study Section Member ZRG1 BCMC-B (D. Schneider, Ph.D., SRO)
2014 NIH/Synthetic and Biol Chem B Study Section Member (K. Koeller, Ph.D., SRO)

Honors
Top 100 Innovators - Science Digest (1985-86)
Henry Kamin Memorial Lecture, Duke University Medical Center, Durham, NC (1998)
PPOS Lecturer, Immunex Corporation, Seattle, WA (2000)
Council of Experts, United States Pharmacopeia (2009-present)
Lord Lecturer, Allegheny College, Meadville (2010)
Fellow of the American Association for the Advancement of Science (2011)
Academy of Sciences of the Czech Republic medal in Organic Chemistry and Biochemistry (2013)

C. Selected peer-reviewed publications most relevant to the current application. Selected from 290


Additional recent publications of importance to the field (in chronological order)


**D. Research Support**

**Ongoing Research Support**

R01 GM104659 (Craik, PI) 07/10/13-03/31/17

*Allosteric Inhibition of a Family of Proteolytic Enzymes*

The aim of this project is to identify and develop allosteric inhibitors that trap inactive conformations of a family of proteolytic enzymes associated with human herpes viruses that have sufficient pharmacologic viability to serve as the starting point for lead optimization and animal studies.

R21 CA186077 (Craik, PI) 04/01/2014 – 03/31/2016

NIH

*Extracellular Proteolysis as a Molecular Stratification Tool for Cancer*

Advancements in the diagnosis and monitoring of cancer require new technologies that can define disease at the molecular level. Proteases are a class of proteins that are essential molecular players in normal cellular function but also are responsible for the spread of aggressive cancer when they become unregulated. We are developing a highly sensitive technology that can report on protease function in cancer to both improve our understanding of cancer progression and aid in the identification and treatment of cancer in patients.

P50 GM082250 (Frankel, PI; Craik, Co-investigator) 09/20/12-08/31/17

*HARC Center: HIV Accessory and Regulatory Complexes.*

This project aims to validate and characterize HIV-Host complexes identified by tandem affinity purification and mass spectrometry. Select protein complexes are expressed in suitable expression systems for each protein complex after optimizing the clones at the nucleic acid level. Protocols are then established to produce reagent quantities of the desired complexes to determine the virological role of the complexes. Our initial emphasis is on the nucleic acid and protein complexes of HIV regulatory and accessory proteins including HIV protease, Integrase, Vpr and Vif.

P50 GM073210 (Stroud, PI; Craik, Co-investigator) 09/24/04-08/31/14

*Membrane Protein Expression Center: Antibody Assisted Crystallization.*

The aim of this subproject is to develop methods for screening and identifying fragments of antibodies from a highly diverse bacteriophage display library to be used in the structural characterization of membrane proteins using electron microscopy and x-ray crystallography.

U54 HG006436 (PI: Kossiakoff; Co-PI’s: Craik, Wells, Sidhu, Marks) 09/26/11-08/31/16

*Recombinant Antibody Network (RAN): Production of Affinity Reagents for Human Transcription Factors*  

The RAN is a consortium of three recombinant antibody production centers at UChicago, UToronto and UCSF. All three are contributing to generating recombinant antibodies to the ~1500 existing human transcription factors.

W81XWH-12-1-0440 (Craik, PI) 09/01/12—08/31/15

DOD

*Novel Imaging Biomarkers for Aggressive Prostate Cancer*  

Assess the in vitro and in vivo properties of a new class of protease biosensors to create better agents for imaging and quantifying proteolysis in breast cancer before and during treatment.

Role on Project: Principal Investigator
Research Training in Chemistry and Chemical Biology.
The aim of this predoctoral training program in Chemistry and Chemical Biology is to foster research that will exploit and develop chemical strategies to understand and control fundamental biological processes. The research has direct relevance to national priorities in human health, and addresses central problems in chemical biology. Although I am the PI of the grant and administer it, I receive no direct funding from this training grant.

Pending:

R21 CA185689 (PI: Craik) 09/01/2014-08/31/2016
NIH
Non-invasive Differentiation of Benign Lesions from Aggressive Pancreatic Cancer
To improve the specificity and durability of novel protease-activated fluorescent and positron-emission tomography probes for detection of pancreatic ductal adenocarcinoma (PDAC). The probes will be applied to a mouse model of PDAC to define and localize the active proteases during the evolution of PDAC over time for eventual development of a PET imaging agent.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Dandu, Madhavi

POSITION TITLE
Associate Professor of Medicine

eRA COMMONS USER NAME (credential, e.g., agency login)
dandum

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<td>University of Michigan</td>
<td>BA</td>
<td>05/97</td>
<td>Biomedical Sciences and Comparative Literature</td>
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<td>University of Michigan Medical School</td>
<td>MD</td>
<td>06/00</td>
<td>Medicine</td>
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<td>University of California, San Francisco</td>
<td>Residency</td>
<td>6/03</td>
<td>Internal Medicine</td>
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<tr>
<td>University of California, Berkeley</td>
<td>MPH</td>
<td>5/04</td>
<td>Public Health with International Concentration</td>
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A. Personal Statement

My main work, outside of clinical work, over the last five years has been in global health education. Through my positions as Director of the Global Health Area of Distinction for the Internal Medicine Residency Program, Associate Director of the Pathways to Discovery Program in Global Health, and as the Program Director for the Masters of Science in Global Health, I have extensive experience with educational program development, curriculum development, teaching, fieldwork mentorship, career mentorship, and trainee evaluation. Along with colleagues I oversee and assist with the formal training of over 60 global health trainees per year. In that role I have supervised capstone projects for over 100 trainees and been present and evaluated all of their qualifying and comprehensive examinations. Outside of my global health work I also mentor five to six internal medicine trainees and two junior faculty per year. Additionally I sit on multiple research review committees for proposals. In all of my roles I have reviewed more than 150 project proposals that focus on creating sustainable research projects and partnerships. I have additional training in epidemiology, biostatistics, and population health from by MPH work that will be helpful for supporting the PhD program.

B. Positions and Honors

Positions and Employment

2004- 2006 Clinical Instructor, University of Michigan, Department of Internal Medicine, Ann Arbor, MI
2006- 2013 Assistant Clinical Professor, University of California, San Francisco, Department of Medicine, San Francisco, CA
2013- present, Associate Professor of Clinical Medicine, University of California, San Francisco, Department of Medicine, San Francisco, CA
Other Positions Held Concurrently

2006-2010 Academic Coordinator, Interdisciplinary MPH Program, School of Public Health, University of California, Berkeley, Berkeley, CA
2007-present Director, Global Health Pathway, Internal Medicine Residency Program, University of California, San Francisco, San Francisco, CA
2007-2012 Director, International Electives Program, Internal Medicine Residency Program, University of California, San Francisco, San Francisco, CA
2008-present Associate Director, Pathways to Discovery in Global Health, University of California, San Francisco, San Francisco, CA
2009-2011 Fieldwork and Mentorship Director, Masters of Science in Global Health, Global Health Sciences, University of California, San Francisco, San Francisco, CA
2011- 2013 Associate Program Director, Masters of Science in Global Health, Global Health Sciences, University of California, San Francisco, San Francisco, CA
2013-2014 Interim Program Director, Masters of Science in Global Health, Global Health Sciences, University of California, San Francisco, San Francisco, CA
2014- Present Program Director, Masters of Science in Global Health, Global Health Sciences, University of California, San Francisco, San Francisco, CA

Relevant Professional Memberships

2007-2011 Member, Global Health Education Consortium
2009-2010 Member, American Society of Tropical Medicine and Hygiene
2009-present Member, Consortium of Universities for Global Health
2014 Inducted as member of the Academy of Medical Educators, UCSF

Relevant Honors and Awards

1997 Magna Cum Laude, Bachelor of Science, University of Michigan
1998 Novartis Award for Outstanding Community Service, University of Michigan Medical School
1999 Medical School Recognition for Women for Outstanding Achievement, University of Michigan Medical School
1999 Alpha Omega Alpha, University of Michigan Medical School
2003 University Fellowship, University of California, Berkeley

C. Selected Peer Reviewed Publications


D. Research Support

No extramural research support
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Dawson Rose, Carol Sue

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
crdawson

EDUCATION/TRAINING
(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<td>Community Health and Cross-Cultural Nursing</td>
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<td>Ph.D.</td>
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A. Positions and Honors

Positions and Employment

2000-2006 Assistant Adjunct Professor, Department of Community Health Systems, University of California, San Francisco, School of Nursing

2000-present Nurse Director, Pacific Region AIDS Education and Training Center, Department of Family and Community Medicine, University of California, San Francisco

2004-2007 Volunteer Faculty, Culture and Behavior Curricula, Department of Medicine, University of California, San Francisco

2006-2008 Associate Adjunct Professor, Department of Community Health Systems, University of California, San Francisco, School of Nursing

2008-present Core Faculty, Center for AIDS Prevention Studies, School of Medicine, University of California, San Francisco

2009-present Associate Professor, Department of Community Health Systems, University of California, San Francisco, School of Nursing

2011-present Advanced Practice Public Health Nursing Specialty Director, School of Nursing, University of California, San Francisco

Honors

2002 International Women's Day Award, Center for AIDS Prevention Studies, University of California-San Francisco

2005 Champion of Diversity, University of California-San Francisco Office of Affirmative Action, Equal Opportunity and Diversity

2011 Fellow, American Academy of Nursing

2013 Health Commission Award Wellness Team, SFDPH, Laguna Honda Hospital

2014 Leadership Hall of Fame, UCSF, Sigma Theta Tau International, Alpha Eta Chapter

B. Selected Peer-Reviewed Publications


15. Cummings, B., Gutin, S., Jainatilal, P., Correia, D., Malimane, I., & Dawson Rose, C. "Let's go together:" The role of social support among PLHIV in rural Mozambique. AIDS Patient Care and STDs. (In review)

C. Research Support

On-going Research Support

U2G-PS002770-01 09/30/2010-09/29/2015
Development and Implementation of HIV Positive Prevention Interventions in Mozambique.
The purpose of the partnership between the CDC Mozambique, I-TECH Mozambique and the School of Nursing, UCSF is to adapt evidence based PP intervention into the context of Mozambique, implement a curriculum in seven provinces and evaluate the implementation.
Role: C.S. Dawson-Rose, PI

656-A-00-10-00206-00 08/01/2010-07/31/2014
combination Prevention for the General Population of Adults and Youth, including Persons Living HIV in Mozambique.
As part of a large HIV Prevention initiative for Mozambique, we are developing a strategy for addressing HIV prevention with HIV-infected persons living in Mozambique. (JH University Sub-Award)

Role: Subcontractor

UCSF Medical Center Department of Nursing and School of Nursing 07/01/2013-06/30/2014

Screening and Treatment for HCV in HIV Co-Infected Patients in Primary Care

The purpose of this project is to determine the prevalence of HCV/HIV co-infected patients who are eligible for HCV treatment in an HIV primary care clinic; and to assess the feasibility of implementing an Integrated HCV Treatment Protocol into HIV primary care setting.

Role: PI

Completed Research Support

1RC1DA028224-01 09/30/2009-08/31/2011
NIH, Dept. of Health and Human Services Impact of a Computer-Assisted SBIRT Program in an HIV Care Setting

The purpose of this study is to institute screen for harmful use of alcohol, tobacco and other substance use in an HIV primary care clinic setting. RCT compare clinician administered to computer administered screening and brief interventions for harmful substance use. Compare levels of self-reported substance use and urine toxicology testing.

Role: C.S. Dawson-Rose, PI

U91HA06801 (UW Subcontract) 09/01/2009-08/30/2010

implementation of HIV Positive Prevention +Positives Interventions in Mozambique

The purpose of the contract was to continue work between the CDC Mozambique and the School of Nursing, UCSF on the Positive Prevention activities in Mozambique. The project moved to I-TECH as part of scale up of Mozambique national roll out of training for health care workers.

Role: Principal Investigator

H-F3-MOZ-07-PTR-PWPS 09/01/2006-08/30/2010

AIHA Twinning Center Development and Implementation of HIV Prevention with Positives Interventions in Mozambique

The purpose of the Twinning partnership between the CDC Mozambique and the School of Nursing, UCSF is to adapt evidence based PwP intervention into the context of Mozambique, implement a curriculum and evaluate the implementation.

Role: Principal Investigator

2 D09HP03285-04 Portillo (PI) 07/01/2007-06/30/2010

HRSA, Division of Nursingv Positive Health: Advanced Nurse Practice Education

Advance Practice Nurse Education grant to expand upon existing academic and clinic programs that prepares expert adult nurse practitioner and clinical nurse specialist in HIV/AIDS.

Role: Co-Investigator

R18/CCR 920974 09/30/2001-09/29/2006

CDC Prevention Services Research Branch Providing Prevention: An Intervention for HIV Medical Providers.

As PI of this study I directed all scientific operations of the study. Our team developed an evidence-based intervention for HIV infected persons. Intervention is to train primary care providers to address prevention within the setting of HIV care. This study is the basis of my Mozambique project.

Role: PI
Haile T. Debas, M.D.
Senior Global Health Advisor, UCSF
Director, University of California Global Health Institute

Haile T. Debas is recognized internationally for his contributions to academic medicine and is widely consulted on issues associated with global health. At the University of California, San Francisco, he served as the Founding Executive Director of UCSF Global Health Sciences (2003-2010), Dean of the School of Medicine (1993-2003), Vice Chancellor of Medical Affairs (1998–2003), and Chancellor (1997-1998). A gastrointestinal surgeon by training, Dr. Debas chaired the UCSF Department of Surgery (1987-2003), and is the Maurice Galante Distinguished Professor of Surgery, Emeritus. He also is the Founding Director of the University of California Global Health Institute. He was instrumental in the creation of the Consortium of Universities for Global Health and served as the Founding Chair of its Board of Directors (2009-2012).

A native of Eritrea, Dr. Debas received his M.D. from McGill University and completed his surgical training at the University of British Columbia (UBC) and post-doctoral fellowship at UCLA. He has held faculty positions at UBC, UCLA, and the University of Washington. Under Dr. Debas’ stewardship, the UCSF School of Medicine became a national model for medical education, an achievement for which he was recognized with the 2004 Abraham Flexner Award for Distinguished Service to Medical Education by the Association of American Medical Colleges (AAMC).

His prescient grasp of the implications of fundamental changes in science led him to create several interdisciplinary research centers that have been instrumental in reorganizing the scientific community at UCSF. He played a key role in developing UCSF’s new campus at Mission Bay. He has held leadership positions with numerous membership organizations and professional associations, including serving as president of the American Surgical Association and Chair of the Council of Deans of the AAMC. He served for two terms as a member of the Committee on Science, Engineering, and Public Policy of the National Academy of Sciences; served four years on the Advisory Committee to the Director of the National Institutes of Health; and was a member of the United Nations’ Commission on HIV/AIDS and Governance in Africa. He is a member of the Institute of Medicine, and served as chair of the Membership Committee.

Dr. Debas is a fellow of the American Academy of Arts and Sciences. He currently serves on the Board of Regents of the Uniformed Services University of the Health Sciences and the Board of Trustees of the Aga Khan University. He is a lead editor of the forthcoming Essential Surgery volume of Disease Control Priorities in Developing Countries, Third Edition (DCP3). In 2012, Dr. Debas was awarded the UCSF Medal for his academic and leadership contributions to the University.
BIOGRAPHICAL SKETCH

NAME  Dohan, Daniel Paul

POSITION TITLE  Professor of Health Policy and Social Medicine in Residence

eRA COMMONS USER NAME  ddohan

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

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<th>FIELD OF STUDY</th>
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<td>Harvard College, Cambridge MA</td>
<td>AB</td>
<td>1987</td>
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<td>University of California Berkeley</td>
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<td>University of California Berkeley</td>
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<td>1997</td>
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<td>University of California Berkeley</td>
<td>post-doc</td>
<td>1999</td>
<td>Health Policy</td>
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<tr>
<td>University of California Berkeley</td>
<td>post-doc</td>
<td>2001</td>
<td>Health Policy</td>
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A. Personal Statement

Background: My training is in sociology (emphasis on culture and inequality) and health policy. My research uses comparative qualitative research to examine how the culture of medicine shapes health care delivery. My current studies use a combination of focus groups, in-depth interviews, participant-observation, and survey methods.

Research: I am leading two primary research projects. I am PI for the Cancer Patient Deliberation study, an NCI-funded R01 examining how patients with advanced cancer make decisions about treatment and participation in clinical trials. I am Program Director for EngageUC – a three-year CTSA initiative to develop harmonized processes for biospecimen repository data collection and analysis across all five University of California campuses with medical centers. EngageUC includes a statewide community engagement activity as well as a randomized trial of different consenting methods.

Teaching/Mentoring: At UCSF, I teach qualitative research methods, mentor post-doctoral scholars and junior faculty members on career development awards, and lead training and program development as Associate Director at the Institute for Health Policy Studies.

Leadership and Administration: As Associate Director of the Institute for Health Policy Studies and co-Director of the UCSF-UC Hastings Consortium on Law, Science and Health Policy, I have responsibilities for developing new programs in education, research, and clinical/service. These include programs to translate research into law and policy; partnerships to provide legal services to vulnerable populations including children and seniors; and new degree programs including a Masters of Science in Health Policy and Law.

B. Positions and Honors

Positions and Employment

1986-87  Research Assistant, Professor Mary-Jo Delvecchio Good, Department of Social Medicine, Harvard Medical School, Boston MA
1990-92  Research Assistant, Professor Michael Hout, University of California (UC) Berkeley
1993  Teaching Assistant, Minority Opportunities in Sociological Training (MOST), American Sociological Association, Berkeley CA
1999-pesent  Associate, Center for Urban Ethnography, UC Berkeley
1999-2001 Post-Doctoral Research Fellow in Alcohol Studies, Alcohol Research Group, School of Public Health, UC Berkeley
2002-08 Assistant Adjunct Professor, Institute for Health Policy Studies and Department of Anthropology, History and Social Medicine, UC San Francisco
2008-2010 Director, UCSF Pathway to Discovery in Health and Society
2008-2013 Associate Professor, Institute for Health Policy Studies and Department of Anthropology, History and Social Medicine, UCSF
2009-2012 Associate Director, UCSF/UC Hastings Consortium on Law, Science and Health Policy
2005-present Associate Director for Training and Development, Institute for Health Policy Studies, UCSF
2012-present Co-Director, UCSF/UC Hastings Consortium on Law, Science and Health Policy
2013-present Professor, Institute for Health Policy Studies and Department of Anthropology, History and Social Medicine, UCSF

Other Experience and Professional Memberships
2003-present Member, UCSF Comprehensive Cancer Center; Center for Health and Community
2003-present Advisory Board, CARE (Cancer Awareness Resources and Education) SF General Hospital
2008-present Course Director, Qualitative Research Methods, Training in Clinical Research Program
2010-present Advisory Board: UCSF Participant Recruitment Services; Training in Clinical Research Program
2011-present NIH Study Section Review: Early Phase Chemoprevention Network; SBIR/STTR Stage 1; PCORI Study Section 10 (co-chair)

Honors
1987 AB Magna cum Laude with Highest Honors in Sociology, Harvard College, Cambridge MA
1987 Hoopes Prize, Senior Honors Thesis “Malpractice in Massachusetts: Physicians’ Perspectives,” Harvard College
1989 Regents Intern-Fellow, UC Berkeley
1994 Carol Hatch Ethnography Award, UC Berkeley Sociology Department
1998 Outstanding Graduate Student Instructor, UC Berkeley
2006 UCSF-Coro Faculty Leadership Collaborative

C. Selected peer-reviewed publications
Book

Articles


18. Schenker Y, Crowley-Matoka M, Dohan D, Tiver GA, Arnold RM, White DB. I don't want to be the one saying 'we should just let him die': intrapersonal tensions experienced by surrogate decision makers in the ICU. J Gen Intern Med. 2012 Dec; 27(12):1657-65. PMID: 23011253


C. Research Support

NIH UL1 TR000004-07S2 (Johnston and Dubinett, co-PIs) 9/24/12 – 6/30/16

National Center for Advancing Translational Sciences (NCATS)

Engaging University of California Stakeholders for Biorespository Research

The goal of EngageUC is to develop harmonized processes for collecting and including outpatient remnant samples in biorespository studies at the five University of California campuses with medical centers.

Role: Co-Program Director

NIH R01 CA152195 (Dohan) 05/31/10-04/30/15
National Cancer Institute
Before Consent: Cancer Patients' Deliberations about Early Phase Clinical Trials
This project uses mixed qualitative and quantitative methods to examine how cancer patients make decisions about participating in early phase trials of new cancer therapies.
Role: Principal Investigator

Completed Research Support

NIH ULI RR024131 (Grumbach and Schmidt, component co-PIs) 10/1/07 – 6/30/12
Clinical and Translational Science Award (CTSI)
Community Engagement and Health Policy (CE/HP) Program
This project uses qualitative research methods to evaluate the success of new partnerships between UCSF CTSI, government, and community groups that aim to improve public health in San Francisco.
Role: Co-Investigator

D55HP05165 (Bindman) 7/1/05-6/30/11
Health Resources and Services Administration
Faculty Development in Primary Care
The major goal for this project is to develop high quality academic general internists who are skilled in primary care research and are prepared to address research questions related to health and health care disparities.
Role: Co-Investigator

AHRQ R18 HS019167 (Tai-Seale) 10/01/10-07/31/12
Agency for Healthcare Research and Quality
Primary Care Transformation in a NCQA Certified Patient-Centered Medical Home
The study uses mixed methods research methods to examine and evaluate changes in processes, health outcomes, and costs linked to efforts to transform the provision of primary care services at a large multispecialty practice in Northern California.
Role: Co-Investigator

MRSGT-05-194-01-CPHPS (Dohan) 7/1/05-3/31/11
American Cancer Society
Clinical Trials Enrollment and Health Disparities
This career development award (Rena Pasick, mentor) uses comparative ethnography to examine the organizational factors that lead to under-enrollment of disadvantaged cancer patients in clinical trials.
Role: Principal Investigator

No Number (Dohan) 4/1/06-6/30/08
Measuring Quality in a Community-based Oncology Practice: A Pilot Study
Foundation for Integrative Oncology
This pilot project uses qualitative (ethnographic) and quantitative (medical records) data to examine how quality is understood in community-based oncology practice as well as to explore approaches for implementing quality-improvement in oncology care.
Role: Principal Investigator

R21-AA14855 (Dohan) 9/15/03-8/31/07
Poverty, Substance Use, and Stigma in Four Organizations.
NIH National Institute for Alcohol Abuse and Alcoholism
This project examines how different healthcare organizations, including emergency departments and cancer clinics, shape the stigma experiences of patients who are poor or have substance use problems. Qualitative research methods are used to document how patients manage stigma, to examine how these management strategies are affected by stigma processes in healthcare organizations, and to develop new theory.
Role: Principal Investigator
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
<th>eRA COMMONS USER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow, William H.</td>
<td>Professor of Health Economics</td>
<td>willdow</td>
</tr>
</tbody>
</table>

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornell University, Ithaca, NY</td>
<td>B.A.</td>
<td>1991</td>
<td>Economics</td>
</tr>
<tr>
<td>Yale University, New Haven, CT</td>
<td>Ph.D</td>
<td>1995</td>
<td>Economics</td>
</tr>
<tr>
<td>RAND, Santa Monica, CA</td>
<td>Postdoc</td>
<td>1995-97</td>
<td>Aging</td>
</tr>
</tbody>
</table>

**A. Personal statement**

William H. Dow is Henry J. Kaiser Professor of Health Economics and Associate Dean for Research at the UC-Berkeley School of Public Health, where he teaches Master’s and PhD health economics courses. In addition he is Director of the NIA-funded P30 UC-Berkeley Center on the Economics and Demography of Aging, and Dow has also served since 2005 as the founding Associate Director of the Berkeley Population Center. He is also a Research Associate at the National Bureau of Economic Research, and previously served as Senior Economist at the White House Council of Economic Advisers. Dow’s research analyzes economic aspects of health behaviors, and health and demographic outcomes. Recent work as PI has included a randomized trial of behavioral economics approaches to increasing HIV screening in San Francisco, and a randomized trial analyzing the effect of conditional cash transfers on risky sexual behaviors and STI outcomes. Honors include the John D. Thompson Prize for Young Investigators awarded by the Association of University Programs in Health Administration, and the Kenneth J. Arrow Award given by the International Health Economics Association.

**B. Positions and Honors**

**Positions and Employment**

- 1998: Fulbright Scholar, University of Costa Rica
- 1998-2004: Assistant Professor, Department of Health Policy and Administration, School of Public Health, University of North Carolina at Chapel Hill
- 2002-present: Research Associate, National Bureau of Economic Research
- 2004-2010: Associate Professor, Division of Health Policy and Management, School of Public Health, University of California at Berkeley
- 2010-: Professor, Division of Health Policy and Management, School of Public Health, University of California at Berkeley
- 2014-: Associate Dean for Research, School of Public Health, University of California at Berkeley

**Other Experience and Professional Memberships**

- 1995: Consultant, Inter-American Development Bank, Mexico City, Mexico
- 1997-2000: Consultant, RAND, Santa Monica, CA
Program Director/Principal Investigator (Last, First, Middle): DOW, William H.

2000- NIH grant review panel member on over 10 special emphasis panels
2005- Associate Director, Berkeley Population Center
2006-2012 Director of Berkeley PhD program in Health Services and Policy Analysis
2006-9 MacArthur Network on Socio-Economic Status and Health member
2009-2013 John Muir Health System: Physician Network Board of Directors
2012- Head, Division of Health Policy and Management, UC-Berkeley School of Public Health
2009-2013 Associate Director, UC-Berkeley Center on the Economics and Demography of Aging
2013- Director, UC-Berkeley Center on the Economics and Demography of Aging

Honors

1991 Summa Cum Laude and Phi Beta Kappa, Cornell University
2000 8th Annual Arrow Award (given by the International Health Economics Association for the best health economics paper published worldwide in 1999)
2001 John D. Thompson Prize for Young Investigators, awarded by the Association of University Programs in Health Administration
2008- Appointed to Henry J. Kaiser Endowed Chair at UC-Berkeley

C. Selected peer-reviewed publications


D. Research Support

Ongoing research projects

“Center on the Economics and Demography of Aging (CEDA)” (2009-2014)
Role: PI and Director
Agency: NIA 5P30AG012839-20
Center grant to promote UC-Berkeley research on the economics and demography of aging via a pilot grant mechanism, workshop support, and computer core.

“Berkeley Population Center” (2014-2018)
Role: Associate Director (PI: Goldstein)
Agency: NICHD 1R24HD073964-01A1
Funding for infrastructure support for UC-Berkeley’s campus-wide population center.

“Costa Rican Health and Retirement Survey” (2008-2014)
Role: PI
Agency: NIH R01 AG031716
Field a nationally representative survey of Costa Rican adults born 1945-1955, including baseline wave with extensive biomarkers, a two-year longitudinal follow-up, and long-term mortality tracking.

“Smoking Cessation Contracts with Social and Monetary Incentives” (2013-2017)
Role: PI
Agency: NIDA 1R01DA03584
Project fields randomized behavioral economics trial to test novel smoking cessation interventions.

“Neighborhood Effects on Weight Change and Diabetes Risk Factors.” (2009-2014)
Role: Co-Investigator
Agency: NIDDK R01
Project creates a longitudinal database of neighborhood characteristics to assess causal effects of neighborhood food environment on metabolic markers of risk among diabetics at Kaiser.

“Variability of Mortality Levels and Trends by State in the United States” (2011-16)
Role: PI (since 2014)
Agency: NIA 1R01AG040245
National Institute on Aging
Project adds state-level data to the Human Mortality Database.

“Studies in Global Mortality” (2011-15)
Role: PI (since 2014)
Agency: NIA R01AG11552
Project extends the Human Mortality Database to additional years and countries.

Recently Completed Research Support

Role: PI
Agency: NIH 1RC4AG039078-01
This project fields a behavioral economics experiment to test opt-out and incentive-based strategies for increasing disease screening rates.

“Long-Term Care Economic Insight Report” (2011-2012)
Role: PI
Agency: Brown Miller Communications for CA Department of Health Care Services
Projects California’s long-term care needs and informal caregiving burdens.

“Yo Puedo: Future Opportunities for Youth.” (2010-2012)
Role: Consultant
Agency: NICHD R21
Formative project to pilot randomized conditional cash transfers intervention to reduce unintended pregnancy among Latina youth in San Francisco.

“Employer-Level Effects of an Employer Health Spending Mandate” (2008-11)
Role: PI
Project fields a Bay Area Employer Health Benefits Survey to analyze the impact of San Francisco’s employer health spending ordinance (a “pay-or-play” mandate to increase health insurance coverage).

“The earned income tax credit and child obesity: modifying effects of food prices and neighborhood context.” (2009-11)
Role: Co-investigator
Agency: Robert Wood Johnson Foundation
Examine earned income tax credit effects on child obesity.

Role: PI
Agency: Hewlett Foundation, with supplemental funding from NBER Africa Project and World Bank
A randomized intervention trial to test the impact of cash incentives in reducing STI transmission in Tanzania.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Dworkin, Shari

POSITION TITLE
Professor and Associate Dean, Academic Affairs

eRA COMMONS USER NAME (credential, e.g., agency login)
SHARID

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Pennsylvania State University, University Park</td>
<td>BS</td>
<td>1990</td>
<td>Honors, Business</td>
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<tr>
<td>University of Maryland, College Park</td>
<td>MA</td>
<td>1994</td>
<td>Sociology</td>
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<tr>
<td>University of Southern California, Los Angeles</td>
<td>Ph.D.</td>
<td>2000</td>
<td>Sociology and Gender Studies</td>
</tr>
<tr>
<td>Columbia University, New York</td>
<td>MS</td>
<td>2005</td>
<td>Biostatistics</td>
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A. Personal Statement
Shari Dworkin, PhD, MS is a Professor in the Department of Social and Behavioral Sciences and Associate Dean of Academic Affairs in the UCSF School of Nursing. I am Affiliated Faculty at the Center for AIDS Prevention Studies and in the Global Health Sciences program. I am the Deputy Co-Director of the UC Global Health Institute Center of Expertise on Women's Empowerment and Health and I mentor the next generation of scientists to rigorously measure empowerment processes to understand how these influence HIV and violence outcomes. I am trained in sociology, biostatistics, qualitative methods and public health, and my work focuses largely on structural interventions for HIV prevention, treatment, and care. Specifically, my research has an emphasis on structural drivers of HIV/AIDS as these intersect with gender relations, focused on the need for economic empowerment (microfinance, land, and property rights) in HIV programming. I focus not only on the structural needs of women but also of men. Over the past 4 years, in Nyanza and Western Province, Kenya (where the proposed study will be carried out), I have been leading a collaboration (with the Kenyan Medical Research Institute-KEMRI and GROOTS Kenya) to examine the intersection of property rights, violence, and HIV/AIDS prevention within a local land and property program. I am also currently leading a collaborative study (along with the University of Cape Town and Sonke Gender Justice, a South Africa NGO) in four provinces of South Africa to examine the impact of a gender transformative HIV and anti-violence program on men’s violence and risk behaviors. Over the past several years, I have been Co-Investigator on Dr. Weiser and Dr. Cohen’s NIMH R34, SHAMBA MAISHA, an integrated agricultural and microfinance intervention with HIV positive farmers in Western Kenya. I provide expertise in microfinance, in qualitative methods, and provide expertise on the measurement of individual and household levels of empowerment. Domestically, I am Co-PI on an NIMH R01 seeking to measure relationship power amongst African-American and mixed race gay male couples in San Francisco and New York—and in this project with Colleen Hoff (PI), I am examining the relationship between masculinity, power and HIV risk.

B. Positions and Honors

Work Experience
2000-02  Visiting Assistant Professor, Pitzer College, Dept of Sociology, Claremont, CA
2002-05  Post-doctoral Research Fellow, HIV Center for Clinical and Behavioral Studies, Columbia University and NYPSI
2005-08  Assistant Professor, Behavioral Medicine Div. Dept of Psychiatry, Columbia University
2007-2008 Associate Director, NIMH T32 Postdoctoral Training Program in HIV Infection, Columbia University
2006    Junior Faculty Manuscript Award, HIV Center for Clinical and Behavioral Studies, NYPSI and Columbia University
2005-2008 Research Scientist, HIV Center for Clinical and Behavioral Studies, Columbia University and NYPSI
2007-08 Associate Director of Postdoctoral Training in HIV Infection, NIMH T-32, Columbia University and NYSPI
2008-Now Affiliated Faculty Member, Center for AIDS Prevention Studies, University of California, San Francisco
2008-Now Associate Professor, Dept of Social and Behavioral Sciences, UCSF
2008-Now Director, Sociology Doctoral Program, Dept of Social and Behavioral Sciences, UCSF
Present Vice Chair, Department of Social and Behavioral Sciences, UCSF
Present Affiliated Faculty, Global Health Sciences MS Degree Program, UCSF
Present Associate Editor, Archives of Sexual Behavior

Honors
2002 National Research Service Award, National Institute of Health, Columbia University, HIV Center For Clinical and Behavioral Studies
2004 Honorable Mention, Book Award (North American Society for Sociology of Sport).
2006 Junior Faculty Manuscript Award, HIV Center for Clinical and Behavioral Studies, Columbia University and NYPS
2010 Distinguished Scholarship Award, North American Society for the Sociology of Sport
2012 School of Nursing-Research Mentor Award
2012 UCSF Distinction in Mentoring Award

C. Selected peer-reviewed publications


**D. Research Support**

**Ongoing Research Support**

1R01MH089276 (Hoff,Dworkin) 06/21/10 -05/30/15

NIH/NIMH
Role: Co-PI

Power and Risk Among Gay Couples

This study seeks to examine relationship power among gay male couples who are African-American and mixed race. By examining power differentials among gay male couples, we will be able to understand how power supports or hinders couples in their efforts to prevent HIV transmission and acquisition.

R34 MH094215 (Cohen) 8/30/2011-7/31/2014

NIH/NIMH
Role: Co-Investigator

Shamba Maisha

The objective of the study is to test the hypothesis that a multisectoral agricultural intervention leads to improved health among families living with HIV in Kenya.

No number assigned 1/1/13- 7/31/14
Pangea Global AIDS Foundation  
Role: Consultant  
The objective of this contract is to produce a systematic literature review on the impact of economic empowerment and self-help groups on measures of women’s empowerment  

No Number Assigned (Meffert)  
CFAR  
Role: Co-Investigator  
Gender Based Violence and HIV: Assessing Mental Health Care Needs  
The objective of this study is to identify mental health and ARV adherence characteristics, determine the need for depression and PTSD care and empowerment factors that may influence the ability to obtain mental health treatment among HIV+GBV+ women in Nyanza Province, Kenya.

Completed Research Support  

No Number Assigned  
CommonHealth Action/CDC (Dworkin)  
Role: Senior Research Scientist  
Economic Intervention Development Project: Addressing the Social and Economic Determinants of HIV/AIDS  
The goal of this project is to develop a sustainable and adaptable economic intervention for low income African-Americans in the United States. The intervention is being developed for integration into health centers in the United States and will be evaluated for its impact on violence and HIV risks.

No Number Assigned (Dworkin)  
CFAR  
Laying the groundwork to test a science based gender transformative HIV/AIDS prevention intervention with heterosexually active men in South Africa  
The study will help to further an understanding of masculinity, gender relations, and health in South Africa and will help to improve the quality of HIV prevention programs at Sonke and their efficacy with heterosexually-active men,

No Number Assigned (Dworkin)  
UCSF RAP  
Property Rights and HIV Prevention: Examining the Impact of a Community Land and Property Watchdog Model in Nyanza and Western Provinces, Kenya  
This study seeks to fill a gap in knowledge around intersection between HIV/AIDS and property rights by examining the GROOTS WatchDog model in two Kenya’s highest province districts: Rachuonyo District, Nyanza Province and Kakemega District, Western Province.

No Number Assigned (Camlin)  
CFAR  
Role: Co-Investigator  
Sex Differences in Patterns of Migration and HIV Risk in Western Kenya  
This study will lay the groundwork for a collaboration between UCSF and Kenyan organizations for a subsequent, larger mixed-methods study to assess the contribution of female migration to the HIV/AIDS epidemic in western Kenya, and inform development of an economic HIV prevention intervention with female migrants.

5U62PS924511-05 (Cohen)  
CDC  
Integration of HIV Care and Treatment into MCH in Migori District, Kenya  
The study seeks to determine the most effective way to reach and provide pregnant women with accessible comprehensive and high quality HIV care and treatment.
A. Personal Statement

I bring my education and professional experience in epidemiology and biostatistics to the PhD Program in Global Health Sciences. I am currently Assistant Professor in the Department of Epidemiology & Biostatistics at the University of California, San Francisco. I have research experience in HIV/AIDS, cryptosporidiosis and other waterborne infectious diseases, pneumococcal vaccine effectiveness among HIV-infected individuals, influenza, measles, and public health preparedness and emergency response. I have served as Project Director and Lead Investigator on several research studies in addition to my professional experience working in local and state public health agencies and the San Francisco Veteran Affairs Medical Center. I was Project Director for a randomized controlled trial of a hand hygiene and respiratory etiquette intervention to reduce the occurrence of influenza-like illness among university students. I was the Lead Investigator of a CDC-funded study that examined local and state health departments’ epidemiology and surveillance response to pandemic influenza A (H1N1) in 2009-2010, as well as issues of surge capacity and mutual aid for infectious disease emergency situations. I am also the Lead Investigator of a UCSF Models of Infectious Disease Agent Study that examines the effectiveness of different components of measles control among a highly vaccinated population. In addition, I am co-instructor of a biostatistics course in the Masters Program in Global Health Sciences at UC San Francisco and Assistant Course Director of a statistical computing course in the Training in Clinical Research Program.

B. Positions and Honors

1994 – 1995 Research Assistant, Division of Tuberculosis Control, San Francisco Department of Public Health
1996 Research Associate, Reproductive Epidemiology Section, California Department of Health Services
1996 Graduate Student Instructor, Introduction to Advanced Epidemiologic Methods, PH250A, School of Public Health, University of California, Berkeley
1997 Researcher, Northern California Institute of Research and Education, San Francisco Veterans Affairs Medical Center
1998 Graduate Student Instructor, Introduction to Advanced Epidemiologic Methods, PH 250A, School of Public Health, University of California, Berkeley
1998-1999 Graduate Student Researcher, Water Environment Research Foundation, University of California, Berkeley
1997-1999 Graduate Student Researcher, Office of AIDS, California Department of Health Services
2000 Statistician, Viral Hepatitis Research, San Francisco Veterans Affairs Medical Center
2000-2003 Communicable Disease Epidemiologist, Community Health Epidemiology and Disease Control, San Francisco Department of Public Health
Project Director, REDucing Influenza-like Illness among University Students (REDI-US) Study
Director, Epidemiology Preparedness and Informatics Program, Center for Infectious Diseases and Emergency Readiness, School of Public Health, University of California, Berkeley
Lecturer, Division of Epidemiology, School of Public Health, University of California at Berkeley
Lead Investigator, Epidemiology Networks (EpiNet) in Action Study
Lead Investigator, UCSF MIDAS measles study
Instructor, Masters Program in Global Health Sciences, University of California at San Francisco
Research Epidemiologist, Francis I. Proctor Foundation International, University of California at San Francisco
Assistant Professor, Department of Epidemiology & Biostatistics, University of California at San Francisco

C. Selected peer-reviewed publications


D. Research Support

Ongoing Research Support

Research Grant: 1U01GM087728-01A1 (PI: Travis C. Porco) 08/01/11-07/31/16
Source: National Institute of General Medical Sciences
Title: Modeling Contact Investigation and Rapid Response
Role: Lead Investigator, The Epidemiology of Imported Measles in California

Completed Research Support

Research Grant: U90/CCU924248 (PI: Tomas Aragon) 09/30/06-09/29/08
Source: Centers for Disease Control and Prevention (CDC)
Title: Reducing Influenza-like Illness in University Students (REDI-US) Study
Summary: Randomized controlled trial to evaluate effectiveness of non-pharmaceutical interventions in reducing influenza-like illness and influenza.
Role: Project Director

Research Grant: P01TP000295 (PI: Tomas Aragon) 09/30/09-12/31/12
Source: Centers for Disease Control and Prevention (CDC)
Title: Cal PREPARE: Public Health Systems Research using Emergency Preparedness And Response Events is a CDC Preparedness & Emergency Response Research Center (PERRC)
Summary: A study of the epidemiologic and surveillance response to infectious disease emergencies and workforce capacity among local health departments in California and the state department of health in Hawaii.
Role: Lead Investigator, Epidemiology Networks in Action Study
Professor Sir Richard Feachem
KBE, CBE, BSc, PhD, DSc(Med), FREng, HonFFPHM, HonDEng

Professor Sir Richard G A Feachem is Director of the Global Health Group at UCSF Global Health Sciences, and Professor of Global Health at both the University of California, San Francisco and the University of California, Berkeley. He is also a Visiting Professor at London University and an Honorary Professor at the University of Queensland.

From 2002 to 2007, Sir Richard served as founding Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria and Under Secretary General of the United Nations. During this time, the Global Fund grew from scratch to become the world’s largest health financing institution for developing countries, with assets of US $11 billion, supporting 450 programmes in 136 countries.

From 1999 to 2002, Professor Feachem was the founding Director of the Institute for Global Health at UCSF and UC Berkeley. From 1995 until 1999 Dr. Feachem was Director for Health, Nutrition and Population at the World Bank. Previously (1989-1995), he was Dean of the London School of Hygiene and Tropical Medicine. Professor Feachem served as Chairman of the Foundation Council of the Global Forum for Health Research; Treasurer of the International AIDS Vaccine Initiative; Council Member of Voluntary Service Overseas; and on numerous other boards and committees. He was a member of the Commission on Macroeconomics and Health, and the Commission on HIV and Governance in Africa, and the Commission on Investing in Health. He has worked in international health and development for 40 years and has published extensively on public health, health policy and development finance.

Professor Feachem holds a Doctor of Science degree in Medicine from the University of London, and a PhD in Environmental Health from the University of New South Wales. In 2007 he was awarded an Honorary Doctorate in Engineering by the University of Birmingham. He is a Fellow of the Royal Academy of Engineering and an Honorary Fellow of the Faculty of Public Health Medicine of the Royal College of Physicians and of the American Society of Tropical Medicine and Hygiene. In 2002 he was elected to membership of the Institute of Medicine of the US National Academy of Sciences. Sir Richard was knighted by Her Majesty Queen Elizabeth II in 2007. He was awarded the 2010 Sir Frank Whittle Medal by the Royal Academy of Engineering.
A. Personal Statement

My extensive prior and current research experience in disaster preparedness and response across a wide range of settings, including hospitals, makes me uniquely qualified to participate in the Graduate Group for the PhD in Global Health Sciences. I am an interdisciplinary occupational and environmental health and safety researcher with over 20 years of experience in conducting complex, large scale, multi-method research studies. My work focuses on four major areas: high risk work settings and work occupations and the role of safety climate in occupational risk; worker/patient risk of adverse outcomes and role of safety climate; disaster preparedness and occupational health, and the translation of epidemiological research findings into organizational practices and regulatory control. My research has been continuously funded since 1990, with support from CDC/NIOSH, NIH, AHRQ, NSF, NIJ, DOD, HUD and numerous foundations.

In 2002, as PI, I led a large interdisciplinary team on the landmark World Trade Center Evacuation Study, which examined the individual (including psycho-social factors), organizational, and structural factors that affected evacuation time and short and long term morbidity. The results of this study directly resulted in the first changes to the New York City high rise fire safety codes in more than 30 years. In 2009, I conducted and published the first study on disaster preparedness of home health care paraprofessionals and recently wrote a paper entitled “Emergency Preparedness in a Sample of Persons with Disabilities”. Finally, I have over 20 years of direct experience as a mentor to numerous post-baccalaureate, graduate students and junior faculty.

B. Positions and Honors

1980-1983  Associate Director, Department of Biological Safety, Yale University, New Haven, CT.
1980-1987  Program Director, Occupational Health and Safety Training Program, Yale University, New Haven, CT.
1983-1987  Director, Department of Biological Safety, Yale University, New Haven, CT.
1989-1990  Program Coordinator, and Research Associate, Division of Environmental Health Engineering, Department of Environmental Health Sciences, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD.
1995-1997  Senior Research Associate, Department of Environmental Health Sciences, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD.
1997-1998  Assistant Scientist, Department of Environmental Health Sciences, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD.
1998-2000  Associate Scientist, Department of Environmental Health Sciences, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD.
2000-2006  Assistant Professor, Mailman School of Public Health, Columbia University, New York, NY.
2001-2006  Associate Professor, Mailman School of Public Health, Columbia University, New York, NY.
2006-2011  Professor, Mailman School of Public Health, Columbia University, New York, NY.
2006-2011 Professor, School of Nursing, Columbia University, New York, NY.
2008-2011 Associate Dean of Research Resources, Mailman School of Public Health, Columbia University, New York, NY.
2011-present Professor Emerita, Mailman School of Public Health, Columbia University, New York, NY.
2011-present Professor, Department of Epidemiology and Biostatistics and Philip R. Lee Institute for Health Policy Studies, School of Medicine, University of California, San Francisco.
2011-present Adjunct Professor, Dept. of Community Health Systems and Division of Occupational and Environmental Health Nursing, School of Nursing, University of California, San Francisco, CA.

Honors and Awards
1987 Kellogg Interdisciplinary Scientist in Environmental and Occupational Health Fellowship
1997 Delta Omega Honorary (Public Health) Society
2004 Fellow, New York Academy of Medicine
2004 Fellow, Society of Healthcare Epidemiology
2005 Davis Lectureship, University of Chicago
2005 Annual International Sharps Injury Prevention Award
2006 Survivors’ Salute, WTC Survivors’ Network
2007 City of New York Fire Commissioner’s Special Commendation Certificate of Appreciation
2010 Renfield Lectureship, Visiting Nurse Service of New York, New York, NY
2012 Invited Speaker: Center for Occupational and Environmental Health, Lela Morris Annual Symposium, Oakland, CA.
2013 Colloquium Lectureship, Pennsylvania State University, Healthcare Management & Strategy Department of Health Policy & Administration, State College, PA
2014 Keynote Speaker, British Columbia Funeral Association Conference, Victoria, BC, Canada

Professional Activities (current)
2011-present Member, Chancellor’s Council on Faculty Life - UCSF
2011-present Chair, Faculty Development Committee - UCSF
2009-present Senior Mentor, Emerging Scholars Interdisciplinary Network
2011-present Member, Institutional Biosafety Committee - UCSF
2011-present Member, Mentoring Committee - UCSF
2013-present Member, Chancellor’s Committee on the Status of Women, UCSF
2013-present Member, 18 Professorial Organizations, including APHA, AAAS, NFPA, APA, etc.
2013-present Member, Editorial Boards: American Journal of Disaster Medicine, Journal of Emergency and Disaster Medicine, Injury Epidemiology

C. Selected Peer-reviewed Publications and book chapters (Selected from over 100 publications)
*mentees or advisees


D. Research Support

Current Funding

R01 National Institute of Health General Medical Sciences Gershon (PI) 07/01/13-06/30/17
Biomedical Research Career Identification in Graduate Education (BRIDGE)
This four-year project is to determine the effectiveness of a theory-driven, multi-modal intervention designed to increase self-efficacy, outcome expectations, scientific identity, and persistence in pursuing a science research career among underrepresented minority (URM) and non-URM early stage doctoral students.

R21 National Institutes of Nursing Research (NINR) Gershon (PI) 08/01/13-07/31/15
The Role of Social and Behavioral Factors on Disaster Planning in Home Care
The goal of this 2-year project is to explore the expectations about emergency preparedness of elderly adults in two high risk cities: New York City and San Francisco; and compare their expectations to the actual capacity of home care agencies and local emergency response agencies. The information obtained from this study can impact preparedness at multiple levels in home care, and can also have an impact at the national levels of emergency planning and response.

National Science Foundation (NSF) Gershon (PI) 10/01/12-09/30/14
Systems-Level Mass Fatality Preparedness
The major goals of this project are to identify the preparedness and response capabilities of the mass fatality management infrastructure, and in particular, the offices of the medical examiners/coroners, state and local health departments, state and local offices of emergency management, DMORT teams, the faith-based community, and the death care sector (e.g., the funeral industry and associated services) in the United States. The sector's ability to manage mass fatalities caused by earthquakes, terrorism, pandemics, and other catastrophic incidents in a prompt and dignified way is a concern to stakeholders within the sector, and externally, with their response partners and the general public.

Recently Completed Research Support (Selected)

Association of Schools of Public Health/Centers for Disease Control and Prevention Gershon (PI)
10/01/2002-09/30/2007
The World Trade Center Evacuation Study
The study was designed to identify the individual, organizational, and structural factors associated with the evacuation of the World Trade Center Towers One and Two on September 11, 2001. A 3-year, 5-phase, multi-disciplinary collaborative study was organized to examine the independent and joint effects of the organizational factors (e.g., drills, evacuation procedures), individual factors (e.g., knowledge, beliefs, attitudes, influence of subjective norm, prior experiences, demographic, and health status factors), and structural factors (such as environmental cues to action, lighting, communication systems) on evacuation behaviors.
Participatory action research (PAR) teams comprised of evacuees, researchers, and advisors developed a set of recommendations for improvement in high rise evacuation. This study resulted in multiple publications.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Glymour, M Maria

POSITION TITLE
Associate Professor
Program Director, PhD in Epidemiology & Translational Science

eRA COMMONS USER NAME (credential, e.g., agency login)
mglymour

EDUCATION/TRAINING
(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>University of Chicago, The College</td>
<td>A.B.</td>
<td>06/96</td>
<td>Biology</td>
</tr>
<tr>
<td>Harvard School of Public Health, Department of Health and Social Behavior</td>
<td>S.M.</td>
<td>06/00</td>
<td>Social Epidemiology</td>
</tr>
<tr>
<td>Harvard School of Public Health, Department of Society, Human Development, and Health</td>
<td>S.D.</td>
<td>06/04</td>
<td>Social Epidemiology</td>
</tr>
<tr>
<td>Harvard School of Public Health, Department of Society, Human Development, and Health</td>
<td></td>
<td>06/05</td>
<td>Post-doctoral fellow</td>
</tr>
<tr>
<td>Columbia University, Department of Epidemiology, Institute for Social and Economic Research and Policy</td>
<td></td>
<td>06/08</td>
<td>Post-doctoral fellow (Robert Wood Johnson Foundation Health and Society Scholar)</td>
</tr>
</tbody>
</table>

A. Personal Statement
I am a social epidemiologist with a focus on chronic conditions, health inequalities, and healthy aging. I have a strong research track record, with both federal and foundation funding for my research, and well over 100 publications in peer-reviewed journals, invited editorials or commentaries, and book chapters. My research focuses on stroke, dementia, and healthy aging, with a strong emphasis on research methods to support causal inference from observational data.

I serve as program director for the PhD in Epidemiology and Translational Science and see many synergies with a PhD program in global health. I have established a clear and successful track record of mentoring. My mentees at every level (masters students, pre-doctoral trainees, and post-doctoral fellows) have fared very well both while working directly with me and afterwards. As shown in the tables section, students and post-docs who have worked with me finish with strong publication and funding records, and find appropriate subsequent employment (appropriate to their level). In recognition of my commitment to students, in 2012 (while an assistant professor at the Harvard School of Public Health), I was awarded the school-wide mentoring award. While at Harvard, I served as the associate director of the Harvard site for the Robert Wood Johnson Health and Society Scholars program.

B. Positions and Honors

Positions and Employment

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<tr>
<th>Year</th>
<th>Title</th>
<th>Institution</th>
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<tr>
<td>2005-2007</td>
<td>Instructor, Department of Society, Human Development, and Health</td>
<td>Harvard School of Public Health</td>
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<tr>
<td>2007-2013</td>
<td>Assistant Professor, Department of Society, Human Development, and Health</td>
<td>Harvard School of Public Health</td>
</tr>
<tr>
<td>2013-present</td>
<td>Associate Professor, Department of Epidemiology and Biostatistics</td>
<td>University of California at San Francisco</td>
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</table>

Honors

2012  Harvard School of Public Health Mentoring Award
2013  Columbia University Psychiatric-Neurological Epidemiology Early Investigator Award, Columbia
C. Selected Peer-Reviewed Publications (selected to emphasize publication of mentees, from 98 peer reviewed articles; 20 reviews and commentaries; and 9 book chapters)


12. Liu SY, Chavan NR, Glymour MM. Type of high-school credentials and older age ADL and IADL limitations: is the GED credential equivalent to a diploma? Gerontologist. 2013 Apr; 53(2):326-33. PMID: 22859434


D. Research Support

On-going Research Support

10SDG2640243 Glymour (PI) 01/01/2010-12/31/2013
American Heart Association vChanges in modifiable risk factors and risk of cardiovascular disease in a national sample of black and white Americans.

We will validate self-reported cardiovascular outcomes in the Health and Retirement Study by linking with CMS data, and examine the relationship between changes in major cardiovascular risk factors, in particular depressive symptoms, and onset of cardiovascular disease.

Role: PI

1R21 AG034385 Glymour (PI) 04/01/2010-03/31/2014
NIH/NIA vFunctional impairment from stroke: an exploratory study of disparities
We use data from the Health and Retirement Study, a national longitudinal study of Americans aged 50 and
older, to study factors that improve people's functioning after stroke.
Role: PI

W81XWH-12-1-0143  Glymour (PI)  04/20/2012-04/19/2015
US Army Medical Research (USAMRAA) vSocial Resources That Preserve Functional Independence After Memory Loss
A large, diverse, longitudinal study of middle aged and older Americans to identify modifiable social factors that help individuals preserve functional independence as long as possible even in the context of declining memory or cognitive impairment.
Role: PI

R01 AG039588  Howard (PI)  09/01/2011-08/31/2016
NIH/NIA vChildhood SES Factors: impact on age related cognitive and vascular health
This project is to incorporate an assessment of early life social conditions into the ongoing REGARDS (REasons for Geographic And Racial Disparities in Stroke) cohort. Collection of new data from cohort members and linkage of previously collected information on residential history at the city/state level to historical information on policies and social conditions prevailing in each place of residence.
Role: Co-I (PI of the Subcontract to HSPH)

R01 MD 006064  Osypuk (PI)  09/01/2010-08/31/2014
NIH vEffects of a housing policy experiment on youth behavioral problems
We analyze data from a social experiment of voluntary neighborhood relocation. My role is to assist with instrumental variable and longitudinal data analyses.
Role: Co-I

Completed Research Support

R21 HD 066312  Osypuk (PI)  07/01/2010-06/30/2012
NIH/NIHHDvEffects of a neighborhood experiment on adolescent female psychological distress
This work examines the Moving To Opportunity housing experiment, using instrumental variables analysis. My role is to assist with implementation of instrumental variable models and longitudinal data analysis. Role: Subcontract PI (with co-investigators on the current proposal
Role: Co-I (PI of the subcontract to HSPH)

1R21 AG03788  Subramanian (PI)  09/01/2010-08/31/2012
NIH/NIAvWidowhood and Mortality: Modifying Role of Individual and Community Context
Using data from HRS, we will examine whether increased mortality following widowhood is modified by individual, family, or neighborhood factors that provide alternative supportive resources to the surviving spouse.
Role: Co-I

1RC4MH092707  Kubzansky (PI)  09/01/2010-08/31/2013
NIH/NIMHvUsing GWAS Data for Enhanced Mendelian Randomization Studies
We propose capitalizing on the GWAS data to allow important innovations in MR studies. With data from the Nurses’ Health Study and Health Professionals Follow-up Study, we are using polygenic risk scores as instrumental variables. My role focuses on leading the methods component of this research, including the instrumental variable analyses and validation tests.
Role: Co-I
Eric Goosby, M.D.

PHS 398/2590 (Rev. 06/09)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME  
Goosby, Eric, Paul

POSITION TITLE  
HS Clinical Instructor

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Princeton University Princeton, New Jersey</td>
<td>AB (Cum Laude)</td>
<td>06/74</td>
<td>Biology</td>
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<tr>
<td>University of California San Francisco School of Medicine San Francisco, California</td>
<td>Doctor of Medicine (Highest Honors)</td>
<td>06/78</td>
<td>Medicine</td>
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<td>University of California Clinics and Hospitals</td>
<td>Internship</td>
<td>06/79</td>
<td>Internal Medicine</td>
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<td>University of California Clinics and Hospitals</td>
<td>Residency</td>
<td>06/81</td>
<td>Internal Medicine</td>
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<tr>
<td>University of California Moffitt</td>
<td>Chief Resident</td>
<td>06/81</td>
<td>Primary Care Program</td>
</tr>
<tr>
<td>UCSF Dept. of Medicine/San Francisco General Hospital UCSF Hospitals and Clinics</td>
<td>Research Fellowship</td>
<td>06/83</td>
<td>Kaiser Family Foundation General Internal Medicine1 year course - methodology, epidemiology, statistics ID Clinical year</td>
</tr>
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</table>

A. Personal Statement

B. Positions and Honors

Positions and Employment

1981-1983 Clinical Instructor, Department of Medicine, University of California, San Francisco San Francisco General Hospital
1983-1991 Assistant Clinical Professor, Department of Medicine; Department of Family and Community Medicine; Department of Nursing (NP Program), University of California, San Francisco
1988-1997 Research Scientist, HIV Treatment Research Unit, Department of Medicine/ Psychiatry/Epidemiology, University of California, San Francisco San Francisco General Hospital
1991-1994 Director (Administrate the distribution of funds and the planning of services for HIV infected people in 52 epicenters in the United States and territories), Division of HIV Services; Ryan White Care Act Title I and II; Bureau of Health Resources Development, U.S. Public Health Service/Health Resources and Services Administration Health Resources Development Administration U.S. Public Health Service
1994-2001 Director of the Office of HIV/AIDS Policy (Responsible for HIV/AIDS policy in the Department of Health and Human Services in the areas of Prevention, Treatment and Research. Full budgetary responsibility; senior interface with Congress with all AIDS-related appropriations; departmental interface with the White House Office of Management and Budget (OMB) and National AIDS Policy Office (served as Deputy Director 2000-2001), Public Health Service Office of Public Health and Science, Office of the Secretary Department of Health and Human Services
1997-1998 Interim Director (Responsible for HIV/AIDS policy across Departments in the Government
(Dept of Health and Human Services; Dept of Defense; Veterans Administration; Justice; State; etc). Serve as the principal participant in the White House Domestic Policy Council meetings. Report directly to the President as his senior advisor on HIV related issues. This is a sub-cabinet position reporting directly to the President), National AIDS Policy Office, White House

2000-2001 Deputy Director (Responsible for supporting the Director of National AIDS Policy Office in the White House in all cross-department dealings. Helped conceive of and orchestrate the dialogue for the Minority AIDS Initiative, reauthorization of the Ryan White CARE Act, Needle Exchange and the need for a coordinated response in the global Pandemic of HIV. Represented the NAPO Director and the President in many international meetings for WHO, UNAIDS, USG, NSC, UK and other G8 functions. This job was done concurrent with the Director of HIV/AIDS Policy at DHSS), National AIDS Policy Office, White House

2001-2009 Chief Executive Officer and Chief Medical Officer (The Pangaea Global AIDS Foundation is focused on the development of a continuum of medical and support services for the diagnosis and treatment of sexually transmitted diseases, opportunistic infections associated with HIV, and the safe introduction of anti-retroviral medications to populations in resource poor areas in Sub-Saharan Africa, Eastern Europe, China, SE Asia and India), Pangaea Global AIDS Foundation

2006-2013 Clinical Professor of Medicine (Volunteer Faculty), Department of Medicine, University of California, San Francisco

2009-2013 Ambassador at Large and U.S. Global AIDS Coordinator (Ambassador Eric Goosby serves as the United States Global AIDS Coordinator, leading all U.S. Government international HIV/AIDS efforts. In this role, Ambassador Goosby oversees implementation of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), as well as U.S. Government engagement with the Global Fund to Fight AIDS, Tuberculosis and Malaria, President's Emergency Plan for AIDS Relief (PEPFAR), U. S. Department of State

2012-2013 Special Representative (Ambassador Eric Goosby serves as the head of the Office of Global Health Diplomacy, leading diplomatic efforts to advance the United States' global health mission to improve and save lives and foster sustainability through a shared global responsibility as well as providing diplomatic support in implementing the Global Health Initiative's principles and goals), Office of Global Health Diplomacy, U.S. Department of State

Other Experience and Professional Memberships

1981-present American Board of Medical Specialties Certification: Internal Medicine
1990-present International AIDS Society (IAS)

Honors

1978 Gold Headed Cane Honor Society for Exemplary Clinical Skills, University of California, San Francisco - School of Medicine
1981 H. Kahn Award for Most Admissions in One Night, University of California, San Francisco - Moffitt Hospital (#27) Medical Resident II
1986 Henry J. Kaiser Award for Excellence in Teaching Clinical Medicine (National Award) | Class 1986, University of California, San Francisco - School of Medicine
1991 A.O.A. Medical Honor Society - Induction as Faculty Member, University of California, San Francisco - School of Medicine
1991 Resolution of Appreciation for Work in the Minority AIDS Community, City and County of San Francisco, Supervisors Willie Kennedy and Doris Ward
1991 Certificate of Appreciation for Clinical Work with Injection Drug Users, National Black Coalition Against AIDS
1994 Administrator Award for Excellence, Health Resource Service Administration (HRSA)
1994 Award for General Excellence, HRSA Bureau of Health Resources Development
1995 Award for the Conceptualization and Implementation of the Concept of the Continuum of Care for HIV Infected People, Division of HIV Services/HRSA/BHRD
1998 Secretarial Certificate of Acknowledgement for Leadership in the Development of the Standards for the Use of Antiretroviral in Adults, Adolescents, Pregnant Women, Health Workers, and Children, Department of Health and Human Services, Office of the Assistant Secretary of Health
1998 Secretarial Certificate of Acknowledgement for Leadership in the Development of the DHHS Needle Exchange Position, Department of Health and Human Services, Office of the Secretary
1999 Annual Award Presentation, San Francisco AIDS Foundation
2001 Secretarial Award for the Conceptualization and Implementation of the Minority AIDS Initiative, Department of Health and Human Services, Office of the Secretary
2001 Leadership Award for the Minority AIDS Initiative, Black Coalition on AIDS
2001 Legislative Recognition for Reauthorization of the Ryan White Care Act; and Leadership in the Minority AIDS Initiative, Department of Health, State of Illinois
2001 White House Award: Recognition for Work as the Deputy Director, National AIDS Policy Office - William J. Clinton
2001 Heroes in the Struggle Honoree, African American AIDS Policy and Training Institute, Black AIDS Institute, Los Angeles, California
2001 Recognition at Annual Award Dinner, AIDS Health Project, University of California, San Francisco
2004 Hero in Medicine Award, International Assoc. of Physicians in AIDS Care
2007 Community Service Award, 360: The Positive Care Center, University of California, San Francisco
2013 Recognition Award for the President's Emergency Plan for AIDS Relief (PEPFAR) from the President and Ministers of Health, Rwanda, South Africa, Mozambique, Namibia, Botswana, Kenya
2013 Distinguished Service Award from Secretary of State Hillary Rodham Clinton, U.S. Department of State, Washington, D.C.
2014 International AIDS Society (IAS) Presidential Award, International AIDS Society, Melbourne, Australia
2014 Research in Action Award (RIAA), Treatment Action Group (TAG), New York, New York

C. Selected Peer-Reviewed Publications

D. Research Support
BIOGRAPHICAL SKETCH

NAME Roly Gosling

POSITION TITLE Associate Adjunct Professor

eRA COMMONS USER NAME

EDUCATION/TRAINING

<table>
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<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>University of Nottingham, UK</td>
<td>BMedSci</td>
<td>1989-1992</td>
<td>Behavioral Sciences</td>
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<tr>
<td>University of Nottingham, UK</td>
<td>BM,BS</td>
<td>1989-1994</td>
<td>Medicine and surgery</td>
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<td>University of London, UK</td>
<td>MSc</td>
<td>1997-1998</td>
<td>Infection and Health in the Tropics</td>
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<tr>
<td>University of London, UK</td>
<td>PhD</td>
<td>2006-2011</td>
<td>Epidemiology</td>
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</table>

A. Personal Statement

I am currently Associate Adjunct Professor in Epidemiology and Biostatistics and Lead of the Malaria Elimination Initiative at the UCSF Global Health Group. My current research aims to address surveillance, diagnosis and treatment challenges for malaria elimination in low transmission countries in southern Africa and the Asia-Pacific. I am the Co-PI on a major grants from the Bill and Melinda Gates Foundation and PI on a grant from the Novartis Foundation for Sustainable Development. Both grants cover several research studies all focused on malaria elimination and include research on the epidemiology of malaria at low transmission, potential interventions using GIS systems, social networks and quality improvement and clinical trials in drugs that can be used for malaria elimination. I have mentored 18 pre-doctoral students and 2 post-doctoral students. My trainees have continued into academic and programmatic positions in global health and several are leading malaria clinical trials. I am a member of the Surveillance, Monitoring and Evaluation Technical Expert Group on malaria for the World Health Organization.

B. Positions and Honors

Positions and Employment
1994-1996 Medical intern, Somerset and Shrewsbury Hospitals UK
1996- 1997 Senior House Officer in emergency medicine and pediatrics, John Radcliffe and Whittington Hospitals, UK
1998-2000 Senior House Officer in pediatrics and neonatology, Royal Free Hospital, UK
2000-2002 Clinical Research Fellow, University College London, UK based in Tanzania
2002-2004 Specialist Training in Medical Microbiology, Royal Free Hospital, UK
2004-2008 Clinical Lecturer, London School of Hygiene and Tropical Medicine, UK based in Tanzania
2008-2010 Specialist Training in Medical Microbiology, Royal Free Hospital, UK
2011-present Associate Adjunct Professor, Malaria Elimination Initiative, Univ. of California, San Francisco.

Other Experience and Professional Membership
1999-present Member of the Royal College of Pediatrics and Child Health
2010-present Member of the Royal College of Pathologists
2010-present Member, Malaria Elimination Group
2011-present Academic editor, PLoS ONE
2011-present Co-Coordinator, Asia Pacific Malaria Elimination Network Secretariat
2011-present Member, Asia Pacific Malaria Elimination Network, Vivax Working Group

Honors
1999 Employee recognition award, Royal Free Hospital.

C. Selected peer-reviewed publications (Selected from 45 peer-reviewed publications)

Most relevant to the current application


Additional recent publications of importance to the field (in chronological order)


C. Research Support.

ONGOING

A115501 (Co-PI) 08/01/2010 - 07/31/2015
Bill and Melinda Gates Foundation $2,613,818 direct/yr1
Building the Evidence Base for Malaria Elimination

A121292 05/01/2013 - 04/30/2014

(PI)
Bill and Melinda Gates Foundation $543,262 direct/yr1
Preparation of Background Papers to Inform the Foundation Malaria Strategy

A122394 (Co-PI) 01/01/2014 - 12/31/2016
Bill and Melinda Gates Foundation $3,736,567 direct/yr1
Shrinking the Malaria Map: Maintaining Progress Towards Malaria Eradication

A122666 01/01/2014 - 12/31/2017
Novartis Foundation for Sustainable Development
Eliminating Plasmodium falciparum with ACTs in sub-Saharan Africa

COMPLETED

Project Number: OPP 1008337 GCE (Gosling) 10/01/2009-04/30/2011
Source: Gates Grand Challenge for Exploration, Bill and Melinda Gates Foundation
Title: Towards eliminating malaria in malaria endemic Africa: Targeting hotspots in rural poorly resourced settings-A Pilot study.
Major goals: To define and describe malaria hotspots and determine possible interventions to target them
Role: Principal Investigator

Project Number: 28579 (Daniel Chandramohan) 04/01/2004-##/2009
Source: Bill and Melinda Gates Foundation
Title: Drug options for intermittent preventive treatment for malaria in infants in an area with high resistance to sulfadoxine/pyrimethamine: An evaluation of short and long-acting antimalarial drugs
Major goals: To establish the efficacy of both long and short acting drugs for the purpose of IPTi in different transmission settings.
Role: Project Leader

Project Number: 38773 (Gosling) 08/01/2006-08/01/2010
Source: Bill and Melinda Gates Foundation
Title: Measurement of antimalarial drug resistance in the IPTi Trials
Major goals: To assess the relationship between efficacy of IPTi drugs and drug resistance
Role: Principal Investigator
A. Personal Statement

Areas of Expertise. My oral disease research interest centers on the epidemiology, etiopathogenesis and management of oral soft tissue diseases, notably those associated with HIV infection and other causes of immunosuppression, as well as aphthous ulcers, Sjögren's syndrome, and oral cancer/pre-cancer. These topics have led to broad explorations in epidemiology, public/global health, policy, implementation science and other areas. I served until 2005 as founding Director of the UCSF Oral AIDS Center (OAC), which was supported by the NIDCR for 20 years. The OAC continues its research on the pathogenesis of oral lesions associated with HIV infection. I am part of a team looking into the molecular pathogenesis of EBV-associated hairy leukoplakia, a lesion that Deborah Greenspan and I discovered. In conjunction with Dr Caroline Shiboski, I am co-PI of the UCSF site of the international oral AIDS program that is part of the NIAID-funded AIDS Clinical Trials Network (ACTG). In the Oral AIDS/HIV Collaborative Alliance (OHARA), we work with teams at North Carolina and Case examining oral lesions as markers of immunosuppression, treatment initiation and HAART failure in a worldwide network of centers. We also conduct clinical trials of agents and modalities to treat oral opportunistic infections, neoplasms, and autoimmune/idiopathic lesions of HIV infection. I have been the PI of the NIDCR-funded International Research Registry Network for Sjögren’s Syndrome (SICCA) and continue to provide guidance to the PIs of the project.

Track record in Mentorship. Students: At the undergraduate, predental/premedical student level I provide advice and support to a number of students, including several of our Undergraduate Mentoring Program students each year. I provide general guidance and mentoring for academic career-oriented dental and DDS/PhD students, through my advisor role to the John C. Greene Society. Fellows: Until 2007 I was the Director/PI of one of only two K12 NIDCR-funded Mentored Dental Clinician Scientist Training Awards nationwide. K12 DE 14609, the Western Oral Research Consortium a five University dental school group intended to identify, support and train future dentist clinician academics. I have been an active mentor in the UCSF Roadmap K12/KL2 Award, now folded into our Clinical and Translational Sciences Institute under the NIH Roadmap CTSA Program. I have been active in selecting awardees. My mentoring in the UCSF/Gladstone Institute of Immunology and Virology Center for AIDS Research Mentoring program includes my mentee Brinda Emu, Fellow in Infectious disease in the Department of Medicine at SFGH and the GIVI. Faculty: My role as Associate Dean for Research in the School of Dentistry involved, as does my current role of Associate Dean for Global Oral Health, among other responsibilities, the mentoring of a number of junior and senior faculty members. Depending on their level of seniority, this involves many of the mentoring activities I contribute for fellows and K12/KL2 trainees. In my role as Director of the campuswide AIDS Research Institute [ARI], based in the Office of the Dean, School of Medicine, I mentored a significant number of mid-level and fairly senior faculty members, applying the same approaches for them as I did for my mentee faculty colleagues in the SoD.

B. Positions and Honors

Positions and Employment

- **Greenspan, John**
  - **NAME**
  - **POSITION TITLE**
    - Distinguished Professor, Oral Biology & Oral Pathology, Associate Dean for Global Oral Health
    - Director of UCSF AIDS Specimen Bank, School of Dentistry;
    - Distinguished Professor, Pathology and
    - Director-Emeritus, AIDS Research Institute, School of Medicine.

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
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<th>FIELD OF STUDY</th>
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<tr>
<td>Royal Free Hospital Medical School, London</td>
<td>BSc (1st Honors)</td>
<td>06/1959</td>
<td>Anatomy</td>
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<tr>
<td>Royal Dental School, London</td>
<td>BDS (Honors)</td>
<td>01/1963</td>
<td>Dentistry</td>
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<tr>
<td>Royal Postgraduate Medical School, London</td>
<td>PhD</td>
<td>05/1967</td>
<td>Experimental Pathology</td>
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<td>Royal College of Pathologists, UK</td>
<td>MRCP</td>
<td>06/1971</td>
<td>Oral Pathology</td>
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<tr>
<td>Royal College of Pathologists, UK</td>
<td>FRCP</td>
<td>06/1983</td>
<td>Oral Pathology</td>
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**Areas of Expertise:**
- Clinical Trials Network (ACTG)
- Oral AIDS/HIV Collaborative Alliance (OHARA)
- NIDCR-funded International Research Registry Network for Sjögren’s Syndrome (SICCA)
- Oral opportunistic infections, neoplasms, and autoimmune/idiopathic lesions of HIV infection
1963  Fellow, Histochemistry, Royal Postgraduate Medical School, London
1963-1971  Assistant Lecturer, through Senior Lecturer, Oral Pathology, RDH London
1969-1971  Fellow, Pathology, St. George's Hospital Medical School, London
1972-1973  Visiting Associate Professor, Schools of Dentistry and Medicine, UCSF
1971-1976  Senior Lecturer/Consultant Pathologist, Royal Dental Hospital School of Dental Surgery, (RDH) Consultant to St. George's Hospital and Institute of Dermatology, all University of London.
1976-present  Professor, Oral Biology and Oral Pathology, School of Dentistry and Pathology, School of Medicine, UCSF
1976-1988  Professor and Chair, Division of Oral Biology, School of Dentistry, UCSF
1982-present  Director, UCSF AIDS Specimen Bank
1987-1991  Associate Director, UCSF Dental Clinical Epidemiology Program
1987-2005  Director, UCSF Oral AIDS Center
1988-2001  Professor & Chair, Department of Stomatology, School of Dentistry, UCSF
1993-1999  Director, UCSF AIDS Clinical Research Center (ACRC), School of Medicine, UCSF
1999-2006  Director, UCSF California AIDS Research Center (CARC), School of Medicine, UCSF
2001-2006  Leland A. and Gladys K. Barber Professor of Dentistry
2001-2009  Associate Dean for Research, School of Dentistry, UCSF
2003-2012  Director, AIDS Research Institute at UCSF (ARI)
2009-present  Distinguished Professor, Schools of Dentistry and Medicine, UCSF
2010-present  Associate Dean for Global Oral Health, School of Dentistry, UCSF

Other Experience and Professional Memberships
1979-1981  Chair of Faculty, School of Dentistry, UCSF
1983-1984  President, Experimental Pathology Group, International Association for Dental Research
1981-1985  Vice Chair, Chair, UCSF Division of the Academic Senate of the University of California
1985-present  Fellow, American Association for the Advancement of Science
1986-1989  Vice President, President-Elect, President, American Association for Dental Research
1988-present  Member, Institute of Medicine
2011-present  Chair, Global Oral Health Interest Group, Consortium of Universities for Global Health
2013-present  President, Global Oral Health Inequalities Network, IADR

Honors
1990  Sc. D (hc) Georgetown University
1996-1997  Royal Society of Medicine Foundation/Burroughs Wellcome Visiting Professor, London, UK
1997-present  Who's Who in America
1998-present  Fellow in Dental Surgery, Royal College of Surgeons of England
2001-2006  Leland A. and Gladys K. Barber Endowed Chair in Dentistry, UCSF
2003-present  Fellow, King’s College London
2006  Mentor Award, National Student Research Group, AADR
2008  Positive Health Practice Award, 360: Positive Care Center at UCSF
2009  John Greene Society Faculty Research Award, UCSF
2010  American Association of Dental Research (AADR) Distinguished Scientist Award
2011  King’s College London Dental Institute Alumnus of the Year Award
2012  American Dental Association Gold Medal for Excellence in Dental Research
2014  UCSF Academic Senate Faculty Research Lecture Award – Translational Science.

C. Selected Peer-reviewed Publications
Recent publications of importance (in chronological order)

2. Baer AN, Gourin CG, Westra WH, Cox DP, Greenspan JS, Daniels TE; Sjögren's International Collaborative Alliance, “Rare diagnosis of IgG4-related systemic disease by lip biopsy in an


D. Ongoing Research Support
ACTIVE

HHSN268201300057C (PI: CH Shiboski; co-PI: L Criswell) 9/30/13-9/29/18
NIH/NIDCR
International Research Registry Network for Sjögren’s Syndrome
The major goal of this contract is to disseminate data and biospecimens collected as part of the International Research Registry Network for Sjögren's Syndrome to the scientific community to conduct epidemiologic and genetic studies on Sörgren's Syndrome.

**Role:** Co-Investigator

P30AI027763 (Volberding) 07/15/02-06/30/13
Center for AIDS Research (CFAR), UCSF AIDS Specimen Bank
The purpose of CFAR is to continue the expansion of translational HIV investigations that bridge the disciplines of basic, clinical, and behavioral sciences. Role: Director, CFAR Specimen Bank Core.

U01 AI 68636 (Kuritzkes) 6/29/06-12/31/13
Leadership for HIV/AIDS Clinical Trials Group (ACTG), Social and Scientific Systems
Project: Oral HIV/AIDS Research Alliance (OHARA) (Shiboski)
The goal OHARA is to develop and implement an oral HIV/AIDS research agenda within the ACTG infrastructure. OHARA will provide the capacity to investigate the oral complications associated with HIV/AIDS and to address such overarching questions as the effects of potent antiretrovirals on the development of opportunistic infections (OIs) and the natural history of oral OIs, variation and resistance in the context of immune suppression. Roles: Co-Investigator and Co-PI of the UCSF component.

AI34989 (Greenblatt, R.) 01/01/97-12/30/18
NIH/NIAID
The Connie Wofsy Women's HIV Study (WIHS) - Specimen Bank
This project's main focus is to study the natural history and pathogenesis of HIV-infection in a large cohort of women at risk for AIDS in the San Francisco Bay Area. Role: Dr. Greenspan is responsible for the biobanking of WIHS specimens.

3P01AT005013 Hecht F. 9/30/2008-5/31/2014

**SHINE**
Obesity is epidemic and is one of our most serious public health problems. Many of obesity's unfavorable health effects are more strongly related to central (abdominal and upper trunk) adiposity than to peripheral adiposity. The results of the study will provide important new information about whether a mind-body intervention targeted to reduce adverse stress reactions and improve awareness of eating behaviors is useful in treating obesity and altering features of the metabolic syndrome. Role: Dr. Greenspan is responsible for the banking of SHINE specimens.

**COMPLETED**

5UL1 RR024131-02 (McCune) 09/30/06-06/30/11
Clinical and Translational Sciences Institute (CTSI), Strategic Opportunities Support (SOS)
1) Enhance, support, and integrate existing training programs, increasing the number and quality of programs and providing trainees with the knowledge, skills, and motivation to make significant contributions to clinical and translational research; 2) Enhance career development of people involved in clinical investigation and translational research by providing mentoring, exploiting opportunities to catalyze original research, and changing the academic culture to appropriately reward original, multidisciplinary, collaborative work; 4) Create a "virtual home" for clinical and translational researchers, thereby nurturing communication, encouraging collaboration, fostering original ideas, and catalyzing the successful conduct of clinical investigation and translational research. Role: Co-Investigator

U01 AI 41531 (Levy) 7/1/97-6/30/08
Acute Infection and Early Disease Research Network
UCSF AIDS Specimen Bank
To form an HIV-1 acute infection and early disease research unit using innovative approaches to recruit and retain at least 25 persons with acute HIV and 40 with early HIV infection for four years. Role: Co-Investigator

P01 DE07946 (Greenspan) 11/01/86 – 4/30/07
Oral Manifestations of AIDS
This program project proposal is a continuation of our work focusing on the oral manifestations of AIDS. This will enable us to better understand the pathogenesis of oral candidiasis and hairy leukoplakia, and to better define the epidemiology of oral lesions.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Diane V. Havlir

POSITION TITLE
Professor of Medicine

eRA COMMONS USER NAME (credential, e.g., agency login)
DHAVLIR

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Olaf College, Northfield, MN</td>
<td>BA</td>
<td>1980</td>
<td>Chemistry/Biology</td>
</tr>
<tr>
<td>Duke University Medical School, Durham, NC</td>
<td>MD</td>
<td>1984</td>
<td>Medicine</td>
</tr>
</tbody>
</table>

A. Personal Statement

Training the next generation of researchers in HIV and co-infections is a priority in my professional career. I work actively with scientists in training both in San Francisco and Uganda. Areas of focus include antiretroviral therapy strategies and HIV and co-infections (tuberculosis and malaria). For the proposed study, I will work with Dr. Kamya and Uganda faculty to identify opportunities for trainees to conduct implementation science analysis within the context of our ongoing funded studies.

B. Positions and Honors

Research and Professional Experience

1984–1987 - Internal Medicine Internship and Residency, Univ. of California, San Francisco, CA; 1987–1988 - Attending Physician, Chief of Hospital Based Home Care, Veterans Hosp., San Francisco, CA; 1988–1990 - Infectious Disease Fellowship, University Hospitals, Cleveland, OH; 1990–1996 - Assistant Professor of Medicine, University of California, San Diego, CA; 1990–2002 - Attending Physician, Veteran's Administration Medical Center, San Diego, CA; 1992–2002 - Clinical Director, UCSD Antiviral Research Center (AVRC), San Diego, CA; 1996–2002 - Associate Professor of Medicine, University of California, San Diego, CA; 2002–present - Professor of Medicine, University of California, San Francisco, CA; 2002–present - Chief, HIV/AIDS Division, San Francisco General Hosp., Univ. of California, San Francisco, CA

Awards and Service

Summa Cum Laude, St. Olaf College; Alpha Omega Alpha, Duke University Medical School; Merck Community Service Award; AIDS and Related Research Study Section, NIAID, NIH; WHO, Steering Committee for Program on Global Monitoring of HIV Drug Resistance; WHO Core Committee for Antiretroviral Treatment Guidelines for Resource Limited Settings; City of San Diego HIV “Spirit of the Quest” Award; International AIDS Society Governing Council; Elected into the American Society of Clinical Investigation; HIV Research Achievement Award of the IDSA and HIVMA; Chair, HIV/ TB; Group; Board of Directors, WHO and STOP TB Partnership; Scientific Chair, International AIDS Conference, 2010, Vienna, Austria; Pediatric FLAG Mentorship Award, UCSF; AIDS Research Institute Mentorship Award, UCSF; US Chair International AIDS Conference, 2012, Washington, DC, USA; Joseph E. Smadel IDSA Award, 2012, Pathways Mentorship Award, UCSF, 2014

C. Selected Peer-Reviewed Publications (From 226)


D. Research Support

Ongoing Research Support

UM1AI069496 12/01/2013 – 11/30/2020
NIH/NIAID
San Francisco Bay CTU
The major goal of this project is to advance HIV prevention and treatment science forward and being major contributors to the HVTN, HPTN, MTN and ACTG.
Role: Co-Principal Investigator

P01 HD059454 (Havlir) 08/01/2008-06/30/2018
NIH-NICHD
Novel Strategies to Prevent Malaria and Improve HIV Outcomes in Africa
The primary goal will be to build on current knowledge to establish new approaches to reduce HIV and malaria burden in sub-Saharan Africa, and to advance the public health approach to both diseases.
Role: Principal Investigator

K24 AI51982 (Havlir) 04/15/2002 – 03/31/2015
NIH/NIAID
Mid-Career Investigator Award in Patient-Oriented Research
The goals of the career development award are to conduct innovative patient-based research, increase her mentorship role, and develop an international-based clinical research program.

T32 AI060530 (Havlir) 09/05/2005 – 07/31/2015
NIH/NIAID
Training in HIV Translational Research
The aim of this program is to train patient-based physician scientists in HIV translational research under the careful supervision of a small and carefully selected group of clinical and laboratory scientists.

P30 AI27763 (Volberding) 03/01/1997 – 08/31/2017
NIH/NIAID
Center for AIDS Research
The primary aim of the UCSF-GIVI CFAR is to nurture and sustain innovative multidisciplinary HIV research

U01AI099959 (Havlir) 06/01/2012 – 06/30/2015
NIH
Reducing Failure-to-Initiate ART: Streamlined ART Start Strategy (START)
The major goal of this project is to test our Streamlined ART Start Strategy (START) in a RCT.
Role: Principal Investigator

UM1Al068636 (Kuritzkes) - Brigham & Women's Hospital 01/01/2014 – 11/30/2014
Co-Vice Chair of the Tuberculosis TSG
Role: Subcontract PI
BIOGRAPHICAL SKETCH

NAME
Anke Hemmerling

POSITION TITLE
Project Director

eRA COMMONS USER NAME (credential, e.g., agency login)
ANKEH1

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Humboldt University Berlin, Germany</td>
<td>MD</td>
<td>1991 - 1999</td>
<td>Medicine</td>
</tr>
<tr>
<td>Humboldt University Berlin, Germany</td>
<td>PhD</td>
<td>1999 - 2003</td>
<td>Medical Sciences</td>
</tr>
<tr>
<td>Humboldt University DRK Kliniken Westend Berlin</td>
<td>Residency</td>
<td>2000 - 2003</td>
<td>Obstetrics &amp; Gynecology</td>
</tr>
<tr>
<td>University of California at Berkeley, USA</td>
<td>MPH</td>
<td>2004</td>
<td>Public Health</td>
</tr>
</tbody>
</table>

A. Personal Statement

In my role as the project director of the Microbicide Research and Development Program at UCSF, I successfully implemented two clinical trials (phase 1 and 2 clinical trials) at UCSF: the phase 1 safety study and phase 2a colonization efficiency and safety study of Lactobacillus crispatus CTV-05 (LACTIN-V), another live biotherapeutic product for vaginal health. These studies were important for the development of Mucocept®, as they established data on safety and colonization efficiency of an unmodified Lactobacillus strain, as well as acceptability data. I prepared all essential documents for both studies, participated in the IND process, was responsible for the IRB and CCRC applications, and selected the clinical research team. I was also involved in data analysis, wrote the study reports and was the first author on the resulting publications. Recently, I completed a study assessing the public’s perception, knowledge and attitudes around genetically modified live biotherapeutic products to inform the design of subsequent clinical studies of Mucocept®.

My years as the administrative liaison between Osel, Inc. and various departments at UCSF prepared me well for my role as a general IPCP-MucoCept program coordinator as well as Co-Director for Project 3 of this proposal, serving as a coordinator for the various sites within UCSF (labs of Drs Chiu, Miller and Moscicki) as well as our collaborator Dr Kaul in Toronto and Dr Anton at UCLA, organizing regular conference calls, sample shipments, annual reports and budget tracking.

B. Positions and Honors

Positions and Employment

2004 – 2007  Director of Special Health Projects, Venture Strategies for Health and Development, Berkeley
2007 – present Project Director, UCSF Microbicide Research and Development Program
2012 – present Lecturer, University of California Berkeley, School of Public Health
2012 – present Lecturer, UCSF Global Health Sciences Masters Program
2013 – present Scientific advisor, Coalition Advancing Multipurpose Innovations for Reproductive Health (CAMI)

Other Experience and Professional Memberships

2007 – present  Steering Committee, Coalition Advancing Multipurpose Innovations
C. Selected Peer-reviewed Publications

Selection of 15 (out of 21 peer-reviewed) articles and book chapters:

Peer-reviewed Articles


Book Chapters


D. Research Support

Osell, Inc. (Industry Sponsor)
**Phase 1 and phase 2a clinical trial assessing vaginal probiotic LACTIN-V for prevention of Bacterial Vaginosis.**
The goal of these studies was to conduct clinical trials assessing safety, colonization efficiency and acceptability of *L. crispatus* CTV-05 in health women and women with bacterial vaginosis.
Role: Project Director

NIH-FIC D43 TW007388-01  Cohen (PI)  04/2009 – 06/2010
NIH/NIAID  Fogarty International Center
**KEMRI-UCSF Infectious Disease Research Training Program:** This training program was a sandwich program in which selected pre-doctorates and post-doctorates enrolled in the INTROMID program at KEMRI participate in an intensive training program at both KEMRI at UCSF.
Role: Co-Investigator

A114676
NIH
**NIH support for Microbicides 2010 Satellite Symposium “Probiotics: Potential for a Live Microbicide”.**
Role: Organization of symposium, preparation of conference report.

Al071978  Cohen (PI)  09/2009 – 08/2013
NIH
**Phase 0 clinical trial assessing bioenhanced vaginal probiotic Mucocept (with GusA) for HIV prevention.**
The redefined goal of this study is to perform preparatory work for early clinical trials of MucoCept. The originally planned pre-phase 1 study with the recombinant GusA-expressing *L. jensenii* strain as an interim step before assessing Mucocept was modified after consultations with the NIH, and implemented completed a study assessing the public’s perception, knowledge and attitude around genetically modified live biotherapeutic products to inform the design of subsequent clinical studies of Mucocept®.
Role: Project Director
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Hiatt, Robert A.

POSITION TITLE
Professor and Chair, Epidemiology and Biostatistics
Director of Population Sciences and Deputy Director, Helen Diller Family Comprehensive Cancer Center,
University of California San Francisco

eRA COMMONS USER NAME (credential, e.g., agency login)
rhiatt

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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</thead>
<tbody>
<tr>
<td>University of Michigan, Ann Arbor, MI</td>
<td>B.A.</td>
<td>1964</td>
<td>Zoology</td>
</tr>
<tr>
<td>University of Michigan Med School, Ann Arbor, MI</td>
<td>M.D.</td>
<td>1968</td>
<td>Medicine</td>
</tr>
<tr>
<td>San Francisco General Hospital, San Francisco, CA</td>
<td>Internship</td>
<td>1969</td>
<td></td>
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<tr>
<td>USPHS Hospital, San Francisco, CA</td>
<td>Residency</td>
<td>1971</td>
<td>Internal Medicine</td>
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<tr>
<td>University of California, Berkeley, CA</td>
<td>MPH, PhD</td>
<td>1972, 1980</td>
<td>Epidemiology</td>
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A. Personal Statement

I am Professor and Chair of Epidemiology and Biostatistics at UCSF and also the Director of Population Sciences and Associate Director for the Helen Diller Family Comprehensive Cancer Center. I came to UCSF in 2003 after being the first deputy director of the National Cancer Institute's Division of Cancer Control and Population Sciences, where, among other things, I oversaw the extramural cancer epidemiology, health disparities, health outcomes and cancer surveillance programs. I had primary extramural responsibility for the development of the NCI's Cohort Consortium. I have been the Director of Population Sciences at the CCC since 2003 and have overseen the development of new research programs there. I was the founding director of the UCSF Doctoral Program in Epidemiology and Translational Science from 2008-13 and a primary contributor to the recent NCI meeting on the Future of Epidemiology in the 21st Century. I am a past president of the American College of Epidemiology and the American Society of Preventive Oncology. I have a demonstrated record in breast cancer research and of leading successful and productive transdisciplinary research projects. My current work on studies of breast cancer and the environment have led me to become interested and concerned about complex etiologic relationships of multiple factors and their interactions. I have developed a complex systems model for postmenopausal breast cancer etiology that combines factors from biologic, environmental, behavioral and sociocultural domains to highlight these complex interactions and to suggest opportunities for filling gaps in our knowledge and lead to effective interventions at multiple levels and across the lifecourse.

B. Positions and Honors

Positions and Employment

1974 Clinical Instructor in Medicine & Director, Employee Health Service, San Francisco General Hospital and University of California Medical School, San Francisco CA
1974, 76-81 Physician, Berkeley and Hayward Industrial Medical Groups, Berkeley and Hayward, CA
1974-1976 Chief, Parasitology Section, San Juan Laboratories, San Juan, Puerto Rico, Center for Disease Control, US Public Health Service
1977-1998 Epidemiologist, Senior Epidemiologist (77-90), Assistant Director (91-98), Division of Research, Kaiser Permanente Medical Care Program, Oakland, CA
1980-1987 Lecturer, Department of Epidemiology and International Health, School of Medicine, University of California, San Francisco, CA
1981-1997 Lecturer, Department of Biomedical and Environmental Health Sciences, School of Public Health, University of California, Berkeley, CA
1981-1986 Physician, Internal Medicine, Berkeley Family Practice Medical Group, Berkeley, CA
1988-1998  Associate Director for Detection, Prevention & Education (81-86), Director of Prevention Sciences (93-98), Northern California Cancer Center, CA
1998-2003  Deputy Director, Division of Cancer Control & Population Sciences, National Cancer Institute, NIH, Bethesda, MD
2003-2007  Senior Scientist, The Permanente Federation, Kaiser Permanente Medical Care Program, Oakland, CA
2003  Director of Population Sciences and Deputy Director, UCSF Comprehensive Cancer Center and Professor of Epidemiology & Biostatistics, UCSF School of Medicine
2006  Adjunct Investigator, Div. of Research, Kaiser Permanente Medical Care Program, Oakland, CA
2006  Chair, Department of Epidemiology & Biostatistics, UCSF School of Medicine
2007  Senior Advisor, Community Health Initiative, Kaiser Foundation Health Plan
2008  Adjunct Professor, Division of Epidemiology, School of Public Health, University of California, Berkeley

Awards and Honors
1967-1968  Victor Vaughn Medical Historical Society, University of Michigan Medical School
1968  Department of Health, Education and Welfare, Children’s Bureau Fellowship, Belgrade, Yugoslavia
1991  American Epidemiological Society
1998-1999  President, American College of Epidemiology
2001  National Institutes of Health Merit Award, Quality of Cancer Care Committee
2002  National Institutes of Health Merit Award, Cancer Progress Report; 2002, National Institutes of Health Director’s Award, Cancer Progress Report
2003-2004  President, American Society of Preventive Oncology
2010  National Cancer Institute, Visiting Scholar, Epidemiology & Genetics Program.

Professional Qualifications
Medical Licensure: California C-32334, Michigan 29031
1974  American Board of Preventive Medicine, Fellow
1978  American Board of Internal Medicine, Eligible
1986  American College of Epidemiology, Fellow

C. SELECTED PUBLICATIONS (Since 2010 - total of 178)


D. Research Support

Ongoing Research Support

2P30 CA82103-14 (McCormick) 09/19/2012 – 05/31/17
NIH/NCI

UCSF Helen Diller Family Comprehensive Cancer Center Support Grant

Major goals: The Cancer Center Major goals: Support Grant provides support for administration and infrastructure for the UCSF Helen Diller Family Comprehensive Cancer Center (HDFCCC).
Role: Director of Population Sciences and Associate Director of the HDFCCC

01 ES019457 (Hiatt) 09/01/10 – 04/30/15
NCI/NIEHS

Breast Cancer and the Environment Research Program Coordinating Center

Major goals: The BCERP CC works with three integrated cohorts of girls in centers across the country to study potential environmental causes of breast cancer by focusing on factors in puberty and adolescence.
Role: Principal Investigator

The Robert Wood Johnson Foundation (Adler) 09/03/10 – 04/30/15
The Robert Wood Johnson Health and Society Scholars Program
Major goals: To implement an interdisciplinary, post-doctoral training program focused on the contextual, behavioral and biological determinants of health in order to improve the health of populations.
Role: Primary Faculty and Mentor

P60 MD006902 (Bibbins-Domingo) 08/27/12 – 02/28/17
NMHD

The Center for Health and Risk in Minority Youth and Adults (CHARM) -
Major goals: To create CHARM, a new comprehensive center of excellence that will focus on chronic conditions and disease risk in diverse populations in adolescence to young adulthood to impact minority health and health disparities. Role: Co-Investigator

Leveraging the California Cancer Registry (Hiatt) 7/1/13 – 9/31/14
California HealthCare Foundation
To examine the barriers and opportunities for leveraging the California Cancer Registry (CCR) for measuring and improving the quality of cancer care through public reporting of cancer quality metrics by provider.

Role: Principal Investigator

**Study of Etiology of Esophageal Cancer in Tanzania (SEEC-Tanzania)** 2/14/14 – 2/13/16

NCI/NIH

Major goals: To study the high incidence of esophageal cancer (EC) in Eastern Africa by summarizing incidence and mortality rates in registries, by characterizing cases retrospectively from medical record review and by performing a case-control study to determine the potential etiologic factors in Dar es Salaam, Tanzania.

Role: Project Leader

**COMPLETED Research Support**

**RO1** (Shim) 07/01/10 - 06/30/14

NIH/NHGRI

**Conceptions of Race and Ethnicity used in Gene-Environment Interaction Studies**

Major goals: To anticipate and analyze how conceptions of race and ethnicity used in gene-environment interaction (GEI) research influence societal understandings of race, ethnicity, and individual and group identity.

Role: Co-Investigator

**U01 ES019435-01** (Kushi) 09/03/10 - 04/30/13

NCI/NIEHS

**The CYGNET Study: Environmental and Genetic Determinants of Maturation of Girls**

Major goals: To pursue hypotheses related to early development, puberty and adolescence with a focus on the influence of social determinants including socioeconomic status, race and ethnicity, the built environment, and other related issues like assessments of wealth, residential segregation and various stress pathways that might explain various social factors affecting early development and maturation in girls.

Role: Co-Investigator

**5995SC Esserman (UC Systemwide PI)** 01/01/10 - 12/31/12

UC Office of the President, Multi-campus Research Programs and Initiatives (MRPI) award

**Athena Breast Health Network**

Major goals: The aim of the MRPI award is to support innovative collaborations that assemble multi-disciplinary, statewide teams of UC experts to focus their efforts around specific research areas important to California. MRPI funding for Athena supports the development of an infrastructure, shared across all UC medical centers, to integrate clinical data with research and learning and thus accelerate advancements in breast cancer prevention, screening, and treatment.

Role: Co-Investigator

**15QB-8301 (Hiatt)** 05/01/09 – 04/30/12

California Breast Cancer Research Program

**New Paradigm of Breast Cancer Causation and Prevention**

Major goals: This project takes a transdisciplinary approach to develop a model for breast cancer causation and etiology that takes into account multiple disciplinary perspectives from the biologic to the sociologic in order to provide common ground for understanding and to point up gaps in knowledge about breast cancer etiology that require further investigation.

Role: Principal Investigator
NAME
Nancy K. Hills

POSITION TITLE
Assistant Professor, Stroke Sciences Group
Department of Neurology

eRA COMMONS USER NAME
NANCYHI

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>College of William and Mary, Williamsburg, VA</td>
<td>BA</td>
<td>1969-1973</td>
<td>English Literature</td>
</tr>
<tr>
<td>College of William and Mary, Williamsburg, VA</td>
<td>MA</td>
<td>1974-1980</td>
<td>English Literature</td>
</tr>
<tr>
<td>Boston University, Boston, MA</td>
<td>MBA</td>
<td>1981-1983</td>
<td>Marketing Research</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>MA</td>
<td>1995-1997</td>
<td>Biostatistics</td>
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<tr>
<td>University of California, Berkeley, CA</td>
<td>PhD</td>
<td>1997-2005</td>
<td>Epidemiology</td>
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</tbody>
</table>

A. Positions

POSITIONS and EMPLOYMENT
1997-2003  Biostatistician, Department of Pediatrics, UCSF
2003-2005  Specialist II, Department of Neurology, UCSF
2005-2007  Adjunct Instructor, Department of Neurology, UCSF
2007-present Asst. Adjunct Professor, Department of Neurology, UCSF
2013-present Joint appointment, Department of Epidemiology and Biostatistics, UCSF

OTHER EXPERIENCE and PROFESSIONAL MEMBERSHIP
2013-present Consultant for Master’s Program in Monitoring & Evaluation, Mzumbe University, Tanzania
2012 International online discussion group leader, Biostat 200, TICR, UCSF
2011-present Instructor, Biostatistics, Hanoi School of Public Health, Hanoi, Vietnam (through PEPFAR)
2011-present Instructor, Biostatistics, Pasteur Institute, Ho Chi Minh City, Vietnam
2010-present Instructor, Biostatistics, Masters’ Program in Global Health Sciences, UCSF
2009-present Biostatistics Consultant, CTSI
2010-present Member, American Statistical Association
2004-present Member, American Heart Association
2007-present Member, American Academy of Neurology
2000-present Instructor, Principles of Epidemiology, UC Berkeley Extension
2000-2001 Instructor, Introductory Epidemiology and Biostatistics, San Jose State University
1996 Instructor, Department of Statistics, UC Berkeley

C. Peer-reviewed publications (in chronological order)

8. NK Hills and SC Johnston, “Why Are Eligible Thrombolysis Candidates Left Untreated?,” American


---

**Other Support**

For each of the professionals named on the budget pages, list the title, start and end dates; source of funding; and yearly amounts of all state, federal, commercial, and private funding support. Include this information for active grants, proposals under review, and proposals being prepared for submission. Indicate the percentage of effort for investigators in each project.

**Nancy K. Hills**

**ACTIVE**

- **R01 NS062820 (HJ Fullerton, contact PI; G deVeber, PI) 8/5/09-7/30/14**
  - NIH/NINDS $1,098,901
  - 20% effort

  **Vascular Effects of Infection in Pediatric Stroke (VIPS)**
  
  This is an international 30-center observational study with the goal of determining whether recent infection and inflammation predict arteriopathy in children with arterial ischemic stroke.

  Role: Biostatistical support.

- **RAS-A116619 2/1/11-1/31/13**
  - Thrasher Research Foundation $174,535
  - 20% effort

  **Stimulants and Childhood Stroke (StaCS)**

  This is a case-control study nested within the cohort of the 2.5 million children enrolled in KPMCP from 1993-2007 with the goal of determining whether ADHD medications increase the risk of childhood arterial ischemic stroke.

  Role: PI
BIOGRAPHICAL SKETCH

Name
Judith Justice, PhD, MPH

Education
1975-1981 University of California, Berkeley
Department of Anthropology Medical Anthropology Ph.D. 1981
Anthropology M.A. 1976
1968-1969 University of Pittsburgh, PA
School of Public Health Public Health M.P.H. 1969
1966-1968 University of Pittsburgh, PA
School of Social Work Social Welfare M.S.W. 1968
1961-1965 Tufts University, Boston, MA Psychology B.S. 1965

Personal statement
My academic career has focused on teaching medical anthropology and global health at UCSF, in addition to teaching global health courses as a Visiting Professor at UC Berkeley and Case Western Reserve University. I have conducted research in South and Southeast Asia, Africa, and the U.S., and served as a consultant for foundations and international organizations, in addition to working with the United Nations and UNICEF/India. Research interests include international and national health policy; foreign aid to the health sector; health and development; reproductive and child health; new vaccines and immunization; cultural context of emerging and re-emerging infectious diseases; and the role of NGOs. My research includes multi-country studies of the political and cultural dimensions of reproductive and child health in Egypt, India, Indonesia and Uganda, and a study on adoption of new vaccines in Bangladesh, Philippines, and Uganda. Other immunization related research includes a 4-year collaborative study with the University of Oslo (funded by the Norwegian Research Council) and a Gates Foundation funded study on the impact of polio eradication on routine immunization and primary care. I've also studied special health problems related to stigmatized and chronic diseases (e.g., HIV/AIDS, leprosy and tuberculosis), including among ethnic and minority populations in the U.S. In Nepal, I'm conducting a restudy of my earlier research on foreign assistance to the health sector, Policies, Plans and People: Foreign Aid and Health Development. Work focusing on HIV/AIDS includes a comparative study of home-based care and the role of community health volunteers within the broader context of volunteerism in poorer countries; documentation of the Gates Foundation supported-HIV/AIDS Prevention Project in India (Avahan); an NIH funded study on religious organizations and HIV/AIDS in Malawi, evaluation of UNAIDS in India, in addition to review of HIV/AIDS programs in Vietnam and Nepal.

Positions and Honors
2007-current Associate Professor of Medical Anthropology and Health Policy, (Adjunct/WOS), Department of Anthropology, History and Social Medicine, UCSF.
1985-2006 Associate Professor of Medical Anthropology and Health Policy, Department of Anthropology, History and Social Medicine, and Institute for Health Policy Studies, UCSF
1998 Visiting Professor, University of California at Berkeley, teaching globalization and health.
1993 & 1996 Flora Stone Mather Visiting Professor at Case Western Reserve University, teaching global health and development.
(Also Visiting Professor at CWRU in 1993, teaching global health.)
1985-1986  Congressional Fellow for American Anthropological Association with American Political Science Association Congressional Fellowship Program. Worked with Congressional Committees and individual members of the U.S. Congress on legislation for domestic health, long-term care for the elderly, and foreign assistance.


1982-2013  Global Health Collaboration, Consultation, Evaluation for United Nations agencies, bi-lateral donor organizations (US, British, Swiss, Danish), non-government organizations, and foundations (Gates, Ford Rockefeller, Carnegie) on program evaluation, organizational assessment, program planning and management, including project on reproductive and child health, vaccines and immunization, infectious diseases, primary health care, community participation, health sector review and reform, etc.

1982-83  Postdoctoral Fellow in Anthropology of Aging and Aging Health Policy, School of Medicine, University of California at San Francisco.

Honors and Awards

1999-2000  Fulbright Senior Scholar Award for the study of foreign assistance to the health sector in Nepal, "Re-examining the Fit Between International Health Policies and Local Realities in Nepal."

1997 & 1999  Team Residency at the Rockefeller Foundation's Bellagio Study and Conference Center, Italy for the Research Project on "Political and Cultural Dimensions of International Health Policy: Lessons from the Child Survival Initiative."

1996  Flora Stone Mather Visiting Professor, Case Western Reserve University.

1991  Resident Scholar at the Rockefeller Foundation's Bellagio Study and Conference Center, Italy, for summer 1991.

1988-1990  Advanced Research Fellowship in Foreign Policy Studies, Social Science Research Council/Ford Foundation.


1982-1983  National Research Service Award, National Institute of Aging. Postdoctoral Fellowship for Anthropology and Aging at University of California at San Francisco.

1975-1980  National Institute of General Medical Sciences Traineeship for graduate study in Medical Anthropology at University of California at Berkeley.


Selected Publications

Books


Articles (Selected)


Research Awards- 4 most recent of 16
“What Determines the Impact of Polio Eradication on Health Systems?”
Principal Investigator: Svea Closser, Middlebury College.
Research Advisor: Judith Justice
Funding Agency: Gates Foundation: 2011-2012
Conducted Nepal Country Study
“Multi-disciplinary Approach to Explaining Differential Immunization Coverage.”
Principal Investigator/Research Leader; Sidsel Roalkvam, Center for Development and Environment and Section for International Health, University of Oslo, Norway;
Research Advisor, Judith Justice.
“Integrated Primary Health Care and Workforce Training in Zomba District, Malawi: Health Systems Strengthening”
Principal Investigators: William Rankin, PhD and Jones Laviwa, MA
“Malawi Christians and Muslims: HIV Prevention and Care”
Principal Investigator: Sally Rankin
Co-Investigators: Judith Justice, Ellen Schell
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
James G. Kahn

POSITION TITLE
Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
JGKAHN

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<td>Harvard University, Cambridge, MA</td>
<td>—</td>
<td>1975-77</td>
<td>History of Science</td>
</tr>
<tr>
<td>Wesleyan University, Middletown, CT</td>
<td>BA, MALS</td>
<td>1980, 1981</td>
<td>Science in Society</td>
</tr>
<tr>
<td>Albert Einstein College of Medicine, Bronx, NY</td>
<td>MD</td>
<td>1986</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>MPH</td>
<td>1988</td>
<td>Epidemiology</td>
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A. Personal Statement

I have more than two decades’ experience in the empirical and modeled assessment of the cost, effects, and cost-effectiveness of global health interventions, programs, and policies, with more than 75 publications in this area. In the 1990s I completed several cost-effectiveness analyses (CEAs) of HIV prevention in injecting drug users in the U.S. I then conducted HIV CEAs in resource-poor settings, including PMTCT and anti-retroviral treatment (ART). I was the PI for PANCEA (Prevent AIDS: Network for Cost-Effectiveness Analysis), a study of the unit costs of 8 HIV prevention strategies in 5 countries, the largest HIV prevention cost study until 2013. For 15 years (now in years 16-20), I have been a co-investigator and UCSF PI for the NIDA-funded “Making Better Decisions: Policy Modeling for AIDS and Drug Abuse”. In 2006 I published the first CEA on male circumcision for HIV prevention, and in 2011, I published the only randomized trial-based CEA of lab monitoring for ART, in the British Medical Journal. Since 2006, I have studied other health conditions, including: in 2006, a CEA on hip devices; in 2009, a CEA on TB screening & treatment; in 2012, cost and CEA studies for a community integrated prevention campaign to deliver HIV testing, bed nets, and water filters in Kenya; in 2011 & 2013, CEAs of screening and treatment for gestational diabetes; and in 2013, CEAs on a garment to prevent maternal hemorrhage and test-guided therapy for Crohn’s disease. I have performed economic analyses for the World Health Organization, the Bill & Melinda Gates Foundation, the World Bank, the Centers for Disease Control and Prevention, and other US and global health agencies.

I am the PI of the Global Health Decisions project. In phase 1, “Global Health Intervention Review,” we summarized efficacy data for more than 150 interventions for 8 health conditions (including HIV), for the Kaiser Family Foundation. In Phase 2, we are examining HIV intervention effectiveness for specific target settings, and modeling disease burden reduction and cost-effectiveness for variable combinations of prevention and treatment interventions, via a user-friendly graphic web interface.

I am the lead cost and cost-effectiveness investigator for SEARCH and related studies of ART expansion in Kenya & Uganda, including analyses of earlier use (EARLI) and rapid initiation of ART (STARTs).

In the School of Medicine at UCSF, I lead two core economics courses: global health economics, and decision and cost-effectiveness analysis. I started and lead the newly formed UCSF Global Health Economics Consortium. I have mentored dozens of post- and pre-doctoral students and faculty over the past 25 years.

B. Positions and Honors

Positions and Employment
1986-1987 Intern, Pediatrics, Children’s Hospital, Oakland, CA
1987-1989 Resident, Preventive Medicine, University of California, Berkeley
1988-1989 International Health Fellow, International Health Program Office (IHPO), Centers for Disease Control (CDC) and Ministry of Health, Central African Republic
1989-1991 Fellow, Health Services Research and Health Policy, Institute for Health Policy Studies (IHPS), University of California San Francisco (UCSF)
1991-1992 Assistant Research Physician, IHPS/UCSF
1992-present Assistant, Associate and Full Professor, Dept. of Epidemiology & Biostatistics, IHPS, and Global Health Sciences, UCSF
Other Experience and Professional Memberships
2001-2003  Member, Institute of Medicine panel on Public Financing of HIV Care
2008-2012  Chair, Health Policy and Social Sciences Review Committee, RAP funding program, UCSF
2009  Invited speaker, Institute of Medicine Roundtable on Administrative Costs in U.S. Health Care

Positions and Employment
1977  Harvard Scholarship for Academic Achievement
1986  International Health Fellowships (2), Albert Einstein College of Medicine

C. Selected Peer-reviewed Publications (from 92 peer-reviewed publications)

Most relevant to the current application

Additional recent publications of importance to the field (in chronological order)
# D. Research Support

## Ongoing Research Support

<table>
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<tr>
<th>Grant Number</th>
<th>Principal Investigator</th>
<th>Start Date – End Date</th>
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<tbody>
<tr>
<td>RC4 AI092679-01</td>
<td>Kahn (PI)</td>
<td>10/01/2010 – 09/30/2013</td>
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<tr>
<td>DA15612</td>
<td>Kahn (UCSF PI)</td>
<td>05/01/2013 – 02/28/2018</td>
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<td>UM1 AI069502</td>
<td>Havlir (PI)</td>
<td>04/01/2013 – 3/31/2018</td>
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<td>U01AI099959</td>
<td>Havlir (PI)</td>
<td>06/01/2012 – 06/30/2015</td>
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<tr>
<td>UL1 RR024131</td>
<td>Johnston (PI)</td>
<td>10/01/2007 – 09/30/2016</td>
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<tr>
<td>U90HA2270</td>
<td>Myers (PI)</td>
<td>09/01/2011 – 08/31/2015</td>
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<tr>
<td>NIDA HIV Clinical Trials Network</td>
<td>Sorensen (PI)</td>
<td>12/1/2011 – 6/30/2015</td>
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Global Health Comparative Effectiveness: A Data Synthesis Method Applied to HIV
The goal of this project is to develop estimates of efficacy, effectiveness, disease burden reduction, and cost-effectiveness for scaled up HIV prevention and treatment interventions.
Role: PI

Making Better Decisions: Policy Modeling for AIDS and Drug Abuse
The goal of this project is to develop and implement computer similar models to assess the cost-effectiveness of HIV and substance abuse prevention and treatment interventions.
Role: UCSF subcontract PI

SEARCH
This study will implement an RCT to test the effect of a test and treat strategy on community health in Africa. I will conduct cost and cost-effectiveness analyses.
Role: Co-Investigator

Reducing Failure-to-Initiate ART: Streamlined ART Start Strategy (STARTs)
The goal of this project is to test a streamlined ART initiation method in a randomized, controlled trial in 24 clinics in Uganda. I will conduct cost and cost-effectiveness analyses.
Role: Co-Investigator

UCSF Clinical and Translational Science Institute (CTSI)
CTSI facilitates the rapid translation of research to improvements in patient and community health.
Role: Co-Inv., Community Engagement and Health Policy program

Systems Linkage and Access to Care Evaluation and Technical Assistance Center.
This multi-site project supports the development and implementation of interventions to enhance HIV testing and diagnosis among out of care populations and to link and retain these populations to high quality HIV care. UCSF is the evaluation and support center for 7 state demonstration sites.
Role: Co-Investigator

NIDA HIV Clinical Trials Network Project HOPE, CTN0049: Hospital Visit as Opportunity for Prevention & Engagement HIV-Infected Drug Users.
We will conduct a cost-effectiveness analysis of this intervention.
Role: Co-Investigator

## Completed Research Support

<table>
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<th>Start Date – End Date</th>
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<tr>
<td>California Health Care Foundation</td>
<td>Coffman (PI)</td>
<td>11/01/2011 – 10/31/2012</td>
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</table>

Comparative Effectiveness Large Dataset Analysis Care (CELDAC)
The goal is to develop a system to provide technical guidance and support to researchers interested in conducting comparative effectiveness research using large secondary data sets in the UCSF integrated data repository environment.
Role: Co-Inv.
This SEARCH study supplement continuation will plan an RCT to test the effect of a test and treat strategy on community health in Africa
Role: Co-Investigator

Cost-effectiveness of Programs in PMTCT and HAART in Africa
This project assesses the cost-effectiveness of different PMTCT and ART programs.
Role: PI

The goal of this project was to develop and assess an academic partnership between UCSF and Muhimbili University of Health and Allied Sciences (MUHAS).
Role: Co-Investigator

The goal of this supplement is to develop a system to provide technical guidance and support to researchers interested in conducting comparative effectiveness research using large secondary data sets in the UCSF integrated data repository environment.
Role: Project Director

To assess the cost-effectiveness of testing and treatment for the elimination of congenital syphilis.
Role: PI

This goal of this project was to review evidence on the effectiveness of global health intervention funded by the U.S. government.
Role: PI

The goal of this project was to convene a conference on adapting Aravind high-quality, high-volume surgical systems to adult male circumcision
Role: PI

To assess the cost and cost-effectiveness of a community health campaign for HIV, diarrhea, and malaria.
Role: PI
**BIOGRAPHICAL SKETCH**

**NAME**
Sarah B Macfarlane

**POSITION TITLE**
Professor

**eRA COMMONS USER NAME (credential, e.g., agency login)**
SBMACFARLANE

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

<table>
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<th>FIELD OF STUDY</th>
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<tr>
<td>University of Lancaster, UK</td>
<td>BA (Hons)</td>
<td>1968</td>
<td>Economics</td>
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<tr>
<td>London School of Economics, UK</td>
<td>MSc Econ</td>
<td>1969</td>
<td>Operational research</td>
</tr>
<tr>
<td>London University, UK</td>
<td>PhD</td>
<td>2010</td>
<td>Medical statistics</td>
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**A. Personal Statement**

I am a professor in the Department of Epidemiology and Biostatistics in the School of Medicine at UCSF with 35 years of global health professional experience. I led the UCSF partnership with Muhimbili University of Health and Allied Sciences (MUHAS) and served as the principal investigator of the Bill & Melinda Gates funded MUHAS-UCSF Academic Learning Project (ALP). The ALP focused on academic institutional capacity building and facilitated curriculum revision and faculty development across programs at all the professional schools at MUHAS. I coordinated academic input from all UCSF’s schools and provided project direction. My academic focus is on the role of universities in improving population health, and I co-edited a supplement to the Journal of Public Health Policy on the ALP (published in December 2012) entitled: Universities in Transition for Better Health Outcomes. Throughout my career, I have also worked on research capacity building first as a reader at the Liverpool School of Tropical Medicine in the United Kingdom, then as Associate Director at the Rockefeller Foundation, and now as a founding faculty member of UCSF Global Health Sciences. I have taught epidemiology, statistics, information systems and development studies to postgraduate students in the UK, US and on short term courses around the world.

**B. Positions and honors**

**Positions and Employment**

1965-1969 Research Fellow, Operational Research (Health Services) Unit, Department of Applied Statistics, The University of Reading, UK.


1975-1985 Lecturer, Department of Tropical Paediatrics and Child Health, Liverpool School of Tropical Medicine, The University of Liverpool, UK.

1985-1998 Senior Lecturer, Liverpool School of Tropical Medicine.

1985-1998 Head, Unit for Statistics and Epidemiology, Liverpool School of Tropical Medicine.

1994 Visiting Faculty member, Department of Population and International Health, Harvard School of Public Health, Harvard University.

1998-2000 Reader in Statistics and Epidemiology, Liverpool School of Tropical Medicine.

1998-2004 Associate Director, Health Equity Theme, The Rockefeller Foundation, New York.

2004- 2006 Visiting Professor, Department of Epidemiology and Biostatistics, The University of California, San Francisco (UCSF).

2004- 2006 Senior Advisor, Global Health Sciences, The University of California San Francisco.

2004- 2009 Coordinator of Intersect, a multi-disciplinary statistical capacity building project.

2006- 2010 Associate Professor, Department of Epidemiology and Biostatistics, UCSF.

2006- 2012 Director Program Development and Planning, UCSF Global Health Sciences.

2008 -2011 Director of the UCSF-MUHAS Academic Learning project

2010- now Professor, Department of Epidemiology and Biostatistics, UCSF.

**Honors**

1995 The University of Liverpool Teaching and Learning Excellence Award.

1997 Chartered Statistician (CStat), Royal Statistical Society, UK.

2003 Fellow of the Faculty of Public Health (FFPH), Royal Colleges of Physicians, UK.

**C. Selected publications**


D. Recent research support

Fogarty/ National Institutes of Health (with Dartmouth University) 08/01/2013 - 12/31/2016
“Developing the OSP at Muhimbili University: A North-South Training Collaborative”
Role: UCSF PI, Co-investigator

UCSF technical services agreement with the Aga Khan University (AKU) 10/1/2012 – 03/31/2014
“Integrated Primary Health Care – Kaloleni District” Supporting the development for and academic research around the Integrated Primary Health Care project.
Role: PI

ITECH 10/01/2012 - 03/31/2013
“Faculty and curriculum development at six universities in Ethiopia”. Subcontract with UW, flow-thru from HRSA.
Running workshops on faculty development.
Role: PI

The California Endowment 07/01/2007 - 06/30/2008
“The 2007/2008 Forum on Migration and Health” Describing research needs in the area of migration and health across the California-Mexico border.
Role: PI

“The 2007/2008 Global Health Sciences Forum on Migration and Health” Describing the research needs in the area of migration and health across the California-Mexico border.
Role: PI

Rockefeller Foundation 05/01/2007 - 07/31/2007
“Increasing access to surgical services in resource-constrained settings in Africa”
Support for a meeting around increasing access to surgical services.
Role: PI
### A. Personal Statement

The goal of the proposed project is to strengthen the consortium between the University of California, San Francisco (UCSF) and the Infectious Diseases Institute (IDI, of the Makerere School of Medicine in Uganda) focused on research career development and performance of research related to the prevention and early detection of infection-related HIV-associated malignancies. We will bolster the overall platform for career development in clinical and translational research at the IDI and provide specifically for the support of emerging Ugandan principal investigators who will lead three different research projects. I will be Co-Principal Investigator (PI) of the consortium along with Dr. Andrew Kambugu, Head of the Department of Research at the IDI. I will direct the Administrative Core, co-direct the Mentoring Core, and mentor Dr. Aggrey Semeere as he leads Research Project 3 on the occurrence of Kaposi’s sarcoma amongst patients on antiretroviral therapy.

My qualifications for this project include both theoretical background and practical experience. In addition to my formal training in epidemiology, I am Director of the UCSF Training in Clinical Research (TICR) Program, which provides didactic training (in both certificate and graduate programs) in clinical, epidemiologic, and translational research methods to professional students, clinical residents, post-doctoral fellows, and junior faculty members. This includes being Director of the Advanced Training in Clinical Research Certificate Program, Director of the Master’s Degree Program in Clinical Research, and a member of the Executive Committee of the Doctoral Program in Epidemiology and Translational Science. Scholars from all four professional schools at UCSF as well as the graduate division are served by the program, which is part of the UCSF NIH-sponsored Clinical and Translational Science Award (CTSA). The TICR Program includes 33 different courses covering an array of topics from “laboratory to human subjects” translational research, conventional clinical research, and “evidence to practice” translational research. I am the course director of Epidemiologic Methods, one of the program’s foundational courses in research methods. On a practical level, I have extensive experience in both observational and experimental research in both the U.S. and Africa. In the U.S., I am Co-Director of the Population and Clinical Sciences Core of the UCSF Center for AIDS Research (CFAR), which manages the UCSF SCOPE cohort. In Africa, I am the PI for the recently completed R01 CA119903 (a randomized trial for the therapy of Kaposi’s sarcoma in Africa); lead investigator for the Kaposi’s sarcoma epidemiologic studies of the East Africa IeDEA consortium (U01 AI069911); and Director of the Data Coordinating Center for the Uganda AIDS Rural Treatment Outcomes (UARTO) Cohort. Relevant to the current application, I am the PI for D43 CA153717, a training grant for research capacity-building in HIV-associated malignancies in Uganda, for which UCSF has been partnering for the past 3 years with the IDI. This award has supported the training of Ugandan community providers, pathologists, and emerging Principal Investigators, all of whom will play roles in the current application. In all of this work, I have had broad practical experience with study design, measurement development, study recruitment and retention, data collection, quality enhancement, data reporting, biostatistical analysis, manuscript preparation and financial management.
B. Positions and Honors

Principal Positions Held:
- 1997-2003: Assistant Professor of Epidemiology and Biostatistics, UCSF
- 2003-2009: Associate Professor of Epidemiology and Biostatistics, UCSF
- 2009-present: Professor of Epidemiology and Biostatistics, UCSF
- 1997-present: Attending Physician, San Francisco General Hospital
- 1997-1999: Co-Director, Advanced Training in Clinical Research (ATCR) Program, UCSF
- 2000-2006: Co-Director, NIH K30-sponsored Training in Clinical Research (TICR) Program, UCSF
- 2001-present: Director, Master's Degree Graduate Program in Clinical Research, UCSF
- 2006-present: Director, NIH CTSA-sponsored Training in Clinical Research (TICR) Graduate Program, UCSF

Honors and Awards:
- 1982: Phi Beta Kappa
- 1988: Alpha Omega Alpha
- 1988: Merck Manual Award, University of Pennsylvania School of Medicine
- 1989: Diplomate, National Board of Medical Examiners
- 1991: Diplomate, American Board of Internal Medicine
- 1996: Diplomate, American Board of Internal Medicine, Subspecialty in Infectious Diseases
- 1998: New Investigator Award, UCSF Center for AIDS Research (CFAR)
- 2009: Stephen B. Hulley Award for Excellence in Instruction in Methods of Clinical Research at UCSF

C. Selected Peer-reviewed Publications (selected out of 253)


**D. Research Support**

**Ongoing Research**

D43 CA153717 (Martin, PI) 9/01/10 - 8/31/14

NIH-NCI

Uganda-UCSF Research Training Program in HIV-Associated Malignancies

The major goal of this project is to provide training to Ugandan health care providers and emerging scientists related to promoting early diagnosis of HIV-related Kaposi’s sarcoma in Uganda as well as training related to studying the epidemiology, clinical course, and treatment of Kaposi's sarcoma in the antiretroviral therapy era.

Role: Principal Investigator

U01 AI069911 (Yiannoutsos, PI; Martin, UCSF PI) 8/1/11 – 7/31/16

NIH-NIAID

East Africa Consortium of International Epidemiologic Databases to Evaluate AIDS (IeDEA)

The major goal of this project is to develop a large cohort in East Africa to evaluate the epidemiology and response to antiretroviral therapy among HIV-infected individuals in resource-limited settings. Data from East Africa are subsequently shared with the larger IeDEA network in 6 other regions worldwide.

Role: Principal Investigator of UCSF Subcontract

U01 AI069918 (Moore, PI; Martin, UCSF PI) 7/1/11 – 6/30/16

NIH-NIAID

North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD)

The major goal of this project is to develop a large consortium of cohorts related to HIV/AIDS in North America to evaluate questions related to natural history and response to therapy. Data from N. America are subsequently shared with the larger IeDEA network in 6 other regions worldwide.

Role: Principal Investigator of UCSF Subcontract

UL1 RR024131 (Johnston, PI) 7/1/11 - 6/30/16

NIH-NCRR

Clinical and Translational Sciences Institute (CTSI)
The major goal of this project is to develop a comprehensive, integrated academic home that promotes research and education in clinical and translational science at UCSF.

Role: Co-Investigator; Director, Clinical Research Training Program

P30 AI27763 (Volberding, PI)  9/1/12 – 8/31/17
NIH-NIAID
Center for AIDS Research

The major goals of this Center grant are devoted to supporting a wide array of translational studies (basic science to clinical application) in the field of HIV/AIDS.

Role: Co-Investigator; Co-Director, Population and Clinical Sciences Core

R01 MH054097 (Bangsberg, PI)  7/1/10 – 3/31/15
NIH-NIMH
Novel Approaches to Monitoring and Utilizing Adherence to HIV Therapy in Africa

The major goal of this project is to evaluate novel wireless real-time assessment of adherence to antiretroviral therapy in Africa in order to better understand the manifestations of short-term treatment interruptions as well as to potentially supplant plasma HIV RNA testing.

Role: Principal Investigator of UCSF Subcontract

Completed Research

R01 CA119903 (Martin, PI)  9/30/05 - 7/31/12
NIH-NCI
Antiretroviral Therapy of AIDS-Related Kaposi's Sarcoma in Africa

The major goal of this project is to evaluate the relative effectiveness of protease inhibitor-based antiretroviral therapy versus protease inhibitor-sparing antiretroviral therapy in the treatment of AIDS-related Kaposi's sarcoma in Africa.

Role: Principal Investigator

K30 RR22257 (Martin, PI)  7/1/05 - 9/30/06 (converted to NIH CTSA mechanism)
NIH-NCRR
Clinical Research Curriculum Award (K30)

The major goal of this project is to develop a clinical research training program for physician scientists.

Role: Principal Investigator
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

**NAME**
Wendy Barbara Max

**POSITION TITLE**
Professor

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Stanford University, Stanford, CA</td>
<td>BA</td>
<td>1976</td>
<td>History, Economics</td>
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<tr>
<td>University of Colorado, Boulder, CO</td>
<td>MA</td>
<td>1981</td>
<td>Economics</td>
</tr>
<tr>
<td>University of Colorado, Boulder, CO</td>
<td>Ph.D.</td>
<td>1983</td>
<td>Economics</td>
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**A. Positions and Honors**

1976  Graduated from Stanford University with Honors
1979-80  Health Policy Analyst, Colorado Department of Health, Denver, CO
1980-81  Research Associate, Solar Energy Research Institute, Golden, CO
1982-83  Teaching Assistant, Univ. of CO, Boulder, CO
1983-91  Assistant Professor, CA State University, Hayward
1991-94  Assistant Adjunct Professor, Institute for Health & Aging, UCSF
1994-99  Associate Adjunct Professor, Institute for Health & Aging, UCSF
1999-present  Co-Director, Institute for Health & Aging, UCSF
2001-06  Honorary Visiting Professorship, Beijing Normal University, Beijing, People’s Republic of China
2010  30th Helen Nahm Distinguished Research Award, School of Nursing, UCSF
2014  Harold S. Luft Award for Mentoring in Health Services and Health Policy Research

**B. Selected Papers and Publications**


C. Research Support

**ACTIVE**

20CA-0102 Max, W. (PI)

California Tobacco-Related Disease Research Program
The Cost of Smoking for California’s 58 Counties
This study will develop estimates of the cost of smoking for each of California’s 58 counties, including costs of both active smoking and secondhand smoke exposure. Estimates will be made of smoking-attributable healthcare costs, time lost from activities, and the value of lives lost prematurely due to smoking-related illness.
Role: PI

Kohatsu, N. (PI) 11/16/11-9/12/16

Centers for Medicare & Medicaid Services
Medicaid Incentives for the Prevention of Chronic Disease
This project will implement an incentive program to reduce smoking prevalence among all Medi-Cal beneficiaries with an emphasis on outreach to those at high risk due to diabetes and other chronic conditions. The primary intervention will be the California Smokers’ Helpline. The primary outreach effort will be guided and implemented by the California Diabetes Program. The economics team will measure the cost-
effectiveness of the helpline program outreach activities and also the relative cost-effectiveness of alternative forms of outreach. We will also analyze the relative cost-effectiveness of different incentives to get Helpline callers to quit smoking. We will then use cost of smoking models and the CHD Policy Model to evaluate the short- and long-term impact of smoking cessation on MediCal costs, particularly those related to diabetes and other chronic illness. Role: Co-Investigator (leader of economic analysis team).

1R21DC011510-01 Wallhagen, M. (PI) 04/01/11 – 03/31/16
NIH, National Institute on Aging
Primary Care Intervention Promoting Hearing Health Care Service Access and Use
Hearing loss is one of the most common problems experienced by older adults, significantly impacts the well-being of these older adults and their families, and impacts society by preventing them from continuing to remain engaged in community activities and potentially contributing to cognitive decline. This minimizes their potential to effectively adapt to hearing aids or obtain other nonmedical treatment appropriate to their hearing health needs. This project specifically addresses these issues by developing, refining and testing a time-efficient, effective, primary care based screening and educational intervention protocol that will promote subsequent access to and successful use of hearing health care services. Role: Co-Investigator

1 R01 AG042526 Johnson, J. (PI) 8/1/12-7/31/17
NIH, National Institute on Aging
Community Choirs to Promote Healthy Aging and Independence of Older Adults
This study will examine the influence of participation in community-based choral programs on primary and secondary health outcomes among elderly patients. The study will evaluate the efficacy of the community choir program on health and well-being and evaluate program costs. Role: Co-Investigator

22RT-0120 Max, w. (PI) 08/01/13-01/31/16
California Tobacco-Related Disease Research Program
Health and Economic Toll of Tobacco on CA's LGBT Community
The objective of this study is to assess the health, healthcare utilization, and economic impacts of smoking in California’s lesbian, gay, bisexual, and transgender (LGBT) community. Role: Principal Investigator

22RT-0112 Sung, H-Y. (PI) 08/01/13-07/31/16
California Tobacco-Related Disease Research Program
Economic Impact of Tobacco Taxes in African American Community
This study will evaluate the impact of tobacco tax increases on cigarette smoking behavior and quitting behavior for African Americans, and assess whether tobacco tax increases are regressive to the African American community in California. Role: Co-Investigator
**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
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<tbody>
<tr>
<td>Suellen Miller, Ph.D., R.N. C.N.M., M.H.A</td>
<td>Professor</td>
<td>SUELLEN</td>
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</table>

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

<table>
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<th>INSTITUTION AND LOCATION</th>
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<th>FIELD OF STUDY</th>
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<tr>
<td>American University, Washington, DC</td>
<td>BA</td>
<td>05/69</td>
<td>English</td>
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<td>Montgomery College, Takoma Park, MD</td>
<td>AA</td>
<td>05/74</td>
<td>Nursing</td>
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<td>Meharry Medical School, Nashville, TN</td>
<td>CNM</td>
<td>05/77</td>
<td>Nurse-Midwifery</td>
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<tr>
<td>Antioch University West, San Francisco, CA</td>
<td>MA</td>
<td>05/82</td>
<td>Health Services Administration</td>
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<tr>
<td>University of California-San Francisco, San Francisco, CA</td>
<td>PhD</td>
<td>05/94</td>
<td>Family Health Care/Nursing</td>
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<tr>
<td>University of California-San Francisco, San Francisco, CA</td>
<td>Certificate</td>
<td>05/96</td>
<td>Advanced Biostatistics &amp; Epidemiology</td>
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**NOTE:** The Biographical Sketch may not exceed four pages. Follow the formats and instructions below.

A. **Personal Statement**

I am Director of the Safe Motherhood Program at the Bixby Center for Global Reproductive Health and Professor of the Dept. of Obstetrics Gynecology & Reproductive Sciences (OGRS, and Principal Investigator of NIH/NICHD R01 (HD053129-01A1 with a site in Zimbabwe). I have extensive experience in international reproductive health in a variety of countries and cultures, particularly Sub-Saharan Africa, including Nigeria, Uganda, Zambia, and Zimbabwe, and other countries outside the region, such as Mexico, India and Bangladesh. I am the UCSF faculty member who is senior advisor/investigator on the UZ-UCSF Clinical Trials Unit,, NIAID/NIH 5U01AI069436-02 , and a member of the UZ-UCSF Clinical Trials Unit Executive Committee. I travel to Zimbabwe at least twice a year for CTU activities and to monitor my R01.

Examples of my recent mentoring of fellows/junior faculty include: Dr. Janet Turan, in her NIH-1K01MH081777 NIMH, K-award in 2012 as junior faculty member in UCSF’s department of OGRS with whom I was co-investigator on her research on the effects of HIV epidemic on maternal health services delivery. Dr. Amy Stenson, MD, MPH, supported by an NIH “Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) fellowship worked with me in 2011 on my R01 HD053129-01A1 NIH/NICHD, Non-pneumatic Anti-Shock Garment for Obstetrical Hemorrhage. I was awarded an American Recovery and Reinvestment Act of 2009 (ARRA) supplement supporting a new PhD, Dr. Sheri Lippman (3R01HD053129-03S1). Recent fellows include: Dr. Catherine Todd, assistant professor in the Division of International Health & Cross-Cultural Medicine at UC San Diego in her NIH K study (K01TW007408-04) of peri-natal infections among pregnant women in Afghanistan. Dr. Sadia Haider, a Post Doctoral Family Planning Fellow in the School of Medicine at UCSF, was also mentored by me in her study of near-miss maternal mortality in Afghanistan, and a Diversity Scholar, Ms. Stephanie Boarden, 3R01HD053129-01A1S.
B. Positions and Honors

Positions:

1994-96 Postdoctoral Research Fellow, Institute for Health Policy Studies, School of Medicine, University of California, San Francisco
1997-00 Adjunct Assistant Professor, School of Public Health, University of California, Berkeley and Supervisor of Public Health Practice, School of Public Health, University of California, Berkeley
2000-02 Director, Expanding Contraceptive Choice Program, Population Council
2002-07 Adjunct Assistant Professor, Women's Global Health Imperative, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, CA and Director of Safe Motherhood Program, University of California, San Francisco, CA and Adjunct Assistant Professor, School of Public Health, Maternal and Child Health Program, University of California, Berkeley
2007-11 Associate Professor, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California San Francisco, Director of Safe Motherhood Program, Bixby Center for Global Reproductive Health. Adjunct Associate Professor, School of Public Health, Maternal and Child Health Program, University of California, Berkeley
2011-present Professor, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California San Francisco, Director of Safe Motherhood Program, Bixby Center for Global Reproductive Health. Associate Professor, School of Public Health, Maternal and Child Health Program, University of California, Berkeley

Honors:

1991-93 Scholastic Achievement and Potential for Leadership, University of California Regent's Graduate Fellowship Award, University of California, San Francisco
1991-95 National Research Service Award (NRSA), Pre-Doctoral Fellowship, National Center for Nursing Research, National Institutes of Health.
1993 Outstanding Service Award for Service on the Nurse Midwifery Advisory Committee, Board of Registered Nursing
1995 Distinguished Dissertation Award, School of Nursing, University of California, San Francisco
2005 First Place: Royal College of Obstetrics and Gynecology Poster Presentation, 6th Scientific Meeting, Cairo, Egypt
2006 Winner, American College of Nurse Midwives Notable Book, 2006: A Book for Midwives
2006 Women's Global Action Network, Royal Hashemite Court, Queen Rania Abdullah, Jordan
2008 Recipient, UCSF RAP (Resource Allocation Program) Flexible Mini-Sabbatical Award. To further focus efforts more intensively on current NASG research. Effective 7/1/08 – 6/20/09

C. Selected Peer-reviewed Publications

1. Butrick E; Penn, A; Itakura, K; Mkumba, G; Winter, K; Amafumba, R; Miller, S. Access to transport for women with hypovolemic shock differs according to weeks of pregnancy (2014) IJGO
2. Curtis, M; El Ayadi, A; Mkumba, G; Butrick, E; Leech, A; Geissler, J; Miller, S. Association Between Severe Obstetric Hemorrhage and HIV Status. (2014) IJGO; 125(1).
3. Sutherland, T; Downing, J; Miller, S; Bishai, D; Butrick, E; Fathalla, M; Mourad-Youssif, M; Ojengbede, O; Nsima, D; Kahn, J. Use of the non-pneumatic anti-shock garment (NASG) for life-threatening obstetric hemorrhage: A cost-effectiveness analysis in Egypt and Nigeria. 2013 PLoS ONE, 8(4): e62282. doi:10.1371/journal.pone.0062282


D. Research Support

Ongoing Research Support

Clinton Health Access Initiative Miller (PI) 9/2013-8/?2014
In collaboration with the Emergency Ultrasound Department, UCSF, to study the reduction in blood flow among normal healthy female volunteers who are placed in an anti shock garment.
Gynuity Health Projects  
Geller (PI)  
1/1/2011-7/31/2013

Prime Sponsor: Bill and Melinda Gates Foundation

Two community strategies comparing use of misoprostol for early treatment/secondary prevention to primary prevention for postpartum hemorrhage: a randomized cluster non-inferiority study in Bijapur district, Karnataka, India

This study will compare universal prophylactic treatment with “early treatment/secondary prevention” to inform service delivery programs on clinical outcomes, program feasibility, cost, and acceptability.  
Role: UCSF PI

NIAID/NIH 5U01AI069436-02  
Chirenje (PI)  
3/1/2007-11/30/2013

Renewed 11/2013-10/2020

UZ-UCSF Clinical Trials Unit (CTU) for HIV/AIDS Research  
Clinical trials unit for HIV prevention and treatment studies in Zimbabwe.  
Role: Senior Advisor

Completed Research Support

NIH/NICHD R01HD053129-01A1  
Miller (PI)  

Non-Pneumatic Anti-Shock Garment for Obstetrical Hemorrhage

Randomized cluster trial to test the effectiveness of the NASG as first aid hemorrhage and shock management to: 1) reduce the incidence of maternal mortality, 2) reduce the incidence of severe acute maternal morbidity, 3) reduce the incidence of emergency hysterectomies, and 4) reduce the time to recovery from hemorrhagic shock.  
Role: PI

48541, Bill and Melinda Gates Foundation  
Miller (PI)  
10/15/2007-10/31/2013

Cluster Randomized Trial of the NASG in Zambia and Zimbabwe

The purpose of the grant is to demonstrate the efficacy of the non-pneumatic anti-shock (NASG) garment among women in Zambia and Zimbabwe.  
Role: PI

07-90033-000-UNA-01-UCSF, Pathfinder International  
Prime: John T. And Catherine D. MacArthur Foundation  
Miller (PI)  
11/1/2007-5/31/2012

A Continuum of Care for Post Partum Hemorrhage (PPH) in India and Nigeria

Implementation project to test a package of interventions to prevent, identify, manage, and to refer/transport patients with PPH from the lowest level/home to appropriate facilities.  
Role: PI

NIH 3R01HD053129-03S1  
Miller (PI)  
6/1/2009-6/28/2012

Administrative Supplement under the American Recovery and Reinvestment Act (ARRA) of 2009 for the NASG R01 Study

Role: PI

John D. and Catherine T. MacArthur Foundation  
Miller (PI)  
12/1/2008-11/30/2010

Analysis and Dissemination for Findings of NASG Trials in Nigeria and Egypt

Role: PI

John D. and Catherine T. MacArthur Foundation  
Kastrinakis (PI)  
12/1/2008-11/30/2010

Millennium Development Villages, Columbia University

An implementation project targeted at improving maternal health with accepted interventions in model development villages.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Montagu, Dominic, Duncan

POSITION TITLE
Associate Adjunct Professor

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<th>INSTITUTION AND LOCATION</th>
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<tr>
<td>Massachusetts Institute of Technology, MA</td>
<td>S.B.</td>
<td>06/90</td>
<td>Architecture</td>
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<tr>
<td>University of California at Berkeley, CA</td>
<td>MBA</td>
<td>06/95</td>
<td>Non-Profit Management</td>
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<td>University of California at Berkeley, CA</td>
<td>MPH</td>
<td>06/95</td>
<td>International Health</td>
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<tr>
<td>University of California at Berkeley, CA</td>
<td>Dr.PH</td>
<td>06/03</td>
<td>MCH and Health Financing</td>
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<tr>
<td>London School of Hygiene and Tropical Medicine, UK</td>
<td>Visiting Academic, HPU</td>
<td>06/01</td>
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A. Personal Statement
While a visiting faculty at UC Berkeley I created what I believe to be the first course ever on issues of private healthcare in low- and middle-income countries. I have been lead faculty in the joint World Bank Institute / Asian Network on Health System Strengthening course on the private sector each year for the past three years. In that capacity I’ve led the development of overall course content, writing, commissioning, and editing of background papers, and approved all course materials and presentations. I have also mentored colleagues from Asian Institutes, supporting them as they become increasingly proficient in the material on private sector policy. Over the course of the three years this course has transitioned from being primarily taught by myself and other experts from the World Bank, to being about 60% taught by Asian faculty. The collaborations with these faculty, which continues, is a strong foundation upon which to base the proposed joint-training program.

B. Positions and Honors
Principals Positions Held

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<td>2003</td>
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<td>Specialist Researcher</td>
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<td>2002</td>
<td>2004</td>
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<td>2012</td>
<td>University of California, San Francisco, CA</td>
<td>Assistant Adjunct Professor</td>
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<tr>
<td>2012</td>
<td>present</td>
<td>University of California, San Francisco, CA</td>
<td>Associate Adjunct Professor</td>
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Other Positions Held Concurrently

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<td>2004</td>
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<td>UC Berkeley School of Public Health, CA</td>
<td>Visiting Lecturer / Faculty</td>
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<td>2005</td>
<td>2007</td>
<td>World Health Organization, Geneva</td>
<td>Secretariat, NSS</td>
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Honors Awards
1993 Southeast Asian Traveling Research Fellowships Berkeley
1994 Foreign Language and Area Studies (FLAS) Fellowship
1995 Foreign Language and Area Studies (FLAS) Fellowship
1998 Bixby Fellow for Population & Family Planning
1999 Bixby Fellow for Population & Family Planning
1999 Federal (DHHS) MCH Economic Analysis Traineeship
2000 Federal (DHHS) MCH Economic Analysis Traineeship
2000 Bixby Fellow for Population & Family Planning
2001 Bixby Fellow for Population & Family Planning
2002 Gary K. Stewart Memorial Prize

Memberships
2002 present International Health Economics Association
2012 present Health Systems Global

Service to Professional Organizations

C. Selected Peer-Reviewed Publications
15. Sabot O, Schroder K, Yamey G, Montagu D. Scaling up oral rehydration salts and zinc for the

D. Research Support

**On-going Research Support**

<table>
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<tr>
<th>Project ID</th>
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<td>01/01/2012 - 12/31/2012</td>
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<tr>
<td>ExxonMobil</td>
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<tr>
<td>Ensuring Proper Malaria Diagnosis and Treatment in Nigeria</td>
<td>Role: PI</td>
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<tr>
<td>A118380</td>
<td>01/01/2010 - 10/01/2012</td>
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<tr>
<td>Rockefeller Foundation</td>
<td>Social Franchising Research</td>
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<tr>
<td>A115100</td>
<td>05/01/2010 - 06/30/2013</td>
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<tr>
<td>Population Services International</td>
<td>Role: PI</td>
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<td>PSi/Myanmar Collaborative Impact Studies</td>
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<td>A118573</td>
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<tr>
<td>Bill and Melinda Gates Foundation</td>
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<td>pending (Foundation Ref: THS 307)</td>
<td>04/01/2013 - 03/31/2015</td>
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<tr>
<td>Rockefeller Foundation</td>
<td>Enhancing the Social Franchising Community of Practice: Building a Scientific Foundation for Programs</td>
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<td>P0048793</td>
<td>03/01/2012 - 10/31/2015</td>
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<td>Social Franchising Community of Practice</td>
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<td>World Health Organization</td>
<td>A Systematic Review of Social Franchising Impact on Health</td>
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<td>Role: PI</td>
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**Completed Research Support**

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<tr>
<td>Rockefeller Foundation</td>
<td>Health Franchising</td>
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<tr>
<td>A114749</td>
<td>04/15/2010 - 04/14/2012</td>
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<tr>
<td>Results for Development</td>
<td>Documenting Informal Providers</td>
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<tr>
<td>HE 0077; A-2344</td>
<td>10/01/2003 - 12/01/2004</td>
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<tr>
<td>Rockefeller Foundation</td>
<td>Health Franchising and Community Insurance</td>
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<td>A21/374/1</td>
<td>07/01/2005 - 12/31/2005</td>
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<tr>
<td>World Health Organization</td>
<td>Triangulation of HIV Data in Bostwana</td>
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Role: Co-Researcher
H15-370-20  
World Health Organization  
Private Sector Secretariat  
Role: PI

#1186  
Family Health International  
Creating a Social Franchising for HIV in Kenya  
Role: PI

Abt Associates  
Evaluating private HIV care in Kenya  
Role: PI

Centers for Disease Control / Kenya  
Triangulation of HIV Data  
Role: Co-PI

A113644  
Rockefeller Foundation  
Social Franchising Community of Practice  
Role: PI

A113946  
ExxonMobil  
Private Sector Malaria Treatment  
Role: PI

A11442  
The World Bank Group  
Private Sector Policy Stewardship  
Role: PI

AA108197  
Bill and Melinda Gates Foundation  
Analysis to Action  
Role: Researcher

A115457  
UK Department for International Development  
Systematic Review: under what circumstances do the provision of services by the private and not-for-profit sectors improve the health of the poor?  
Role: PI

A115467  
Rockefeller Foundation  
Planning for a Pre-Congress Symposium on the Private Sector  
Role: PI

P0039175  
ExxonMobil  
Malaria Care in Nigeria  
Role: PI

A117063  
World Health Organization
Social Franchising Conference
Role: PI
A117309
Bill and Melinda Gates Foundation
First Global Conference on Social Franchising
Role: PI
04/15/2011 - 12/30/2011
Biographical Sketch – Carmen J. Portillo, Department Chair and Professor
eRA Commons User Name: portillo

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<th>FIELD OF STUDY</th>
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<tr>
<td>University of Arizona, Tucson, AZ</td>
<td>BSN</td>
<td>6/1981</td>
<td>Nursing</td>
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<tr>
<td>University of Arizona, Tucson, AZ</td>
<td>MS</td>
<td>6/1986</td>
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<tr>
<td>University of Arizona, Tucson, AZ</td>
<td>PhD</td>
<td>6/1990</td>
<td>Nursing</td>
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A. Personal Statement
I am Professor and Chair of the Department of Community Health Systems in the School of Nursing (SON), University of California, San Francisco. I am the Co-Director of the School of Nursing’s HIV/AIDS Nursing Care and Prevention training grant (T32 NR07081). I am currently the Director of a NINR funded T32 in the School of Nursing. My clinical nursing background is in community and mental health nursing. I am PI of three HRSA training grants in the development and training of HIV/AIDS nurse practitioners. My program of research has focused on adherence, stigma, and symptoms in people with HIV/AIDS. Currently, I am Co-PI of a multi-site qualitative research project on understanding health literacy in people with HIV/AIDS and providers in HIV/AIDS. Approximately in 2000, I began collaborating with Dr. William Holzemer on a HIV/AIDS research project that was co-located in 5 African countries. The research focused on stigma among people with HIV/AIDS and for those that cared for people with HIV/AIDS. In 2007, I was funded for four years by the American International Health Alliance for two years to train all the employed nursing faculty in 68 schools of nursing on HIV/AIDS. This project evolved into curricula development and implementing skills labs and other teaching resources supported by CDC. I worked with Dr. Chris Stewart on a R25 NIH Fogarty International grant to provide didactic multidisciplinary learning internationally. As a collaborator on the MUHAS-UCSF Academic Learning Project funded by Bill & Melinda Gates Foundation, I worked on the MUHAS nursing curriculum. I have mentored over 45 doctoral students in my 23 year career and have supported approximately 8 students through the F31 process. I advise five nursing doctoral students; and one entering in September 2014. Over the years since my global involvement, I have informally mentored international nursing students and faculty. I maintain a teaching load in nursing with masters and doctoral students. I am a Fellow of the American Academy of Nursing.

B. Positions and Honors
1985-1989 American Nurses’ Association, Minority Fellow Award
1993-now Member, American Nurses in AIDS Care; Board member Journal of ANAC
1996 Fellow, American Academy of Nursing
1998-2000 President, National Hispanic Nurses’ Association
1999-2003 Member, National Institute of Nursing, NIH, Advisory Council
2002-now Charter Member, National Coalition of Ethnic Minority Nurses Association, Inc.
2003-2005 Specialty Coordinator, Advance Community Health & Intl Nursing, UCSF SON
2009 Sigma Theta Tau, Alpha Eta Chapter, Margretta Madden Styles Award
2009-now Chair, Department of Community Health Systems, School of Nursing, UCSF

C. Selected Peer-reviewed Publications

...


### D. Research and Training Support

<table>
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<tr>
<th>Fellowship</th>
<th>Agency</th>
<th>Principal Investigator</th>
<th>Years</th>
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<tbody>
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<td>D09HP03285-01-00</td>
<td>DHHS, HRSA, BHP: Positive Health: HIV Advanced Practice Nurse Educ</td>
<td>Portillo (PI)</td>
<td>2004-2014</td>
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<tr>
<td>D62HP24191</td>
<td>DHHS, HRSA, CGEP Geriatric and Psychiatric Nurse Training</td>
<td>Portillo (PI)</td>
<td>07/01/2012 - 06/30/2015</td>
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<tr>
<td>H4AHA26223</td>
<td>DHHS, HRSA, HIV Advanced HIV/AIDS Training for Nurse Practitioners</td>
<td>Portillo (PI)</td>
<td>09/01/2013 - 06/30/2018</td>
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</table>

The goal is to train nurse researchers to build the knowledge base about HIV/AIDS and to prepare advanced practice nurses to provide expert comprehensive services to people living with HIV/AIDS. The goal is to prepare nurse practitioners with a concentrated focus in geriatric and psychiatric nursing focus. Preparing nurse practitioners to care and treat people with HIV/AIDS.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME
Rankin, Sally H.

POSITION TITLE
Professor

eRA COMMONS USER NAME
Rankins

EDUCATION/TRAINING  *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Duke University, Durham, NC</td>
<td></td>
<td>1962-64</td>
<td>Sociology</td>
</tr>
<tr>
<td>Boston University, Boston, MA</td>
<td>BA (cum laude)</td>
<td>1966</td>
<td>Sociology</td>
</tr>
<tr>
<td>California State Univ., Los Angeles</td>
<td>BSN (magna)</td>
<td>1974</td>
<td>Nursing</td>
</tr>
<tr>
<td>Duke University, Durham, NC</td>
<td>MSN</td>
<td>1978</td>
<td>Nursing</td>
</tr>
<tr>
<td>Univ. of California, San Francisco</td>
<td>PhD</td>
<td>1988</td>
<td>Nursing</td>
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A. Personal Statement

My teaching and research since 1988 has focused on chronic diseases, primarily cardiovascular, diabetes mellitus, and HIV. My teaching at UCSF has been primarily in the doctoral program in the School of Nursing. I have either chaired or been on the dissertation committees of 81 doctoral students at Boston College and UCSF am well prepared to work with students enrolled in the proposed PhD program in Global Health Sciences. I have been a faculty member on the UCSF School of Nursing’s T32 on HIV/AIDS Nursing Care and Prevention and have mentored numerous international students at UCSF and Boston College. I currently advise students in the GHS masters program and have mentored students’ capstone projects in Malawi yearly since 2011. I serve on the University of California Global Health Institute (UCGHI) Fogarty funded pre- and post-doctoral GloCal Steering Committee and have been a member of the admissions screening committee for the last 3 years.

My sixth NIH funded project, Malawi Christians and Muslims: HIV prevention and care (R01 HD 050147) was a mixed methods study of 750 participants who were members of 5 different Malawi religious groups. The primary study aim was to: 1) describe the strategies used by 5 Christian and Muslim religious groups to prevent HIV infection and to care for people living with HIV/AIDS (PLWHA). Concurrent with this study I was co-investigator on a planning grant that was funded by the Doris Duke Charitable Trust African Health Initiative. Following this work I collaborated with Dr. Lynda Wilson from the University of Alabama-Birmingham on a proposal in response to a RFA from the Bureau of Educational and Cultural Affairs (ECA), United States Department of State. The purpose of this project focused on Malawi and Zambia was to train public health and other health care professionals in their work with marginalized groups. Currently I am part of the faculty group in the School of Nursing working on the Preterm Birth (PTB) Initiative. If funded, my group of 4 projects would work in Malawi.

Other global health experience includes my work with a large USAID project funded through the Global Health Initiative, Building the Nursing Workforce & Nurse Training Capacity in Malawi on which I am the sub-contract PI. The purpose of this project is build pre-service and in-service nursing capacity in Malawi in the areas of HIV, ART, Basic Emergency Obstetric and Newborn Care, and triage. This project has required interface with the Ministry of Health and other Malawi governmental agencies.

B. Positions and Honors.

Positions and Employment

<table>
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<td>Duke University Medical Center, Durham, NC, Staff Nurse</td>
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<tr>
<td>1975-77</td>
<td>Durham County General Hospital, Durham, NC, Inservice Education Instructor</td>
<td></td>
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<tr>
<td>1978-80</td>
<td>Duke University School of Nursing, Durham, NC, Instructor</td>
<td></td>
</tr>
<tr>
<td>1980-82</td>
<td>Mt. St. Mary's College, Los Angeles, Chalon Campus, Assistant Professor</td>
<td></td>
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<tr>
<td>1982-83</td>
<td>University of Southern California, Los Angeles, Assistant Professor</td>
<td></td>
</tr>
</tbody>
</table>
1988-90 University of California, San Francisco, Assistant Clinical Professor
1990-93 University of California, San Francisco, Assistant Professor
1993-98 Boston College School of Nursing, Chestnut Hill, MA, Associate Professor and Director, Family Nurse Practitioner Program
1998-2004 University of California, San Francisco, Associate Professor & Director, FNP Program
University of California, San Francisco, Professor & Director, FNP Program
2004-2010 Chair, Department of Family Health Care Nursing, University of California, San Francisco
2010-now Associate Dean, UCSF School of Nursing International Programs and Global Health
2010-2011 Interim Dean, UCSF School of Nursing

Honors
1984-85 University of California Regents Fellowship
1985-88 National Research Service Award (F31NR05787)
1987-88 USCSF Chancellor's Graduate Research Fellowship
1987 Outstanding Student Award, National Council on Family Relations, Runner-up
1987-88 American Heart Association, SF Chapter, Clinical Nursing Research Fellowship
1989 Carol A. Lindeman Award for a New Researcher, Western Society for Research in Nursing, Western Institute of Nursing
1994 Distinguished Alumna Award, Duke University School of Nursing
1995 Fellow of the American Academy of Nursing (FAAN)
2001 Harriet Cook Carter Lecturer, Duke University School of Nursing Alumnae Day
2002 UCSF Graduate Student Association Faculty Mentorship Award (Nominee)
2004 Doctoral Mentor of the Year Award, UCSF Doctoral Students
2005 Best Abstract Award, American Heart Association
2007 Achievement in Research Award, National Organization of Nurse Practitioner Faculties
2011 Margretta Styles Award for Excellence in Nursing, Alpha Beta Chapter of Sigma Theta Tau
2012 Duke University School of Nursing, Distinguished Nurse Researcher Award

B. Selected Peer-Reviewed Publications (In chronological order; 17 out of 65 peer-reviewed).


Books and Book Chapters

C. Research Support.

Ongoing Research Support


Past Research Support

1. U.S. Department of State, Bureau of Educational and Cultural Affairs (Rankin, PI on subcontract) Promoting Global Health by Strengthening Capacity for Education of Health Professionals through a Professional Fellows Program Involving Faculty from Zambia, Malawi, Alabama, and California. ECA/PE/C-10-01; Federal Domestic Assistance Number: 19.415. 10/1/10-9/30/12; $222,047.
2. 1 RO1 HD050147-01 (Rankin, PI) Malawi Christians and Muslims: HIV Prevention and Care; 8/10/06 – 7/31/11; NIH / NICHD; $881,239
3. Integrated Primary Health Care and Workforce Training in Zomba District Malawi (Rankin Co-I) 10/1/08-3/31/09; Doris Duke Charitable Foundation, African Health Initiative; $150,000.
4. 2 D09HP00570-04 00 (Rankin Co-PI) Primary Care of High-Risk Populations: The PrimeRISK II Program; 7/1/03 - 6/30/09; HRSA, Department of Health and Human Services.
5. R01 NR05205  (Rankin PI) Improving Health Outcomes for Elderly Unpartnered Cardiac Patients; 2000-2004; National Institute of Nursing Research/NIH; $1,116,545.
6. R15 NR04255 Rankin (PI); Improving health outcomes for elderly unpartnered MI patients; 1996-99; National Institute of Nursing Research/NIH; $117,000.
7. R55 NR 021617 (Shannon Award) Rankin (PI); African- and Anglo-American women adapting to MI; 1992-95; National Institute of Nursing Research/NIH; $100,000.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
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<th>POSITION TITLE</th>
<th>eRA COMMONS USER NAME (credential, e.g., agency login)</th>
</tr>
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<tr>
<td>Arthur L. Reingold, MD</td>
<td>Professor, Division of Epidemiology</td>
<td>Reingold</td>
</tr>
<tr>
<td></td>
<td>Associate Dean for Research,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>School of Public Health</td>
<td></td>
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**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

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<th>DEGREE (if applicable)</th>
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<th>FIELD OF STUDY</th>
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<tr>
<td>University of Chicago, Chicago, Illinois</td>
<td>AB</td>
<td>1970</td>
<td>Biology</td>
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<tr>
<td>University of Chicago, Chicago, Illinois</td>
<td>MD</td>
<td>1976</td>
<td>Medicine</td>
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</table>

**A. Personal Statement**

Dr. Reingold has been conducting field studies of various infectious diseases in the U.S. and in multiple developing countries for 30+ years, including studies of healthcare associated infections; bacterial meningitis and pneumonia; tuberculosis, malaria, and HIV/AIDS; influenza; and various vaccine preventable diseases in children and adults. As the director of the NIH-funded UCB/UCSF AIDS International Training and Research Program (AITRP) since 1988, Dr. Reingold has provided degree (masters and doctoral) and non-degree training to numerous young investigators from multiple developing countries, including Brazil, Peru, India, Vietnam, Uganda, Zimbabwe, Ivory Coast, and Kenya. In his role as co-director of the NIH-funded Infectious Diseases Training Program at UCSF and through his work with pre- and post-doctoral trainees at UC Berkeley, Dr. Reingold has also mentored numerous U.S. physicians, veterinarians, dentists, and PhD researchers conducting infectious disease research in the U.S. and internationally. He currently serves on the Training Advisory Committee of the NIH-funded Medical Education Partnership Institute (MEPI) of the University of Zimbabwe. **Based on my experience in clinical research training programs and global health and research capacity development, I am qualified to be a member of the the UCB-UZ HIV Research Training Program’s Training Advisory Committee.**

**B. Positions and Honors:**

- Professor and Head, Division of Epidemiology, School of Public Health, University of California, Berkeley.
- Professor of Epidemiology & Biostatistics/Clinical Professor of Medicine, University of California, San Francisco
- Associate Dean for Research, School of Public Health, University of California, Berkeley
- Edward Penhoet Distinguished Chair of Global Health and Infectious Diseases
- Member, Institute of Medicine

**1979-1980** Epidemic Intelligence Service Officer - Connecticut State Department of Health Services, Hartford, Connecticut

**1980-1981** Epidemic Intelligence Service Officer - Special Pathogens Branch, Centers for Disease Control, Atlanta, Georgia

**1981-1985** Assistant Chief, Respiratory and Special Pathogens Epidemiology Branch, Division of Bacterial Diseases, Center for Infectious Diseases, Centers for Disease Control - Atlanta, Georgia

**1985-1987** Centers for Disease Control (CDC) Liaison Officer, Office of the Director, CDC - Atlanta, Georgia
C. **Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.**


D. **Research Support.**
Ongoing

California Emerging Infections Program
(A. Reingold, P.I.) 01/01/12 - 12/31/17
Centers for Disease Control and Prevention (CDC) 235.006.901
California Emerging Infections Program
This CDC-funded research program, which has been in place since 1994, is a collaborative effort of the School of Public Health, the University of California, Berkeley, the California Department of Public Health Services, and selected county health departments. The program is funded to study a wide range of infectious diseases, including viral hepatitis; viral encephalitis; foodborne enteric infections (bacterial and viral); bacterial meningitis and pneumonia; influenza; waterborne infections, and unexplained illnesses and deaths, among others. The goal of this cooperative agreement is to study a variety of emerging/re-emerging infectious diseases in California.

Fogarty International AIDS Research Training Program
(A. Reingold, P.I.) 06/01/08 – 05/31/14
National Institutes of Health/Fogarty Center D43-TW00003
Fogarty International AIDS Training grant
This NIH-funded training program in place since 1988, is designed to train physicians, laboratory scientists, and others from selected developing countries in how to conduct high quality, epidemiologic, virologic, immunologic, behavioral, and health policy-related AIDS research. Dr. Reingold has been the principal investigator since the program’s inception in 1988. The goal of this grant is to train medical personnel from third-world focus countries in AIDS-related research/training techniques.

Berkeley Minority Health/Global Health (MH/GH) Training Program
(A. Reingold, P.I.) 06/01/09 – 11/30/14
NCMHD Minority Health and Health Disparities International Research Training
The Berkeley Minority Health/Global Health Training Program provides training of junior investigators in health disparities research, including provision of research experiences in low-resource settings in the developing world and will replenish the pipeline of health professionals and health scientists to be able to effectively address public health disparities in the United States.

UCB-UCSF-MU Research Training on TB and Other Pulmonary Complications of HIV
(A. Reingold, P.I.) 08/01/13 – 01/31/18
NIH Fogarty International Center
This program will train medical doctors, scientists, laboratory technicians, and other research support personnel at Makerere University College of Health Sciences and Mulago National Referral Hospital in translational research methods for the study of pulmonary complications of HIV. This will strengthen the capacity of these institutions to conduct high quality, innovative, and locally relevant HIV/AIDS research.

HIV Implementation Science and Research Training Program (FHISTRP)
(A. Reingold, P.I.) 08/01/13 – 01/31/18
NIH Fogarty International Center
This training program provides HIV/AIDS-related research training in conjunction with and support of the University of Zimbabwe’s College of Health Sciences, in Harare, Zimbabwe. The training program is intended to strengthen the faculty of the College of Health Sciences, which has been severely diminished over the past decade by economic and social problems in Zimbabwe.

Completed
N/A
## BIOGRAPHICAL SKETCH

<table>
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<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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<tr>
<td>Teri A. Reynolds</td>
<td>Assistant Professor and Director of Global Health, Department of Emergency Medicine, UCSF</td>
</tr>
<tr>
<td></td>
<td>Emergency Medicine Residency Program Director, Muhimbili National Hospital, Dar es Salaam, Tanzania</td>
</tr>
<tr>
<td>eRA COMMONS USER NAME: TERIR1</td>
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## EDUCATION/TRAINING

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<tr>
<td>Columbia University, New York, NY</td>
<td>BA</td>
<td>1992</td>
<td>Literature</td>
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<td>Columbia University</td>
<td>PhD</td>
<td>2001</td>
<td>Literature</td>
</tr>
<tr>
<td>UCSF School of Medicine, San Francisco, CA</td>
<td>MD</td>
<td>2004</td>
<td>Medicine</td>
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<tr>
<td>Highland General Hospital, Oakland, CA</td>
<td>Residency</td>
<td>2005-09</td>
<td>Emergency Medicine</td>
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<tr>
<td>UCSF Global Health Sciences</td>
<td>MS</td>
<td>2009-10</td>
<td>Global Health</td>
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<tr>
<td>UCSF Department of Emergency Medicine</td>
<td>Fellowship</td>
<td>2009-10</td>
<td>Emergency Ultrasound</td>
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</table>
A. Positions and Honors

Positions and Employment
1998-99 Instructor, Literature and Medicine, The New York Academy of Medicine, New York
2000 Instructor, Theory and Practice of Science, Dept. of Biology, Columbia University, New York
2001-02 Instructor, Literature and Medicine, UCSF School of Medicine
2005-2009 Emergency Medicine Residency, Alameda County Medical Center (Highland Hospital)
2008-2009 Chief Resident, Emergency Medicine, Alameda County Medical Center (Highland Hospital)
2009-10 Emergency Ultrasound Clinical Fellow, Department of Emergency Medicine, UCSF
2010 World Health Organization, Geneva. Technical Officer, Human Resources for Health
2011-pres Assistant Professor of Emergency Medicine, UCSF
2011-pres Emergency Medicine Residency Program Director, Muhimbili National Hospital, Dar es Salaam, Tanzania.
2013 World Health Organization Global Alliance for the Care of the Injured, Secretariat

Other Experience
2013-present Emergency Medicine Journal (BMJ). Associate Editor
2004-2005 Founder and Editor, The Learning Curve section, Medscape General Medicine/ WebMD
2003-2007 Journal of the American Medical Association, Student JAMA. Assoc. Editor, Deputy Editor, Editor-in-Chief

Honors
2013 Society for Academic Emergency Medicine EM Globalization and Advancement Award
2010-2013 UCSF Burke Family Global Health Faculty Award
2009 USCF Department of Emergency Medicine “Backbone” Resident Award
2007-08 Annals of Emergency Medicine Resident Editorial Fellowship
2004 Alpha Omega Alpha – UCSF Medical School
2003, 2004 UCSF Dean's Quarterly Research Fellowship
1999 Endocrine Society Research Fellowship
1992-98 Columbia University President's Fellowship
1991-92 Marjorie Hope Nicolson Fellowship
1987 Experiment in International Living Fellowship to Kenya

B. Publications

2. Issue Editor, MSJAMA: Creative Writing. Author: Once Upon a Time... JAMA. 2003; 289:612-617.


26. Wallis LA, Reynolds TA. AFEM Handbook of Acute and Emergency Care. Oxford University Press,


C. Current Funding:

Reynolds (PI): UCSF Global Health Sciences Burke Family Foundation award ($166,500, 2011-14)

Reynolds (PI): Abbott Fund Foundation award (to date $2,182,000, 2011-2014) for Tanzania Emergency Medicine Initiative, funding to direct Emergency Medicine Residency Program at Muhimbili Hospital and coordinate 5 university consortium to provide faculty to Muhimbili National Hospital).

Reynolds (Co-PI): UCSF Resource Allocation Program ($29,700, 2013-14) "Assessment of burns in resource limited settings via teleconsultation".
A. Personal statement. I have studied molecular, clinical, and epidemiological aspects of malaria for over 25 years, including basic and drug discovery studies at UCSF and clinical and epidemiology studies in Uganda and Burkina Faso. I have trained about two dozen postdoctoral fellows and about four dozen predoctoral students in various aspects of malaria research. I have overseen a training grant from the Fogarty International Center, entitled “Training in Malaria Research in Uganda” since 2000, with about 50 Ugandan trainees to date. I have served as faculty on other training grants and participated in many didactic training activities. Thus, I believe that I am well qualified to continue to lead our training program in Uganda.

B. Positions and Honors


C. Selected Relevant Publications (from >300)


Principal Investigator/Program Director (Last, first, middle): Rosenthal, Philip J.


D. Research support.

ONGOING:

**Project Number:** 1RO1AI075045 (PI: Rosenthal) **Dates:** 7/09-6/14 (renewal anticipated; priority score=10; percentile=1.0)

*Source:* NIH/NIAID  *Title:*  Resistance of Malaria Parasites to Artemisinin-Based Combination Therapies

*Aims:* (1) To identify genotypes associated with decreased responses to ACTs in Africa. (2) To assess molecular mechanisms and parasitological consequences of increasing resistance to ACTs. (3) To characterize the specific impacts of parasite polymorphisms on drug sensitivity and fitness.

**Project Number:** 5D43TW007375-07 (PI: Rosenthal) **Dates:** 7/05-6/15 (renewal pending)

*Source:* NIH (Fogarty International Center)  *Title:*  Training in Malaria Research in Uganda

*Major goals:* Training Ugandan investigators in clinical, epidemiologic, and molecular malaria research.

**Project Number:** 1U19AI089674 (PI: Rosenthal) **Dates:** 7/10-6/17

*Source:* NIH/NIAID  *Title:*  Discovery of Oxaboroles as New Antimalarial Agents

*Major goals:* (1) Hit-to-lead discovery of oxaborole antimalarials. (2) Lead optimization of oxaborole antimalarials. (3) Characterization of the mechanims of action and resistance for oxaboroles.

**Project Number:** Not applicable (PI: Rosenthal) **Dates:** 1/13-1/15

*Source:* UCSF Research Evaluation and Allocation Committee  *Title:*  Etiology of non-malarial febrile illnesses in Ugandan children

*Major goals:* (1) To characterize the clinical presentations of Ugandan children admitted to a rural hospital with fever. (2) To use deep sequencing to characterize the microbiomes of these children.

**Project Number:** Not applicable (PI: Rosenthal) **Dates:** 7/13-12/14

*Source:* Doris Duke Charitable Foundation Clinical Research Mentorship  *Title:*  Etiology of non-malarial febrile illnesses in Ugandan children

*Major goals:* (1) To characterize the clinical presentations of Ugandan children admitted to Tororo District Hospital with fever. (2) To search for associations between specific clinical syndromes and the identification of known and novel pathogens in clinical samples.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Rutherford, George W., M.D., M.A.

POSITION TITLE
Salvatore Pablo Lucia Professor, Vice Chair and Head, Division of Infectious Disease Epidemiology, Department of Epidemiology and Biostatistics

eRA COMMONS USER NAME
GRUTHERFORD

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(S)</th>
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<tr>
<td>Stanford University, Stanford, CA</td>
<td>A.B., B.S.</td>
<td>1970-75</td>
<td>Classics, Chemistry</td>
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<tr>
<td>Stanford University, Stanford, CA</td>
<td>M.A.</td>
<td>1974-75</td>
<td>History</td>
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<tr>
<td>Duke University, Durham, NC</td>
<td>M.D.</td>
<td>1975-78</td>
<td>Medicine</td>
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</table>

A. Personal Statement
The purpose of this proposal is to establish a premier doctoral program in global health that will guide and contribute to the knowledge base of this emerging discipline. I teach and mentor masters and doctoral students in infectious disease epidemiology and global public health policy both at UCSF and at the University of California, Berkeley.

B. Positions and Honors

Positions and Employment
1978-80 Intern and Resident, Department of Pediatrics, University of California, San Diego, San Diego, CA
1980-81 Resident, Department of Paediatrics, Hospital for Sick Children and University of Toronto, Toronto, ON
1981-82 Chief Resident, Department of Pediatrics, University of California, San Diego, San Diego, CA
1982-84 Epidemic Intelligence Service (EIS) Officer, Division of Viral Diseases, (1982-3); Division of Field Services (1983-4, assigned to the New York City Department of Health), CDC, Atlanta, GA
1983-85 Director, Division of Immunization, and Acting Director, Division of Tropical Diseases, Bureau of Preventable Diseases, New York City Department of Health, New York, NY
1984-87 Medical Epidemiologist, Epidemiology Program Office (1984-5, assigned to New York City Department of Health); Medical Epidemiologist, AIDS Program, Center for Infectious Diseases (1985-7, assigned to San Francisco Department of Public Health), Centers for Disease Control, Atlanta, GA
1985-90 Chief, AIDS Division, Bureau of Communicable Disease Control (1985-6); Medical Director (1986-8) and Director (1988-90), AIDS Office, San Francisco Department of Public Health, San Francisco, CA
1990-95 Chief, Infectious Disease Branch (1990-2); State Epidemiologist (1990-5); Deputy Director, Prevention Services (1992-5); State Health Officer (1993-5), California Department of Health Services, Berkeley, CA
1995-97 Associate Dean for Administration (1995-7), Professor of Epidemiology and Health Administration (1995-now), School of Public Health, University of California, Berkeley, CA
1997-now Salvatore Pablo Lucia Professor of Preventive Medicine, Epidemiology and Pediatrics, Head, Division of Infectious Disease Epidemiology, and Vice Chair, Department of Epidemiology and Biostatistics, School of Medicine, University of California, San Francisco, San Francisco, CA
2002-14 Director, Institute for Global Health, University of California, San Francisco, San Francisco, CA
2010-now Head, Prevention and Public Health Group, UCSF Global Health Sciences

Other Experience and Professional Memberships
1996-now Director, Joint UCB-UCSF Residency Program in General Preventive Medicine and Public Health
1997-now Coordinating Editor, Cochrane Collaborative Review Group on HIV Infection and AIDS
2000-03 U.S. Department of Veterans Affairs, National Research Advisory Council (chair)
2004-08 American Academy of Pediatrics, Section on Epidemiology (chair)
2003-04 Institute of Medicine, Committee on the Ryan White Care Act
2004-05 Institute of Medicine, Committee on HIVNET 012
2005-06 Institute of Medicine, Committee on Gulf War and Health: Review of the Medical Literature Relative to Gulf War Veterans’ Health
2007-08 Institute of Medicine, Committee on Methodologic Challenges in HIV Prevention Trials
2007-08 Institute of Medicine, Committee on Gulf War and Health: Traumatic Brain Injury (Chair)
2008-12 Institute of Medicine, Board on Population Health and Public Health Practice
2009-13 Institute of Medicine, Committee on Readjustment Needs of Returning Veterans (Chair)
2010-14 National Institute of Child Health and Human Development Advisory Council
2011-14 Institute of Medicine, Board on the Health of Select Populations

Honors
1998 Distinguished Alumnus Award, The Bishop’s School, La Jolla, CA
2000 Eileen K. Taw, M.D., Memorial Public Health Lecturer, Riverside County Department of Public Health, CA
2000 Excellence in Teaching Award, California Department of Health Services Preventive Medicine Program
2000 Salvatore Pablo Lucia Symposium Lecturer, University of California, San Francisco
2002 Excellence in Research Award (Clinical), Children’s Hospital Oakland Research Institute
2002 F. Marian Bishop Educator of the Year Award, Association of Teachers of Preventive Medicine
2009 Holly Smith Award for Exceptional Service to the School of Medicine, UCSF

C. Selected Peer-Reviewed Publications (Selected from 163 peer-reviewed publications)

Most relevant to current application


BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Dean Schillinger, MD

POSITION TITLE
Professor of Medicine, University of California School of Medicine (UCSF)

eRA COMMONS USER NAME (credential, e.g., agency login)
Schillinger

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<tr>
<td>Brown University</td>
<td>BA</td>
<td>06/86</td>
<td>Russian Language and Literature</td>
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<td>University of Pennsylvania, Philadelphia, PA</td>
<td>MD</td>
<td>06/91</td>
<td>Medicine</td>
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<td>UC San Francisco, SF General Hospital, SF, CA</td>
<td>Resident Chief Resident</td>
<td>1991-94</td>
<td>Internal Medicine</td>
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<tr>
<td>UC San Francisco, SF General Hospital, SF, CA</td>
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<td>Advanced Clinical Research Scholar</td>
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<tr>
<td>UCSF Department of Epidemiology and Biostatistics</td>
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A. Personal Statement of Qualification

Dean Schillinger MD is a general internist and primary care physician and Chief of the UCSF Division of General Internal Medicine at San Francisco General Hospital. An international research expert on health communication and chronic diseases, he founded the UCSF Center for Vulnerable Populations, and currently directs its Health Communications Research Program. Dr. Schillinger served a 5 year term as Chief Medical Officer for the Diabetes Prevention and Control Program for California from 2008-13. He previously directed the ambulatory care clinics at SFGH. He has focused his research on health communication for vulnerable populations, carrying out a number of studies exploring the impact of limited health literacy on the care of patients with diabetes and heart disease. He has been awarded research grants from NHLBI, NIDDK, AHRQ, CDC, PCORI and private foundations, including support to develop and evaluate care management programs tailored to the literacy and language needs of patients with chronic disease, such as diabetes, atrial fibrillation and heart failure. He has published over 160 peer-reviewed scientific articles in the field of health communication science and chronic disease prevention and control. Dr. Schillinger contributed to the 2004 IOM Report on Health Literacy and authored a 2012 IOM publication defining the attributes of Health Literate Healthcare Organizations. He was honored with the 2003 Institute for Healthcare Advancement Research Award, the 2008 Research Award in Safety and Quality from the National Patient Safety Foundation and the Bay Area Research Mentor of the Year Award in 2010. Most recently, he helped California garner a CMS grant to provide incentives to reduce tobacco consumption among Medicaid beneficiaries, and he co-founded the AHRQ-supported California Association of Public Hospital Systems Evidence Network and Innovations Exchange, known as PHoENIX. Dr. Schillinger has also co-created a youth-led diabetes prevention social media campaign called The Bigger Picture, http://youthspeaks.org/thebiggerpicture/. In 2013, he received the prestigious Everett M Rogers Award from APHA in recognition of his outstanding contributions to advancing the study and practice of public health communication.

B. Positions and Honors

1995-2002 Assistant Professor, UCSF Division of General Internal Medicine
1995-8 Medical Director, General Medical Clinic, SFGH
1998-2001 Medical Director, Clinical Operations SFGH Department of Medicine
1999-2000 Acting Chief, UCSF/SFGH Division of General Internal Medicine
2001-3 Coordinator, SGIM Health Literacy Research Interest Group
2002-4 Physician Advocacy Fellow, California Literacy
2003-4 Scientific Advisory Board, ACP Health Communication Initiative
1995-present Faculty, UCSF Primary Care Research Center, Medical Effectiveness Research Center
2002-present Associate Professor of Medicine, UCSF Division of General Internal Medicine
2006 Visiting Scholar (1 semester), University of Chile School of Public Health, Santiago, Chile
2006-2011 Director, UCSF Center for Vulnerable Populations
2008-present Professor of Medicine in Residence, UCSF Department of Medicine
2008-present Chief, Diabetes Prevention and Control Program, California Dept of Public Health
2009-11 Interim Chief, UCSF/SFGH Division of General Internal Medicine
2011-present Chief, UCSF/SFGH Division of General Internal Medicine
2011-present Director, UCSF Center for Vulnerable Populations Health Communications Program

Honors
2000-01 Fellow, US Public Health Service Primary Care Policy Fellowship, Washington, DC
2001 Reviewer, Institute of Medicine Report on Insurance, Access, and Health
2003 Outstanding Researcher of the Year Award, Institute for Health Care Advancement
2003 Reviewer, AHRQ Evidence-Based Review of Literacy and Health
2004 Contributing Author, Institute of Medicine Report on Health Literacy
2004 Research/Service Award, National Association of Public Hospitals
2005 SFGH Representative, AMA Ethical Force Award, Innovations in Health Communication
2005 Outstanding Research Paper of the Year Award, Society Teachers of Family Medicine
2005-6 Participant, JCAHO Policy Roundtable on Literacy and Patient Safety
2006 Participant, Surgeon General Workshop on Improving Health Literacy
2008 Advancing Patient Safety Research Award in Health Literacy
2009 George Engel Career Research Award, Am. Assn Communication in Healthcare
2010 CDC/NIH National Diabetes Education Program Frank Vinicor Award
2010 Outstanding Mentor in Clinical Research, Bay Area Clinical Research Symposium
2011 Author, Commissioned IOM Report on Attributes of Health Literate healthcare Organizations
2012-14 Member, Strategic Planning Task Group, National Diabetes Education Program, NIDDK & CDC
2013 APHA Everett M Rogers Award

C. Selected Peer-reviewed Publications (Selected from 161 peer-reviewed publications)


143. Lyles CR, Schillinger D. Patient-Provider Communication and Diabetes Medication Adherence: What Do We Know and Where Do We Go from Here? Diabetes Management. 2013 3(3), 185–188.


D. Research Support

**Current**

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<th>Sponsor</th>
<th>Start Date – End Date</th>
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<td>Pfizer</td>
<td>7/1/11 – 6/30/13</td>
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<td>Schillinger</td>
<td>7/1/11 – 6/30/13</td>
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<td>Fellowship in Health Literacy</td>
<td>Johnston (PI)</td>
<td>9/30/06 – 6/30/16</td>
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NIH Clinical and Translational Science Institute

To forge a transformative, novel, and integrative academic home for Clinical and Translational Science to: 1) captivate, advance, and nurture a cadre of well-trained inter-disciplinary investigators and research teams; 2) create an incubator for innovative research tools and information technologies; and 3) synergize multidisciplinary and inter-disciplinary clinical and translational research and researchers to catalyze the application of new knowledge and techniques to clinical practice at the front lines of patient care. Dr. Schillinger is on the steering committee of the community engagement initiative of CTSI, and is charged with helping to stimulate practice-based implementation and effectiveness research.

**Fellowship in Health Literacy**

Schillinger

**Pfizer**

“Health Literacy and Chronic Disease Communication in an Era of Computers in the Room: Pitfalls and Promise”

This proposal seeks to understand how electronic health record systems (EHRs) use affects chronic disease health communication, explore differences in EHR use across health literacy levels, and develop a future leader with the skills to study and shape this process to meet communication needs of vulnerable populations.

**Family Fund**

Schillinger

“Bridging the Digital Divide in Diabetes Among the Underserved: From Populations to Patients”

To bring health IT innovations in population and patient-level DM management to the underserved, thereby enabling safety net practices and the vulnerable populations that they disproportionately care for to affirmatively respond to the challenges and opportunities presented by health reform.

**Family Fund**

Schillinger

“Brave New Voices: Empowering Minority Youth to Engineer a Diabetes Prevention Social Media Campaign”

To increase the health literacy and ‘health agency’ of minority youth around the diabetes epidemic, and will create multiple opportunities to bring minority youth and young adult voices and perspectives into the discourse about diabetes, enabling more effective interventions to improve health and to accelerate changes in diabetes-related policy and practice.

**Seventh Framework Programme (FP7)**

Van den Broucke (PI)

“Enhancing the (cost-)effectiveness of diabetes self-management education: A comparative assessment of different educational approaches and conditions for successful implementation” (DIABETES LITERACY)

The study aims to assess and compare the effectiveness and cost-effectiveness of different methods for diabetes self-management education (individual and group education, IT based education, and self-help), assess the implementation fidelity of current diabetes self-management education programs, consider the moderating role of health literacy in self-management education for diabetic patients and develop and test
literacy-appropriate diabetes education materials. It will also assess the conditions for effectiveness of self-management education programs in the way the health services are organized. Role: Co-Investigator.

P30 DK092924-01 Schmittdiel (PI) 9/1/11 – 8/31/16
NIH/NIDDK
The HMO Research Network – University of California San Francisco Center for Diabetes Translational Research (CDTR)
The purpose of the UCSF-HMO Research Network Center for Diabetes Training and Research (CDTR) is to create a robust network of investigators, clinicians, and health care operational leaders with expertise in diabetes translational research that will support ongoing research and foster new translational research; create Translational Research Cores in Health Disparities, Diabetes and Obesity Prevention, and Health IT that will provide content expertise to researchers and clinicians at the CDTR sites and their broader communities; mentor junior faculty interested in careers focused on T2DM prevention and care; support and fund preliminary research that will provide data for planning diabetes translational research by Early Stage Investigators; and serve as a resource for the state through a partnership between the CDTR and California Diabetes Program.

1B1CMS330882 Kohatsu (PI) 9/13/11 – 9/12/16
Centers for Medicare & Medicaid Services
"Medicaid Incentives for the Prevention of Chronic Diseases (MIPCD)"
To deliver financial incentives to Medicaid beneficiaries with one or more chronic diseases (e.g. diabetes) in California to promote smoking cessation through the use of the California Smoker’s Helpline services.

Susan G. Komen for the Cure Joseph (PI) 7/01/12 – 6/30/14
"Translating Cancer Genetics for the Safety Net Setting"
The overall goal of the study is to elucidate the strengths and limitations of current communication practices and to develop support strategies that foster effective genetic counseling with underserved, safety net (public or county hospital/clinic) patients. Role: Co-Investigator.

1P60MD006902 NIMHD Comprehensive Bibbins-Domingo (PI) 8/27/12 – 2/28/17
Centers of Excellence
"Addressing Disparities in Chronic Disease with a Teen and Young Adult Focus"
To create the Center for Health And Risk in Minority youth and adults (CHARM), a new comprehensive center of excellence that will focus on chronic conditions and chronic disease risk in Latinos, African Americans and Asians across the arc from adolescence to young adulthood (age 8 to 35 years) as targeted prevention at this age group has the potential to greatly impact minority health and health disparities. Role: Co-Investigator; Outreach Core Director.

R24HS022047 Sarkar (PI) 4/1/13 – 1/31/16
AHRQ
"California Safety Net Institute Innovation and Dissemination Network"
The overall goal of this proposal is to harness the potential of the current partnership between UCSF and SNI to forge a self-sustaining network that will lead dissemination and implementation efforts for evidence based practices across all the public hospitals’ integrated delivery systems in California.

R33 Wallhagen (PI) 3/31/13 – 2/29/16
NIH NIDCH
"Primary Care Intervention Promoting Hearing Health Care Service Access and Use"
The purpose of the R21 phase is to develop, pilot test, and further refine a screening and educational program for older adults with hearing loss that is designed to promote access to and effective use of hearing health services (HHC). The purpose of the R33 phase of the proposal is to utilize a randomized controlled trial to test the comparative effectiveness within a primary care setting of three protocols for older adults ≥ 60 years of age who are not currently wearing hearing aids and who screen positive as at risk for hearing loss on subsequent access to and effective use of hearing health services.
Role: Co-investigator.

R01AG045043  Sudore (PI)  9/13 – 5/31/18
NIH NIA
“Improving Advance Care Planning by Preparing Diverse Seniors for Decision Making”
This project will determine the efficacy of a novel, patient-centered, multi-media website called PREPARE. PREPARE is focused on preparing ethnically diverse, older adults to communicate their wishes with surrogate decision makers and clinicians and to make complex medical decisions over the course of serious and chronic illness. This project will result in a practical advance care planning guide that will be easy-to-use and disseminate and result in diverse, older adults who are prepared for complex medical decision making. Role: Co-investigator.

#1019627  Seligman (PI)  11/1/13 – 9/30/14
Public Health Institute
“Champion Physicians”
The goal of this project is to train, develop, and support a cadre of physicians to become leaders and spokespersons in their local communities and use their sphere of influence to promote policy, systems and environmental changes to prevent weight-related chronic diseases especially amongst low-income Californians.

CDR-1306-01500  Sudore (PI)  4/01/2014-03/31/2017
Patient-Centered Outcomes Research Institute
Preparing Spanish-speaking Older Adults for Advance Care Planning and Medical Decision Making
The project aims are: 1) to adapt and refine PREPARE in Spanish through cognitive interviews with Spanish-speaking Latinos and stakeholders, 2) to conduct an RCT to compare the efficacy of PREPARE plus a previously-tested, easy-to-read AD (intervention) versus the AD alone (control), and 3) to disseminate PREPARE with input from patients, surrogates and stakeholders. Role: Co-Investigator

Pending:
R01  Sarkar (PI)  9/1/2012 – 8/31/2017
NIDDK
“Health literacy and use of an internet-based patient portal in diabetes”
The long-term goal of this research is to: i) inform strategies to employ health information technology (HIT) effectively for patients with limited health literacy to reduce chronic disease disparities and ii) contribute to an expanded definition of health literacy that extends beyond verbal and written communication between the patient and health system by including ability to effectively use HIT-enabled health service access. Role: Co-investigator.

Recently Completed
California Healthcare Foundation  Wolf (PI)  5/21/2012 – 11/30/13
“Advancing the Universal Medication Schedule”
The overall objective of this study is to expand the current Universal Medication Schedule framework to promote understanding of non-pill form, short duration, as needed, and tapered dose medication instructions. Role: Site PI.

1R18HS019209-01  Yelin (PI)  9/1/10 – 8/31/13
AHRQ
“Medication Summary Guides for Vulnerable Populations with Rheumatoid Arthritis”
The purpose is to evaluate patient comprehension of existing medication guides for rheumatoid arthritis; adapt content of such guides to meet the linguistic and literacy capacities of diverse patients; and test the effectiveness of different communication methods to improve decision-making.
American College of Rheumatology  Yelin (PI)  7/01/07 – 6/30/09
“Disparities in Utilization and Outcomes in RA”
The project takes advantage of an accruing cohort of over 500 patients with rheumatoid arthritis (RA) across 3 health systems to explore racial and socioeconomic disparities and explanatory pathways across the spectrum of RA care. Role: Co-Investigator.

San Francisco General  Schillinger (PI)  4/01/07 – 3/31/10
Hospital Foundation (Hearst Family Award)
“Interactive Voice Response System to Transform Diabetes Care Among Vulnerable Populations”
This grant will support the implementation, evaluation and dissemination of proactive telephonic self-management support applications and related interventions for vulnerable populations with chronic disease.

Missouri Health Foundation  Wolf (PI)  11/01/07 – 10/30/10
ACP Foundation
“Evaluating the Missouri Health Literacy & Diabetes Communication Initiative”
To implement and evaluate the effects of a patient centered diabetes guide among diabetes patients in Missouri community health centers.

UB4HP19046  Aronson (PI)  7/1/10 – 6/30/11
Health Resources and Services Administration (HRSA)
Northern California Geriatric Education Center The mission of the Northern California Geriatric Education Center (NorCal GEC) is to improve education and training in geriatrics for interdisciplinary teams of health professionals and to advance the quality and availability of health care for older adults in Northern California, with special attention to those in underserved or culturally and linguistically marginalized communities.

R01 CA115861  McCormack (PI)  11/01/07 – 7/31/11
NCI/Research Triangle Institute
“Development of an Instrument to Measure Health Literacy”
To develop and validate a set of health literacy measures for chronic disease and cancer.

R18 HS017261  Schillinger (PI)  9/01/07 – 8/31/11
AHRQ
“Harnessing Health IT for Self-Management Support and Medication Activation in a Medicaid Health Plan”
This project will evaluate the effects of an automated telephone diabetes self-management support intervention on quality and safety among enrollees of a California Medicaid health plan.

R18 HS017784-01  Kahn (PI)  9/01/08 – 8/31/11
AHRQ
“Randomized Controlled Trial Embedded in an Electronic Health Record”
The aims of this project are to determine the efficacy of PHRs by comparing HIV/AIDS patients with access to the PHR and those without access. The outcomes of interest include laboratory markers, satisfaction and use of the system and trust measures.

20091181  Wolf (PI)  8/1/2009 – 12/31/2011
NWU/CA Endowment
“Development of Multilingual Prescription Drug Instructions for Pharmacy Practice”
The proposed study seeks to address the problem of poorly communicated Rx instructions by targeting the most tangible and frequently-used informational source: Rx label instructions. The labels will be refined and translated into the 5 most commonly spoken languages in California; Spanish, Chinese, Vietnamese, Korean and Russian. These instructions will then be pilot tested among 200 limited English proficiency patients speaking each of the indicated languages.

R01 HL081257  Pignone (PI)  9/1/06 – 5/31/12
NIH/National Heart, Lung, and Blood Institute
“Health Literacy & Self-Management in Heart Failure”
Multi-site randomized trial of a heart failure disease management program for low literacy adults. Goal is to determine if disease management focused on teaching self-care behaviors is effective and whether its efficacy is greater for patients with low literacy skills. Role: Site PI.

R03HS020684-01  Handley (PI)  7/1/11 – 6/30/12
NIH
“Evaluating Implementation of a Health IT Intervention for Vulnerable Patients with Diabetes”
The purpose of this study is to examine the fidelity of the intervention’s implementation and examine adaptations made to increase adoption. This information can inform efforts underway in national health reform, to scale up health IT interventions to off-set growing chronic disease care costs. Role: Co-Investigator.

McKesson Foundation  Schillinger (PI)  7/1/10 – 6/30/12
“Patient response to medication intensification counseling in a diabetes telemedicine intervention”
To harness pharmacy claims data to determine the extent to which a Medicaid managed care diabetes population could benefit from adherence counseling or medication intensification for cardiovascular risk reduction; assess reported willingness of participants to intensify diabetes therapies and explore factors associated with this preference; and measure the relationship between SMARTSteps participants’ willingness to intensify cardiovascular risk reduction therapies and primary care providers’ decisions to intensify medication regimens.

California Health Care Safety Net Institute  Sarkar (PI)  11/1/11 – 10/31/12
(SNI) “Building an Innovations Exchange for California’s Safety-Net Health System”
The project scope is to 1) conduct a needs assessment and landscape assessment, focusing on ambulatory health care delivery, health information technology, patient-centered medical home transformation, and transitions in care; and 2) investigate successful innovation centers and bring their strategies and approaches to SNI with recommendations for convening a successful innovations exchange. Role: Co-Principal Investigator.

AT&T Foundation  Schillinger  9/1/11 – 8/31/12
“CVP-Youth Speaks Health Diabetes Prevention Campaign”
To support San Francisco General Hospital and Trauma Center’s Center for Vulnerable Populations in collaborating with a community program called Youth Speaks to develop a minority youth-targeted diabetes prevention campaign using youth-generated “spoken word” messages around key diabetes prevention. Role: Principal Investigator.

R34 DK 093992-01  Powe (PI)  9/30/11 – 8/31/12
“Health IT Enhanced for CKD in Safety-Net Primary Care”
We propose to evaluate an incrementally intensive set of interventions (a registry, information technology and automated telephonic patient management) to enhance awareness, improve knowledge, and foster better communication, possibly leading to better clinical outcomes for patients with chronic kidney disease cared for in a safety net clinics. Role: Co-Investigator.

08-85655  Schillinger (PI)  3/29/09 – 6/30/13
CDC/CA Dept of Public Health “California Diabetes Prevention and Control Program”
The goal is to work to prevent, detect, and intervene among persons at risk for diabetes mellitus and its complications to reduce the adverse personal and public impact of diabetes on California’s diverse communities.
BIOGRAPHICAL SKETCH
Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Schwarcz, Sandra K.

POSITION TITLE
Director, Special Studies, AIDS Office, San Francisco Department of Public Health
Adjunct Assistant Professor. Epidemiology and Biostatistics, University of California, San Francisco

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
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<tr>
<td>University of California, Santa Cruz,</td>
<td>BA</td>
<td>06/79</td>
<td>Biology</td>
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<tr>
<td>Michigan State University, E. Lansing</td>
<td>MD</td>
<td>06/84</td>
<td>Medicine</td>
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<tr>
<td>University of California, Berkeley</td>
<td>MPH</td>
<td>05/86</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>Intern, Pediatrics, Kaiser Foundation Hospital, San Francisco</td>
<td></td>
<td>07/86</td>
<td>Pediatrics</td>
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<tr>
<td>Resident, Preventive Medicine, California Department of Health Services, Berkeley, CA</td>
<td></td>
<td>06/87</td>
<td>General preventive medicine and public health</td>
</tr>
<tr>
<td>Epidemic Intelligence Service Officer, Centers for Disease Control, Division of Sexually Transmitted Diseases, Atlanta, GA</td>
<td></td>
<td>06/89</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>Resident, Children’s Hospital Oakland, Oakland, CA</td>
<td></td>
<td>06/90</td>
<td>Pediatrics</td>
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A. Personal Statement

The goals of the proposed study are twofold: to 1) assess how the level of immunosuppression at the time of ART initiation, cancer treatments, and HIV viral suppression affect the risk of a second primary cancer among people with HIV/AIDS, and 2) determine the impact of HIV infection, type of first primary cancer, and cancer treatment on the time to a second primary cancer among survivors of first primary cancers. This study is a significant extension on earlier work that computer-matched the San Francisco AIDS case and the California cancer registries to measure the effect of highly active ART on the risk of developing AIDS-defining and non-AIDS–defining cancers from 1990 through 2000. This proposed study will expand our analysis another 10 years, through 2010, and incorporate new data elements (ART regimen and HIV viral load) and statistical methodologies. The San Francisco AIDS case registry is unique because it contains prospectively collected information on use of ART, CD4+ cell counts, and HIV viral load and because of the high rates of Kaposi sarcoma among San Francisco AIDS cases. In addition to our previous study of ART and cancers, Professor Hessol and I have been colleagues for well over 20 years and collaborated on a study in which we computer-matched data from a cohort study of HIV-infected women with the SF AIDS case registry to measure the validity of self-reported occurrence of AIDS-indicator conditions. Our productive work together on prior studies and our long-standing professional relationship provide evidence that this too will be a successful research collaboration. In addition to offering my general knowledge of this topic area, I will provide clinical expertise on the information from the HIV/AIDS surveillance database regarding the use and interpretation of CD4+ and HIV RNA test results and HIV treatment.

B. Positions and Honors

Positions and Employment
09/81–03/84 Graduate Assistant, Michigan State University Department of Psychiatry and the Medical Humanities Program, E. Lansing
07/85–06/86 Physician, Solano County Department of Public Health, CA
08/86–06/87 Physician, San Francisco Department of Public Health
04/88–06/89 Adjunct Instructor, Emory University, Department of Community Medicine, Atlanta, GA
07/89–12/89 Medical Epidemiologist, Centers for Disease Control, New York City Department of Health, Bureau of Sexually Transmitted Disease Control
12/90–06/91 Research Physician, Children’s Hospital, Oakland, CA
12/90–02/93 Medical Epidemiologist, Division of Sexually Transmitted Disease Control, San Francisco Department of Public Health
02/93–04/96 Medical Epidemiologist, AIDS Office, San Francisco Department of Public Health
04/96–10/06 Director, HIV/AIDS Statistics and Epidemiology Section, San Francisco Department of Public Health
07/99–present Adjunct Assistant Professor, University of California, San Francisco, Department of Epidemiology and Biostatistics
10/05–present Director, Special Studies HIV/AIDS Statistics and Epidemiology Section, San Francisco Department of Public Health

Honors
University of California Highest Honors in Biology
Stevenson College Honors
Public Health Trainee tuition award

Federal public advisory committees
2007 External peer review of CDC Division of HIV/AIDS Prevention Surveillance, Research, and HIV Programs, surveillance panel.

C. Selected peer-reviewed publications (Selected from 68 peer-reviewed publications)


D. Research Support

**Ongoing Research Support**

U2GPS001814 Rutherford (PI) 01/01/2009-09/31/2014
University of California, San Francisco (Sub award)
Centers for Disease Control and Prevention (Sub award)
UCSF's University Technical Assistance Program which supports CDC's Global AIDS Program in surveillance and monitoring & evaluation activities.
Role: Co-Investigator

PS13-1302 (Hsu, PI) 01/01/201312/31/2017
CDC
HIV/AIDS Core Surveillance and Incidence
Component A (Case surveillance) and Component B (incidence)
The main goals of the HIV/AIDS Core Surveillance and Incidence program are to use our successful methods of HIV/AIDS case reporting to maintain a highly complete and accurate HIV/AIDS case registry. This information is widely disseminated to the community and is used to inform prevention efforts.
Role: Co-Investigator

**Completed Research Support**

R01-MH73425 Dilley (PI) 09/01/2005-08/31/2010
NIMH
Reducing HIV transmission risk behavior: a trial of a two-session risk-reduction intervention with HIV-positive men who have sex with men
The goal of this study is to test the efficacy of personalized cognitive counseling in reducing episodes of unprotected anal intercourse among HIV-infected men who have sex with men
Role: Co-Investigator

1U62PS001000 Hsu (PI) 01/01/2008–12/31/2012
CDC
HIV/AIDS Core Surveillance and Incidence

The main goals of the HIV/AIDS Core Surveillance and Incidence program are to use our successful methods of HIV/AIDS case reporting to maintain a highly complete and accurate HIV/AIDS case registry. In addition, we have integrated core surveillance activities with HIV incidence goals to collect a complete testing history and thorough treatment information from newly diagnosed HIV cases. Those data also allow us to collect a specimen for STARHS testing to develop an incidence estimate for San Francisco and identify the populations
at greatest risk for new infections. This information is widely disseminated to the community and is used to inform prevention efforts.
Role: Co-Investigator
Jaime Sepulveda, M.D., M.P.H., M.Sc., Dr.Sc.
Executive Director, Global Health Sciences
University of California, San Francisco (UCSF)

Dr. Jaime Sepulveda is the Executive Director of UCSF Global Health Sciences, and Professor of Epidemiology, at the University of California, San Francisco. A member of the Chancellor’s Executive Cabinet, he leads a team of over 260 faculty and staff engaged in translating UCSF’s scientific leadership into programs that positively impact health and reduce inequities globally. Sepulveda oversees several education and training programs, including the Masters of Science in Global Health Sciences degree program, the first such program in the nation.

Sepulveda’s areas of research expertise include HIV/AIDS, vaccines, health surveillance and metrics, neglected infectious diseases, maternal & neonatal health, health policy, and global health initiatives.

Sepulveda is the Principal Investigator for the FIRST (Fighting Infections through Research, Science & Technology) program, which tackles neglected infectious diseases in Mesoamerica. He is the co-director of the new UCSF Preterm Birth initiative, and has recently served as a guest editor for global health supplements in *Health Affairs* and *Science*.

From 2007 to 2011, Dr. Sepulveda was a member of the Foundation Leadership Team at the Bill & Melinda Gates Foundation. He served at the BMGF in various roles: as Director of Integrated Health Solutions, Director of Special Initiatives and Senior Fellow in the Global Health Program. He also played a central role in shaping the foundation’s overall global health strategy as part of its executive team. Dr. Sepulveda worked closely with key foundation partners—including the GAVI Alliance, where he chaired the Executive Committee—to increase access to vaccines and other effective health solutions in developing countries. As Vice-Chair of the GAVI Board, he contributed to improve the governance and management of the organization.

Sepulveda worked for more than 20 years in a variety of senior health posts in the Mexican government. After graduating from Harvard University where he obtained his Doctorate, he became Mexico’s Director-General of Epidemiology. At age 36, he was appointed Vice-Minister of Health. From 2003 to 2006, he served as Director of the National Institutes of Health of Mexico. He was for almost a decade Director-General of Mexico’s National Institute of Public Health and Dean of the National School of Public Health.
In addition to his research credentials, Sepulveda is an experienced implementer of effective health programs. Sepulveda designed Mexico’s Universal Vaccination Program, which eliminated polio, measles, and diphtheria by achieving universal childhood immunization coverage. He also modernized the national health surveillance system, created the National Health Surveys System and founded Mexico’s National AIDS Council.

Sepulveda holds a medical degree from National Autonomous University of Mexico and two Masters and a Doctorate degree from Harvard University. In 1997, he was awarded the Harvard’s Alumni Award of Merit. Dr. Sepulveda was elected to and served in the Harvard Board of Overseers (2002-2008). He is a member of the Institute of Medicine of the U.S. National Academy of Sciences.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME: James Seward, M.D.

POSITION TITLE: Clinical Professor of Medicine

eRA COMMONS USER NAME: Chair, Residency Advisory Committee

EDUCATION/TRAINING: (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
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<tr>
<td>University of California, San Francisco</td>
<td></td>
<td>1981-1982</td>
<td>Occupational Medicine Fellow</td>
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<td>University of California, San Francisco</td>
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<td>1980-1982</td>
<td>Robert Wood Johnson Clinical Scholar</td>
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<tr>
<td>University of California, San Francisco</td>
<td></td>
<td>1977-1980</td>
<td>Internal Medicine Resident</td>
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<td>University of California, San Francisco</td>
<td>M.D.</td>
<td>1977</td>
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<td>University of California, Berkeley</td>
<td>M.P.P.</td>
<td>1977</td>
<td>Public Policy</td>
</tr>
<tr>
<td>Tulane University</td>
<td>M.M.M</td>
<td>2003</td>
<td>Medical Management</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Positions and Employment:

- 1980-1999: Attending Physician, San Francisco General Hospital Emergency Room (part time)
- 1982-1994: Director, Occupational Health Program, University of California at Berkeley
- 1991-1996: Director, Preventive Medicine Residency Program, School of Public Health, University of California, Berkeley
- 1994-Present: Director, Health Services Department, Lawrence Livermore National Laboratory, Livermore, California
- 1995-Present: Co-Director of Preventive Medicine Residency Program, School of Public Health, University of California at Berkeley, Berkeley, California

Certifications:

- 1978: Licensed Physician, State of California (G-038062)
- 1980: Diplomate, American Board of Internal Medicine
- 1982: Diplomate, American Board of Preventive (Occupational) Medicine
- 1996: Diplomate, American Board of Medical Management
- Current: BNDD Certificate

Academic Appointments:

- Clinical Professor of Medicine, UCSF
- Clinical Professor of Public Health, UC Berkeley

Other Experience and Professional Memberships:

- Medical Director, Lawrence Livermore National Laboratory
- Chair, Occupational Medicine Residency Advisory Committee, UCSF
- Board Member, American College of Occupational and Environmental Medicine
- Past President and Chairman, Western Occupational and Environmental Medical Association
- Past Occupational Medicine Regent, American College of Preventive Medicine
Past President, California Academy of Preventive Medicine
Editorial Board Member, University of California at Berkeley Wellness Letter

B. Selected peer-reviewed publications


Seward J: Medical Surveillance of Allergy in Laboratory Animal Handlers. ILAR Journal, National Academy of Science 42(1) 47-54. 2001

Publications (Cont.)


Invited Presentations

Human Health Implications from Radiation after the Fukushima Reactor Disaster: University of Tokyo and Woods Hole Oceanographic Institute Symposium. Tokyo, Japan. Nov 12, 2012

Radiation and Human Health: Recent International and Domestic Issues. UCSF Occupational And Environmental Update. San Francisco, Nov 3, 2012

Lessons for Japan from the Chernobyl Cancer Experience. UCSF Symposium on the Great East Japan Earthquake and Disasters. March 2012 San Francisco


Allergy in Animal Handlers; UCSF Advances in Occupational Medicine, March 2010


Internal Radiation Contamination: University of California, Davis Occupational and Environmental Updates Conference, June 2005

Management of Internal Radiation Contamination Injuries; Western Occupational Health Conference, Lake Las Vegas, September 2004

Occupational Health for Animal Care Workers, Advances in Occupational Medicine, University of California San Francisco, April 2003

Occupational Health Problems of Animal Handlers; Continuing Education in Occupational Medicine; University of California, San Francisco; February 2000

Risk Assessment and Occupational Allergy to Animals; California Biomedical Research Association; Stanford University; June 1999.

Organizational Theory for Occupational Medicine Physicians; Continuing Education Programs in Occupational Medicine; University of California, San Francisco; April 1999.
Medical Surveillance and Worker Health; Occupational Health Forum, Lawrence Livermore Laboratory, 1995.

Stress as an Occupational Risk; Western Occupational Health Conference, Monterrey, 1991

Occupational Stress; Occupational Medicine Grand Rounds, University of California, San Francisco (SFGH); 1990.


Medical Screening for Biomedical Personnel; National Institutes of Health Eighth Annual Research Safety Symposium; January 1985.


Allergy in Animal Handlers; University of California Occupational Medicine Grand Rounds; San Francisco; September 1983.

Occupational Injuries and Job Autonomy; R. W. Johnson Foundation Clinical Scholars Meeting; November 1982.

C. Research Support

**Ongoing Research Support:**
None

**Completed Research Support:**
None
**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

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<tbody>
<tr>
<td>Caroline Helene Shiboski</td>
<td>Professor</td>
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</table>

**eRA COMMONS USER NAME** (credential, e.g., agency login)

shiboski

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

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<td>Lycee Rabelais, Versailles Academy, France</td>
<td>Baccalaureat</td>
<td>1978</td>
<td>Biology, Math, Physics</td>
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<tr>
<td>Universite R. Descartes, Paris V, France</td>
<td>D.D.S</td>
<td>1984</td>
<td>General Dentistry</td>
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<td>University of California San Francisco</td>
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<td>Dental Clinical Epidemiology</td>
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<td>University of California, Berkeley</td>
<td>Ph.D</td>
<td>1997</td>
<td>Epidemiology</td>
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<td>University of California San Francisco</td>
<td>Certificate</td>
<td>1998</td>
<td>Oral Medicine</td>
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<tr>
<td>University of California San Francisco, CORO</td>
<td>Diploma</td>
<td>2006</td>
<td>Leadership training</td>
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<tr>
<td>Drexel University, Executive Leadership in</td>
<td>Diploma</td>
<td>2013</td>
<td>Leadership training</td>
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<tr>
<td>Academic Medicine (ELAM)</td>
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</table>

**A. PERSONAL STATEMENT**

As an Oral Medicine specialist and Epidemiologist my research experience focuses on the epidemiology of oral cancer (through the use of registry data), and on the oral complications of various forms of immune dysfunction (both immunosuppressive conditions, and autoimmunity). On the latter topic I have extensive experience designing and implementing clinical studies in the US and internationally. I implemented a collaborative study, funded through the AIDS Fogarty Program, exploring oral candidiasis as a surrogate marker of HIV disease progression among women in Zimbabwe. As the principal investigator (PI) of the Oral HIV/AIDS Research Alliance Epidemiology/Clinical Sciences Unit (a multicenter grant that is part of the AIDS Clinical Trial Group Network or ACTG), I have led the development and implementation of number of study protocols pertaining to the oral complications of HIV, notably HPV-related oral infection, in the US, Haiti, Africa, and India. I am also the lead Epidemiologist and the PI (with co-PI Lindsey Criswell) of the Sjögren’s Syndrome International Collaborative Clinical Alliance (SICCA) biorepository, a project aimed at disseminating data and biospecimens to investigators worldwide for pathogenesis, epidemiologic, and genetic studies pertaining to this disease. As lead epidemiologist I played a critical role in the design of the SICCA registry (a 10-year NIH contract that preceded the current contract funding the SICCA biorepository, and for which I served as PI for the last 3 years of the contract), development of data collection instruments, and development of classification criteria for Sjögren’s Syndrome that led to these criteria, which were approved by the American College of Rheumatology in November 2011.

My experience in the field of global health also pertains to teaching: 1) I developed and taught the Oral Medicine curriculum of the Department of Dentistry at the University of Zimbabwe College of Health Sciences from 1999 to 2005; and 2) for the past 7 years, I have been part of a team teaching an annual 2-week research methods course for Francophone African physicians in the Epidemiology and Public Health Unit at the Pasteur Institute in Paris. My experience in global health research and teaching is very relevant to, and makes me qualified to serve on the campus-wide working group to help determine the focus and direction of the PhD program in Global Health.

**B. POSITIONS**

1984-1985 Research Assistant, New Product Development, IMS America Ltd. Ambler, PA
1985-1986 Clinical Instructor, Louis Mourier Hospital Dental Clinic, Colombes, France
1986-1986 General Dentist, St. Anne Hospital Oral Surgery Clinic and private dental practice, Paris, France
1986 Research Assistant, Oral Health Research Center, Fairleigh Dickinson Univer., Hackensack, NJ
1987 Dental Technician, Unique Dental Studio, Inc., Oakland, CA
1988-1989 Dental Health Instructor and Consultant, Alameda County Dental Health Bureau, Oakland, CA
1989-1994 Postgraduate Dentist University of California San Francisco (UCSF), CA
1994-2003 Assistant Clinical Professor, Dept of Stomatology, UCSF, CA
2001-present Director, Oral Medicine Clinical Center, UCSF, CA
2003-2004 Associate Clinical Professor, Dept Orofacial Sciences, UCSF, CA
2004-2009 Associate Professor, Dept Orofacial Sciences, UCSF, CA
2008-present Director, Oral Medicine Post-Graduate Residency Program, Dept Orofacial Sciences, UCSF, CA
2009-present Professor, Dept Orofacial Sciences, UCSF, CA
2010-2011 Interim Co-Director, PhD Program in Oral and Cranio-Facial Science, School of Dentistry, UCSF, CA

HONORS & AWARDS
1984 Received High Honor for doctoral thesis titled "La prevention bucco-dentaire au Danemark"
1987 "Michele Bardet-Viatte Award " for best publication on Dental Health Promotion in Departement des Yvelines, France
1994 Dentist Scientist Award, Department of Stomatology, University of California, San Francisco, CA
2001 K23 award, Department of Stomatology, University of California San Francisco, CA
2001 Diplomate of the American Board of Oral Medicine
2001 Dean's Creativity fund Award, UCSF
2003 Academic Senate New Investigator Award, UCSF
2004 Teacher of the Year Award, Department of Stomatology, UCSF
2011 Excellence in Research Award, John Greene Society, UCSF
2012 Faculty Award for Global Oral Health, UCSF
2012-2013 Fellow of the Executive Leadership in Academic Medicine (ELAM) program for 2012-2013, Drexel University

C. SELECTED PUBLICATIONS (limited to 15)


D. Research Support.

Ongoing Research Support

HHSN26S201300057C (PI: CH Shiboski; co-PI: L Criswell) 09/30/13-09/29/18

NIH/NIDCR

International Research Registry Network for Sjogren’s Syndrome (SICCA)

The major goal of this contract is to disseminate data and biospecimens collected as part of the International Research Registry Network for Sjögren's Syndrome to the scientific community to conduct epidemiologic and genetic studies on Sögren's Syndrome.

Role: PI

U01 Al 68636 (PI Kuritzkes, CA), 06/29/06-12/31/14

NIH/NIAID/NIDCR

Leadership for HIV/AIDS Clinical Trials Network

Social and Scientific systems

Title of site-specific project: Oral HIV/AIDS Research Alliance

The goal of the Oral HIV/AIDS Research Alliance (OHARA), that comprises 3 centers (UCSF/Clinical Science Unit, UNC/Virology Unit, and Case Western/Medical Mycology Unit), is to develop and implement an oral HIV/AIDS research agenda within the ACTG infrastructure. OHARA will provide the capacity to investigate the oral complications associated with HIV/AIDS and to address such overarching questions as the effects of potent antiretrovirals on the development of opportunistic infections (OIs) and the natural history of oral OIs, variation and resistance in the context of immune suppression. correlates.

Role on project: PI of the UCSF site (Epidemiology Unit) and Chair of the Alliance

U01 HD052102 (Seage) 9/10/11 - 7/31/14

Pediatric HIV/AIDS Cohort Studies (Harvard University subcontract)

NIH/NICHD/NIDCR

Oral health among participants in the PHACS Adolescent Master Protocol (AMP)

This study will examine and compare the oral health and microbiome of perinatally HIV infected and HIV-exposed uninfected children and adolescents of PHACS. Drs. Moscicki and Shiboski are co-PIs of this subcontract. Role: Co-PI
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Steward, Wayne Thomas

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
wsteward

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
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<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
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<th>FIELD OF STUDY</th>
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<td>Columbia University, New York, NY</td>
<td>BA</td>
<td>1997</td>
<td>Psychology</td>
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<td>Yale University, New Haven, CT</td>
<td>PhD</td>
<td>2002</td>
<td>Psychology (social)</td>
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<td>University of California, Berkeley, CA</td>
<td>MPH</td>
<td>2003</td>
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<td>2002-2007</td>
<td>HIV prevention research</td>
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A. Personal Statement

UCSF Global Health Sciences (GHS) provides graduate level training in biomedical, public health, and social sciences that relates to monitoring, improving, and evaluating health and health systems in underprivileged portions of the world. I am responsible for co-teaching a fall term course on qualitative and quantitative research methodologies, including ethnographic observation, key informant interviewing, and survey development and administration. I also serve as academic advisor to students in the GHS masters’ degree program, and mentor students who seek research experience through projects related to my expertise. My current research portfolio includes both international and domestic projects of relevance to global health. Projects in China and India focus on assessing stigma and its impact on HIV-infected and affected populations. A project in South Africa is examining the effectiveness of two intervention models for improving engagement in HIV care and services. And my research in US domestic settings focuses on the development of more integrated and coordinated models of care, including patient-centered medical homes, to improve services for HIV-infected patients from vulnerable populations.

B. Positions and Honors.

Positions and Employment

2001 Lecturer, Southern Connecticut State University
2002-2007 Postdoctoral Scholar, Department of Medicine, University of California San Francisco (UCSF)
2007 Research Specialist, Department of Medicine, UCSF
2007-2013 Assistant Professor, Department of Medicine, UCSF
2009- Faculty Member, Global Health Sciences MS Degree Program, UCSF
2013- Associate Professor, Department of Medicine, UCSF

Honors
Columbia University Graduation Honors: magna cum laude
Yale University Fellowship
Yale University Dissertation Fellowship
NIMH Postdoctoral Trainee, UCSF Center for AIDS Prevention Studies
C. **Selected peer-reviewed publications** (Selected from a total of 40 peer reviewed publications)

**Most Relevant to the Current Application (in chronological order)**


**Additional recent publications of importance to the field (in chronological order)**

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
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<th>NAME</th>
<th>POSITION TITLE</th>
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<tr>
<td>Christopher C Stewart, MD</td>
<td>Clinical Professor of Pediatrics</td>
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**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

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<tr>
<td>Yale University</td>
<td>BA</td>
<td>1985</td>
<td>Asian Studies</td>
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<tr>
<td>New Haven, Connecticut</td>
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<tr>
<td>Keio University</td>
<td>MA</td>
<td>1988</td>
<td>Asian History</td>
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<td>Tokyo, Japan</td>
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<td>Harvard University</td>
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<td>1996</td>
<td>Doctor of Medicine</td>
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<td>Boston, Massachusetts</td>
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<td>University of California, San Francisco, California</td>
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<td>1999</td>
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A. **Personal Statement**

I have had experience directing a number of global health training programs. Many of my global health education programs focus on interdisciplinary work and the development of teamwork and leadership skills. I directed and was principle investigator for the UCSF/UCB Fogarty/NIH Frameworks program (1R25TW007512 - 01A2), which accepted multidisciplinary teams of students from all the various UCSF schools and the UCB SPH early in their training to develop and work on projects abroad. This program trained the teams of students from different specialties over six months in teamwork and global health issues, and then sent them to various sites to work on a various research, clinical, or service projects or problems proposed by the sites. I am co-PI for Doris Duke Charitable Foundation (DDCF) International Clinical Research Fellowship (ICRF), which supports medical students in year-long global health research experiences. I am also the director of the Pathways to Discovery in Global Health program at UCSF, which incorporates global health education for those in medical school through graduate school or residency, and beyond. The graduate program for this pathway focuses on multidisciplinary education and projects for residents from more than 11 specialties in the school of medicine, as well as the schools of dentistry and pharmacy, and graduate nurses.

Within the various interdisciplinary global health programs I run, I lead sessions on global health leadership and teamwork, as well as ethical concerns involved in clinical work and research. I also teach leadership skills in a low-resource context, including project management, media use for articulating vision to others, negotiating, and cultural humility in communication. I also train mentors who supervise our residents and students on how to be better mentors. I was awarded Velji Award for Teaching Excellence in Global Health (Global Health Education Consortium) for my global health educational work as well as other awards for teaching. I was awarded the UCSF Chancellor’s Award for public service in 2004, and Jane Addams Award for Social Justice in 2010.

I mentor numerous pediatric residents for their international health research and project work, as well as numerous medical students. Pediatric residents I have mentored in the past few years are doing research in pediatric HIV, tuberculosis, malaria and other parasitic diseases, and malnutrition, and in leadership positions at USAID, CDC, and a number of academic institutions. I also have a specialty in child maltreatment. I have given numerous lectures abroad, and have administered training programs in child and neonatal health in international settings, including Asia, Central America, and Africa.
B. Positions and Honors.

**Positions and Employment**

1996-97  Intern, Department of Pediatrics, University of California, San Francisco, San Francisco, CA  
1997-99  Resident Physician, Department of Pediatrics, University of California, San Francisco, San Francisco, CA  
1999-2000  Chief Resident, Department of Pediatrics, San Francisco General Hospital, San Francisco, CA  
2001-2003  Clinical Instructor of Pediatrics, University of California, San Francisco  
2001-2003  Interim Medical Director, San Francisco General Hospital, Inpatient Pediatric Service  
2003-present  Assistant Clinical Professor of Pediatrics, University of California, San Francisco  
2003-present  Medical Director, San Francisco General Hospital, Inpatient Pediatric Service  
2003-present  Medical Director, Suspected Child Abuse and Neglect Team, City of San Francisco  
2001-2003  Director, Global Health Clinical Scholars Program, Global Health Sciences  
2006-present  Directing, Pathways to Discovery in Global Health  
2006-present  Director, Shaken Baby Prevention Project  
2008-2011  Director, Frameworks Program  
2008-present  Director, Pathways to Discovery in Global Health

**Other Experience**

**CAMPUS-WIDE**

2001-present  Resident/Student Preceptor, Urgent Care Clinic, San Francisco General Hospital  
2001-present  Resident/Student Preceptor, Inpatient Pediatric Ward, San Francisco General Hospital  
2001-present  Clinical Preceptor, Pediatric Preceptorship (6-8 students/year for longitudinal elective)  
2001-2004  Longitudinal Clinical Experience for medical students  
2003-2004  Admissions Committee School of Medicine  
2004-2005  Mission Bay Medical Rebuild Committee, Inpatient Pediatrics Subcommittee  
2005  Precepting mini-Clinical Performance Exam for medical students  
2005-2007  Chancellor’s nomination committee for Public Service Awards  
2006-present  Steering Committee of UCSF Global Health Sciences  
2006-present  Director, Global Health Clinical Scholars Program, Global Health Sciences  
2007-2008  Co-convener, Dean’s Pathways Program, Global Health Pathway  
2008-present  Director, Pathways to Discovery in Global Health  
2008-present  Director, UCSF-UCB Frameworks Program  
2008-present  Campus Fulbright Program Adviser  
2012-present  Co-PI, Doris Duke International Research Training Grant

**Professional Membership**

1996-present  American Academy of Pediatrics  
2003-present  Section on International Health, AAP  
2003-present  Section on Child Maltreatment, AAP  
2005-present  Fellow, American Academy of Pediatrics  
2007-present  Member, Ray Helfer Professional Society

**Honors**

1985  Graduated Magna cum Laude, Yale College, New Haven, CT  
1998  French Foundation Award for Medical Research and Education  
2004  Chancellor’s Award for Public Service- Honored for work done in Vietnam  
2006  Academy of Medical Educators Award for Excellence in Direct Teaching and Curricular Design  
2009  Alpha Omega Alpha Society election by graduating medical school class  
2009  The Velji Award for Teaching Excellence in Global Health (Global Health Education Consortium)  
2010  Jane Addams Award for Social Justice
C. Selected peer-reviewed publications (in chronological order).

PEER REVIEWED PUBLICATIONS


2. Stewart, CC. Multiple Teaching Strategies, Varied Activities: Key Components of a Child Abuse Curriculum, Western Group on Educational Affairs. 2006


C. Research Support.
2008-2011 Fogarty International Frameworks Grant (NIH) (1R25TW007512 - 01A2), PI
2009-2011 Supplemental Grant to Frameworks Grant (NIH), PI
2012-2017 Co-PI, Doris Duke International Research Training Grant
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Thompson, Lisa Marie

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
LISATHOM

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

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<tr>
<td>Tulane University</td>
<td>BA, Cum Laude</td>
<td>06/84</td>
<td>Latin American Studies</td>
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<td>San Francisco State University</td>
<td>BS/MS</td>
<td>06/91</td>
<td>Nursing</td>
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<tr>
<td>San Francisco State University</td>
<td>FNP</td>
<td>06/96</td>
<td>Family Nurse Practitioner</td>
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<tr>
<td>University of California, Berkeley</td>
<td>MS</td>
<td>06/04</td>
<td>Environmental Health Sciences</td>
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<tr>
<td>University of California, Berkeley</td>
<td>PhD</td>
<td>06/08</td>
<td>Environmental Health Sciences</td>
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A. Positions and Honors

Positions and Employment

1990-1993 RN and Program Director, Clinical Health Education, La Clinica de la Raza, Oakland
1993-1995 RN and Section Supervisor, Pediatrics, La Clinica de la Raza, Oakland
1995-1996 Clinical Nurse II, Triage, Alameda County Ambulatory Care Services
1996-2008 Family Nurse Practitioner, Family Medicine & Women's Clinics, La Clinica de la Raza, Oakland
1999-2000 Asthma Care Coordinator, Family Medicine, La Clinica de la Raza, Oakland
2000-2000 Clinical Researcher I, Genetics of Asthma in Latinos (GALA) study, University of California, San Francisco
2002-2008 Graduate Student Researcher, Environmental Health Sciences; RESPIRE/CRECER studies, University of California, Berkeley
2004-2006 Teaching Assistant, Environmental Science Policy and Management; School of Public Health, University of California, Berkeley
2008-present Assistant Professor, Family Health Care Nursing, University of California, San Francisco
2008-present Faculty member, Center for Occupational and Environmental Health
2009-present Faculty scholar, Global Health Sciences, UCSF
2011-present Faculty K scholar, Clinical Translational Science Institute, UCSF

Other Experience and Professional Memberships

1988-present Sigma Theta Tau International, Nursing Honor Society
1993-present American Public Health Association
1996-2000 California Coalition of Nurse Practitioners
2008-present National Organization of Nurse Practitioner Faculties (NONPF)
2009-2013 Grant Reviewer, Sigma Theta Tau Research Award, Alpha Eta Chapter
2010-2010 International Research Proposals Reviewer, Health Effects Institute, Boston MA
2010-present Western Institute of Nursing
2010-present International Society of Environmental Epidemiology

Honors

2002 Center for Occupational and Environmental Health Program Student Research Award, University of
B. Selected Peer-Reviewed Publications


C. Research Support

On-going Research Support

8 KL2 TR000143-08 (Johnston) 09/30/2006-06/30/2016
NCATS
vClinical and Translational Science Institute (CTSI)
The goal of the CTSI KL2 career development award is to increase the number and quality of clinical and translational investigators skilled at leading multidisciplinary research teams. My role is as a KL2 Scholar, for which I receive salary support for 9 calendar months, plus research funds.
Role: Faculty Scholar

S-6 0515-01-10 06/01/2014 - 12/01/2014
Grand Challenges Canada, Stars in Global Health, Phase I
GenteGas: Delivering affordable gas stoves and household health education to low-income families exposed to toxic levels of woodsmoke
Role: co-PI

Completed Research Support

R01 ES10178-04 Smith (PI) 06/01/2001-05/31/2005
NIH/ NIEHSv
RESPIRE- Indoor Air Pollution and Child ARI: A Randomized Trail (Guatemala) Smith (PI)
Role: Graduate Student Researcher

R01 ES10178-04 Smith (PI) 09/15/2006-08/31/2010
NIH/NIEHSv
CRECER- Chronic Respiratory Effects of Early Life PM Exposure Smith (PI)
Role: Graduate Student Researcher

UCSF School of Nursing Intramural Award Thompson (PI) 02/27/2009-02/28/2010
Feasibility study: Building capacity among traditional birth attendants and field workers to assess newborn gestational age and anthropometry in Guatemala
Role: PI

UCSF Faculty Development Award ACCESS 07/01/2009-06/30/2010
1) To conduct focus groups and individual interviews over a 4-week period with local Guatemalan field workers, traditional birth attendants and health facility medical staff to ascertain ability to identify and recruit women in the first trimester of pregnancy and assess gestational age.
Role: PI
PrimeRisk III Nursing Education Grant  
Training grant for FNP program; focus on immigrant populations  
Role: Project Director

Loan Repayment Program  
NIH/NCMHD—Health Disparities Research  
Indoor air pollution as a predictor of perinatal outcomes in Guatemala  
Loan repayment program for health disparities researchers  
Role: PI

UCSF Resource Allocation Program  
NACER—Neurodevelopment and anthropometric growth of infants exposed to household air pollution in rural Guatemala: A pilot study for a future clean stove/behavioral change intervention trial  
Bridge funding to support current NACER study and develop tools for behavioral change intervention for a future clean stove/behavioral change intervention trial  
Role: PI

UCSF Global Health Sciences Faculty Award  
Conduct an epidemiologic study of the impact of wood smoke exposures on birth/neonatal outcomes in Guatemala and/or Peru. Assess environmental health curricula in Latin American nursing schools and auxiliary health worker training programs, including environmental health education targeting the pregnancy and neonatal periods.  
Role: PI
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Vlahov, David

POSITION TITLE
Dean and Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
DVLAHOV

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
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<th>DEGREE (if applicable)</th>
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<tr>
<td>Earlham College, Richmond, IN</td>
<td>B.A.</td>
<td>1974</td>
<td>History</td>
</tr>
<tr>
<td>University of Maryland, Baltimore, MD</td>
<td>B.S.N.</td>
<td>1977</td>
<td>Nursing</td>
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<tr>
<td>University of Maryland, Baltimore, MD</td>
<td>M.S.</td>
<td>1980</td>
<td>Nursing</td>
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<tr>
<td>The Johns Hopkins University, Baltimore, MD</td>
<td>Ph.D.</td>
<td>1988</td>
<td>Epidemiology</td>
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A. Personal Statement

As a collaborator for the proposed UC Global Health PhD program, I bring a record of research, teaching and service that may be considered for the role. I have been a NIDA funded researcher for over 23 years and received a NIDA MERIT Award. My research has included medical consequences of drug abuse, epidemiology of substance abuse and prevention, violence and mental health. I have a background in mental health research after disasters. I have received the Golden Apple Award for teaching twice while at Hopkins. I been primary doctoral or post doctoral advisor for 25 successful researchers and academicians; have served on multiple pre-doctoral committees; been primary or support mentor on multiple NRSA, NIH Minority supplements and K awards and mentored junior faculty into Professorships and independent research careers. I have assembled multi-disciplinary teams including epidemiology, biostatistics, genetics, immunology, economics, behavioral and social sciences.

B. Positions and Honors

1988-91 Assistant Professor of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD.
1990-01 Joint Appointment, The Johns Hopkins School of Medicine, Baltimore, MD.
1991-96 Associate Professor of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD.
1996-01 Professor of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD.
1999-11 Professor of Clinical Epidemiology, Mailman School of Public Health Columbia University, NY NY.
2006-11 Senior Vice President for Research, The New York Academy of Medicine, New York, NY.
2001-11 Executive Committee, NIAID HIV Prevention Trials Network (HPTN)
2007-11 Co-Director, National Program Office, RWJF Health and Society Scholars Program.
2011- Dean and Professor, UCSF School of Nursing, San Francisco, CA

Honors:
Ruth B.Freeman Award - The Johns Hopkins University, 1988 Fellow, Infectious Disease Society of America,1999.
Delta Omega National Merit Award, 1988 Johns Hopkins Distinguished Alumni Award 2011
American Epidemiological Society, 1995 Member, Institute of Medicine, NAS 2012
MERIT Award, NIH, 1996-2006
C. Most relevant to the current application


D. Research Support (Current and recently completed)

RO1(Koblin) 09/01/09 – 08/30/14
NIAIDS
Community Factors, HIV and Related Health Outcomes in New Who Have Sex with Men
A cross sectional study of MSM to explore the influence of neighborhood of residence on sexual risk behaviors, drug use and depression.

1R24 MD002754-01 (Vlahov)  05/22/08 – 01/31/14
NCMHD
Harlem Community Academic Partnership: Influenza Immunizations
A community based participatory research project (CBPR) and evaluation for improving influenza immunizations in high risk populations within disadvantaged minority communities

1R21 MH 081173-01A1 (Ompad)  03/01/08 – 02/28/10
NIMH
Methods for Evaluating the Physical and social Environments of Urban Neighborhoods
The purpose of this study is to design and evaluate a comprehensive, systematic approach to characterizing urban neighborhoods through direct observation of neighborhood characteristics

1U58 DP000943-01 (Calman)  9/29/07 – 9/28/12
CDC
New York REACH CEED
Racial and Ethnic Approaches to Community Health US
An evaluation program designed to develop community capacity to eliminate racial and ethnic disparities in health.

5R01 DA022123-02 (Vlahov)  09/20/07 – 07/31/12
NIDA
Heroin Cessation and HIV Risk: A Case-Control Study
The purpose of this case-control study is to characterize the prognostic indicators, including HIV infection, for the positive outcome of sustained heroin cessation among persons with a prior history of chronic heroin use within economically disadvantaged, predominantly racial/ethnic minority neighborhoods in New York City.

1R01 DA022144-01A2 (Fuller)  09/01/07 - 08/31/11
NIDA
Pharmacy Referral Intervention: IDU Access to Services
Using community-based participatory research, this intervention will connect pharmacies with community-based organizations to assist pharmacy staff in the provision of harm reduction information to injection drug users who purchase syringes from pharmacies through the NYS Expanded Syringe Access Demonstration Program (ESAP)

5R37 DA04334 (Kirk)  12/01/06 - 11/30/11
NIDA
Natural History of HIV Infection among Drug Users (ALIVE)
Determine the natural history if HIV infection in a cohort of seropositive HIV drug users

1R01 DA017004-01A1 (Vlahov)  09/30/03 - 06/30/08
NIDA
Rapid Vaccination of Hard to Reach Populations.
Proposed is a quasi experimental design involving community participatory intervention that is designed to rapidly immunize hard to reach (HRT) populations in disadvantaged minority communities.
A. Personal Statement

Dr. Paul Volberding is a Professor of Medicine at the University of California, San Francisco, the Director of the AIDS Research Institute, Research Director of Global Health Sciences and the Principal Investigator and Co-Director of the UCSF-Gladstone Center for AIDS Research. Dr. Volberding Chairs the Scientific Advisory Board of the Infectious Disease Institute of Makerere University in Kampala Uganda. He received his undergraduate and medical degrees at the University of Chicago and the University of Minnesota, respectively, and finished training at the University of Utah and the University of California, San Francisco, where he was boarded in Medical Oncology. Dr. Volberding served as the Chief of Oncology at San Francisco General Hospital and founded the HIV/AIDS program there initially based on his extensive work with AIDS-related malignancies, particularly Kaposi's sarcoma. He was until recently the Chief of the Medical Service at the San Francisco VA Medical Center. While his career has primarily focused on the development of antiretroviral therapy for HIV infection, Dr. Volberding has remained involved in a broad range of HIV-related issues. Dr. Volberding interacts and mentors many residents and fellows including those in infectious diseases and oncology. Under his leadership the UCSF-Gladstone CFAR has developed a strong program of support to early career stage investigators through pilot grant awards and a leading mentorship effort. In that capacity and as the Chair of the Scientific Advisory Board for the Infectious Disease Institute of Makerere University in Kampala Uganda, he has encouraged the expansion of international research through NIH CFAR supplements and co-hosted a pan-CFAR Sub-Saharan Africa Scientific Symposium in Uganda in 2011. He served as the liaison to the VA Medical Center for the UCSF Comprehensive Cancer Center. He is the co-editor in chief of the Journal of Acquired Immune Deficiency Syndrome, and a founder of HIV InSite, a comprehensive source of HIV information. He served as Co-Editor of the major textbook, Global HIV/AIDS Medicine. He is the founder and Chair of the Board of the International Antiviral Society - USA. He has served as the President of the HIV Medical Association of the IDSA and of the International AIDS Society. He was elected a member of the Institute of Medicine of the National Academy of Sciences in 1999.

B. Positions and Honors

Positions and Employment

1968-1971  Virology Laboratory Assistant, Dr. Marc Beem, University of Chicago
1971-1975  University of Minnesota School of Medicine
          Avian type C virus receptor research, Dr. Charles Moldow
1975-1978  Medicine Internship and Residency, University of Utah Medical Center, Salt Lake City
1978-1979  Clinical Fellow in Hematology/Oncology, University of California, San Francisco
          Clinical research conducted with Dr. Michael Friedman on therapy of hepatic tumors
1979-1981 Research Fellow in Hematology/Oncology, University of California, San Francisco
Research conducted in the laboratory of Dr. Jay A. Levy studying mechanisms controlling infection with xenotropic type C retroviruses

1981-1986 Assistant Professor of Medicine, University of California, San Francisco

1981-2001 Chief, Medical Oncology Division, San Francisco General Hospital

1984-2001 Director, AIDS Program, San Francisco General Hospital

1986-1990 Associate Professor of Medicine, University of California, San Francisco

1988-Present Director, UCSF-GIVI Center for AIDS Research, University of California, San Francisco

1990-Present Professor of Medicine, University of California, San Francisco

2001-2012 Chief of the Medical Service, San Francisco Veterans Affairs Medical Center

2010-Present Director, Global Health Program, UCSF Clinical and Translational Sciences Institute

2012-Present Director, UCSF AIDS Research Institute

2012-Present Research Director, UCSF Global Health Sciences

Other Experience and Professional Memberships

1982-Present American College of Physicians-Fellow (1994)

1982-Present American Association for the Advancement of Science (Fellow, 1995)

1986-Present Western Society of Clinical Investigation

1988-Present International AIDS Society (Founding Director and Past President, 1990-1992)

1988-Present NIH / DHHS Guidelines for Use of Antiretroviral Drugs-Panel Member

1988-Present The Journal of the Acquired Immune Deficiency Syndromes (Co-Editor-In-Chief)

1990-Present HIV InSite (http://hivinsite.ucsf.edu), Director

1993-Present Founder and Board Chair, International Antiviral Society - USA, Inc.

1994-Present Association of American Physicians

1999-Present Institute of Medicine of the National Academy of Sciences

2000-Present HIV Medicine Association of the IDSA (President, 2003-2005)

2002-2004 University of Chicago Alumni Association, Board of Governors (President)


2004-Present PANGAEA Global AIDS Foundation, Board of Directors

2006-2011 Office of AIDS Research (NIH) Advisory Council

2007-2011 Chair DSMB NIAID Clinical Trials (Asia)

2012-Present Chair DSMB NIAID Co-Morbidities and Co-Infections in HIV

2001-Present Northern California Institute for Research and Education Executive Board (Board of Directors Chair 2008-Present)

C. Selected peer-reviewed publications

Most relevant to the current application


5. El-Sadr WM, Morrison JS, Quinn T, Volberding P. A chronicle of hope and promise: the world as it was, as it is, and as it can be. J Acquir Immune Defic Syndr. 2012 Aug 15; 60 Suppl 3:S49-50.

Additional recent publications of importance to the field (in chronological order)


D. Research Support

**Ongoing Research Support**

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Agency/Institution</th>
<th>Role/Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>P30 AI027763 (Volberding)</td>
<td>NIH/NIAID UCSF-GIVI Center for AIDS Research</td>
<td>PI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The primary aim of this center grant is to nurture and sustain innovative multidisciplinary HIV research at the intersections of the basic, clinical, behavioral, and epidemiologic scientific disciplines.</td>
</tr>
<tr>
<td>UL1 RR024131 (Johnston)</td>
<td>NIH Clinical and Translational Science Institute</td>
<td>Role: Global Health Program Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To transform clinical and translational research to ensure that the best health solutions get to patients as quickly as possible. CTSI is a cross-campus institute whose goals are to enhance, support, and integrate existing infrastructure, training programs, implementing changes that promote research and education in clinical and translational science at UCSF, affiliated institutions, and in participating communities.</td>
</tr>
<tr>
<td>R13 AI102630 (Volberding)</td>
<td>NIH/NIAID Recent Advances in AIDS and HIV Research</td>
<td>PI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The primary aim of this conference grant is to provide funding for the annual Center for AIDS Research international symposium.</td>
</tr>
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</table>

**Completed Research Support**

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Agency/Institution</th>
<th>Role/Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>P30 CA82103 (McCormick)</td>
<td>NIH Helen Diller Family Comprehensive Cancer Center Support Grant (Director’s Group)</td>
<td>Role: Liaison Representing Veterans Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Within the senior leadership structure of the Cancer Center are leadership positions called &quot;Liaisons&quot;. These leaders serve as liaisons either to geographic sites, constituencies or activities that are not otherwise well represented within our senior leadership roster. The liaisons interact with Bay Area hospitals, universities, medical centers, and UCSF departments to coordinate research efforts, share information, promote cooperation, and increase the Cancer Center’s value to the local community. The liaisons are members of the Cancer Center Executive Committee and participate in our quarterly leadership retreats.</td>
</tr>
</tbody>
</table>
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Whitmarsh, Ian

POSITION TITLE
Associate Professor of Anthropology

eRA COMMONS USER NAME (credential, e.g., agency login)
Iwhitmarsh

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Berkeley</td>
<td>B.A.</td>
<td>5/98</td>
<td>Anthropology</td>
</tr>
<tr>
<td>Princeton University</td>
<td>Ph.D.</td>
<td>11/05</td>
<td>Anthropology</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill</td>
<td>Postdoctoral</td>
<td>8/07</td>
<td>ELSI of Genetics</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>Postdoctoral</td>
<td>8/08</td>
<td>Science, Technology, and Society</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Positions and Employment
2004-2005  Lecturer, Anthropology Department, Princeton University

2005-2007  Postdoctoral Fellow, Carolina Center for Genome Sciences, University of North Carolina, Chapel Hill

2007-2008  Postdoctoral Associate, Science, Technology and Society Department, Massachusetts Institute of Technology

2008-2012  Assistant Professor, Anthropology, History, and Social Medicine Department, University of California San Francisco

2012-      Associate Professor, Anthropology, History, and Social Medicine Department, University of California San Francisco

B. Peer-reviewed Publications


C. Research Support

Ongoing Research Support

Study Title: Perspectives on Diabetes Causes, Information, and Care among South Asian Americans
Whitmarsh (PI) 7/2009-
In-depth interviews among individuals participating in a UCSF medical study of the metabolic syndrome in South Asians (Metabolic Syndrome and Atherosclerosis in South Asians Living in America study (MASALA) (Principal Investigator: Alka Kanaya)) and South Asians in the Bay Area. The interviews explore the participant’s views of the causes, information, and treatments of diabetes, including they think of the medical information and care available to them, their views of the measures they have been advised to take, and what they think are the causes of diabetes in their families and larger community. This study contributes to understanding the ways communities with high levels of diabetes understand the condition and medical practice around it.
Role: Principal Investigator

Study Title: Perspectives on Diabetes and Obesity in Trinidad and Tobago
Whitmarsh (PI) 6/2008-
The project uses in-depth interviews to explore how the relationship between heredity, obesity, diabetes, cholesterol, and heart disease is perceived in the Caribbean country of Trinidad and Tobago. The project further examines what patients think of medical care and information on their community. A second arm of the study explores the ways medical practitioners and researchers in Trinidad and Tobago view and act on the high rates of the metabolic syndrome among Trinidadians.
Role: Principal Investigator

Completed Research Support

Study Title: Family Experiences of Turner, Klinefelter’s, and Triple X Diagnosis
Whitmarsh (PI) 1/2006-1/2007
Interviews of families of children diagnosed with Turner’s and Klinefelter’s syndromes about receiving and utilizing genetic diagnoses. Open-ended in-depth interviews examined parent perspectives about the significance of the diagnosis for their family, their view of medical information and care based on the diagnosis, and the utility of genetic testing for the condition. The study was carried out as part of a Center for Excellence in ELSI Research (CEER) interdisciplinary team exploring the implications of expanded newborn screening. Findings were published in Social Science and Medicine and Pediatrics.
Role: Principal Investigator

Study Title: Significance of the Genetic of Asthma and Race Research in the Caribbean
Whitmarsh (PI) 6/2002-9/2004
A long-term ethnographic study conducted in Barbados, researching the significance of a genetics of asthma study in the context of healthcare and pharmaceutical industry approaches in the Caribbean. Multiple in-depth interviews and participant-observation were carried out with interviewing genetics team, study facilitators, participants, pharmaceutical company representatives and distributors, members of the Ministry of Health, doctors, nurses, and pharmacists, and asthma outreach NGOs in Barbados. Findings were published in American Ethnologist, Medical Anthropology, Anthropological Quarterly and in a book, Biomedical Ambiguity: Race, Asthma, and the Contested Meaning of Genetic Research in the Caribbean, published by Cornell University Press in 2008.
Role : Principal Investigator
BIOGRAPHICAL SKETCH

NAME
Gavin Mark Yamey

POSITION TITLE
Lead, Evidence-to-Policy initiative, Global Health Group, University of California San Francisco

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<tr>
<td>Oxford University</td>
<td>BA</td>
<td>06/90</td>
<td>Physiological Sciences</td>
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<tr>
<td>University College London</td>
<td>MB BS</td>
<td>06/94</td>
<td>Medicine</td>
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<tr>
<td>Royal College of Physicians UK</td>
<td>MRCP</td>
<td>06/97</td>
<td>Internal Medicine</td>
</tr>
<tr>
<td>Oxford University</td>
<td>MA (honorary)</td>
<td>06/07</td>
<td>Physiological Sciences</td>
</tr>
<tr>
<td>London School of Hygiene &amp; Tropical Medicine</td>
<td>MSc.</td>
<td>09/10</td>
<td>Public Health</td>
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</table>

Principal Positions Held
2010-present Lead, Evidence-to-Policy Initiative (E2Pi), The Global Health Group, Global Health Sciences, University of California, San Francisco (UCSF); Course Director for Global Health Policy, Masters in Global Health, UCSF
2002-2004 Assistant Editor, BMJ (British Medical Journal) and Deputy Physician Editor, Best Treatments
2000-2002 Deputy Editor, wjm—Western Journal of Medicine (co-owned by BMJ Publishing Group and University of California)
1999-2000 Editorial Registrar (a fellowship in medical journalism and editing), BMJ
1994-1999 Clinical appointments (internal medicine, London, UK)

Other Positions Held
1994-1995 Whittington Hospital (University College London Medical School) and Chase Farm Hospital London
House Officer (HO) in General Medicine and General Surgery
1995 Departments of Renal and Respiratory Medicine, The Royal Postgraduate Hospital, Hammersmith, London
Senior House Officer (SHO) in Medicine
1996 The National Hospital for Neurology and Neurosurgery, London
SHO in Neurology
1997 St Bartholomew's Hospital, London
SHO in Medical Oncology
1997-98 Northwick Park, London
SHO in General Medicine & Elderly Care
1998-99 The Mildmay Hospital, London
SHO in HIV/AIDS Palliative Care
1999 Regional Neurological Rehabilitation Unit (RNRU), the Homerton Hospital, London
Registrar in Neurology
2001 Tim Albert Training Course on Medical Editing For Editors from the Developing World, Barcelona Peer Review Congress
Assistant Tutor
2002 The Open University, United Kingdom
Honorary Consultant
2003 World Health Organization
Temporary Adviser
2008 TDR (the WHO/World Bank/UNICEF/UNDP Special Programme for Research and Training in
Tropical Diseases)

**Honors and Awards**

1990  Martin Wronker Prize for achievement at Oxford University (2nd highest degree in the University)
1990  St Anne's College Oxford Prize
1994  University College London Prizes for MB BS in Psychiatry, and Academic & Extracurricular Achievement
1994  University of London Prize in Pharmacology
2009  Kaiser Foundation Mini-Fellowship in Global Health Reporting
2011  Distinction for MSc degree in Public Health at London School of Hygiene and Tropical Medicine
2011  University of London 150th Anniversary Prize for MSc performance (this prize is awarded to students who, in completing their programs, achieved the highest set of marks for the whole degree)

**Memberships**

1993-1994  Medact (Medical Action for Global Security)
1994-1999  British Medical Association
2006-2008  Council of Science Editors

**Service to Professional Organizations**

2005-2007  Member of the Council of Science Editors Task Force on Journals, Poverty and Human Development (http://www.councilscienceeditors.org/services/taskforce.cfm)
2007-present  "Small Journals Taskforce" of the World Association of Medical Editors
2008-present  Equity Edit (charitable organization which helps to fund small, innovative, pro-poor global health organizations), Advisory Board
2008-present  Global Health Corps, mentor to Global Health Corps Fellows (www.ghcorps.org)
2012-2013  Member of the Center for Global Development Working Group on Value for Money in Global Health
2012-present  Commissioner, Commission on Investing in Health (www.globalhealth2035.org)
2013-present  Commissioner, Commission on Global Surgery (http://www.globalstartup.info/)

**Service to Professional Publications**

2010-2013  Editorial Board Member, BMJ (http://bmj.com)
2010-present  Editorial Board Member, Scholarly and Research Communication (http://journals.sfu.ca/src/index.php/src/index)
2010-present  Ad hoc referee for Annals of Internal Medicine, BMJ; the Biomed Central journals; Health Affairs; African Health Sciences; freelance editor at PLoS Medicine (approximately 1-2 papers per week)

**Selected Peer-Reviewed Publications**

7. **Yamey G.**  Excluding the poor from accessing the biomedical literature: a rights violation that impedes global health.  Health and Human Rights: An International Journal, North America, 10 7 05 2008.  This
paper was selected for inclusion in Faculty of 1000 Medicine (http://f1000.com/), as an outstanding paper (rating: "6, recommended"); see http://f1000.com/4082956?key=z2p98jg1prcyypf.


14. Yamey G. What are the barriers to scaling up health interventions in low and middle income countries? A qualitative study of academic leaders in implementation science. Globalization and Health 2012;8:11


Textbook

Research Support
Ongoing research support

OPPGH4830/UCSF Award A113448 (Co-Investigator) 11/01/2009 - 10/31/2014
Bill & Melinda Gates Foundation $1,680,471 direct/yr1
The goal of this project is to develop and synthesize evidence to inform global health policy and decision-making.

OPP1106213 / UCSF Award A123077 (PI) 03/01/2014 - 09/30/2014
Bill & Melinda Gates Foundation $295,454 direct/yr1
**Commission on Investing in Health (CIH) Phase 2: Leveraging the**
Convergence Indicators to Shape the Post - 2015 Development Goals

<table>
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<tr>
<th>Project ID</th>
<th>Start Date</th>
<th>End Date</th>
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<tbody>
<tr>
<td>A123102 (PI)</td>
<td>03/17/2014</td>
<td>12/31/2014</td>
</tr>
<tr>
<td>Swedish Expert Group for Aid Studies</td>
<td>$12,811 direct/yr1</td>
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<tr>
<td>Future Role of Swedish Health Aid</td>
<td>$12,811 total direct</td>
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**Completed research support**

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<tr>
<td>A120829 (PI)</td>
<td>10/01/2012</td>
<td>02/28/2014</td>
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<tr>
<td>Center for Disease Dynamics, Economics and Policy (Prime funder: Bill &amp; Melinda Gates Foundation)</td>
<td>$21,794 directs/Yr 1</td>
<td>$302,945 total direct</td>
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<tr>
<td>Lancet Commission on &quot;Investing in Health: World Bank World Development Report 1993 @ 20 Years&quot;</td>
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<td>A122550 (PI)</td>
<td>07/01/2013</td>
<td>11/30/2013</td>
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<tr>
<td>SEEK Development (Prime Funder: Global Fund to Fight AIDS, Tuberculosis and Malaria)</td>
<td>$12,072 direct/yr1</td>
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<tr>
<td>Quantitative estimation of the Global Fund contribution to MDGs 4 &amp; 5</td>
<td>$12,072 total direct</td>
<td></td>
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<tr>
<td>P0054012 (PI)</td>
<td>03/19/2012</td>
<td>12/31/2012</td>
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<tr>
<td>SEEK Development</td>
<td>$9,350 direct/yr1</td>
<td></td>
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<tr>
<td>Prime: World Health Organization/UNITAID</td>
<td>$9,350 total direct</td>
<td></td>
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<tr>
<td>5-Year Evaluation of UNITAID</td>
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<tr>
<td>A119267 (PI)</td>
<td>02/06/2012</td>
<td>05/31/2012</td>
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<tr>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>$153,655 direct/yr 1</td>
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</tr>
<tr>
<td>Establishing Service Delivery Unit Cost Benchmarks to Inform Payment Rates by the Global Fund</td>
<td>$153,655 total direct</td>
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<tr>
<td>A118651 (PI)</td>
<td>07/12/2011</td>
<td>09/30/2011</td>
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<tr>
<td>Contractor: SEEK Development</td>
<td>$79,164 direct/yr1</td>
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<tr>
<td>Prime: WHO/Partnership for Maternal, Newborn and Child Health</td>
<td>$79,164 total direct</td>
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</tr>
<tr>
<td>Options for Improving Maternal, Newborn and Child Health through Strengthening the Global Aid Architecture</td>
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<tr>
<td>A116241 (PI)</td>
<td>11/01/2010</td>
<td>08/31/2011</td>
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<tr>
<td>Clinton Health Access Initiative</td>
<td>$276,875 direct/yr1</td>
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<tr>
<td>Prime Securing Sustained Financing for Successful Malaria Control: Building the Evidence Base and Supporting Practical Country Solutions</td>
<td>$276,875 total direct</td>
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</table>

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<td>A115807 (PI)</td>
<td>05/26/2010</td>
<td>12/31/2010</td>
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<tr>
<td>Global Fund to Fight AIDS, Tuberculosis &amp; Malaria</td>
<td>$51,903 direct/yr1</td>
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<tr>
<td>Review of experience to identify how to assess success of AMFm Phase 1</td>
<td>$51,903 total direct</td>
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<tr>
<td>Investigator</td>
<td>Date Range</td>
<td>Grantor</td>
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</tr>
<tr>
<td>N/A (Investigator)</td>
<td>01/01/2009 - 12/31/2009</td>
<td>Kaiser Family Foundation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Funding to investigate large scale implementation of evidence-based tools in East Africa: Sudan, Kenya, Uganda (investigative journalism fellowship)</td>
</tr>
<tr>
<td>39544 (PI)</td>
<td>03/02/2006 - 03/01/2010</td>
<td>Bill &amp; Melinda Gates Foundation</td>
</tr>
</tbody>
</table>
A. Personal Statement

My research activities have focused primarily on the study of the effects of radiation exposures in various settings, and on nutritional epidemiology, particularly as it relates to cancer risk. Throughout my career I conducted a number of epidemiological studies in many countries around the world, including Ukraine, Belarus, Bangladesh and Canada. For many years I was the principal investigator of the NCI-funded contract which provided scientific support for three studies of the consequences of the Chernobyl accident in Ukraine. Two cohort studies of thyroid cancer and other thyroid diseases were conducted among more than 25,000 exposed as young people to fallout from the accident in Ukraine and Belarus. The main focus of the studies was on the relationship between exposure to radioactive iodines and an increased risk of thyroid cancer and other thyroid diseases. The third study was a case-control study of leukemia in Chornobyl clean-up workers from Ukraine. Working with US and Ukrainian and Belarusian investigators, we maintained high study retention rates and provided great quality of care for patients in both countries.

Over the last 12 years I investigated the effects of radiation in a number of occupationally exposed cohorts in Canada, including nuclear workers, uranium miners and uranium processors. In addition, in recent years I worked with the cohort of 64,000 Canadian tuberculosis patients exposed to repeated chest fluoroscopies in the 1930s and 1940s. Most recently, I collaborated on an EPA-funded cohort study investigating carcinogenic effects of arsenic exposure among 12,000 adults in Bangladesh, analyzing the modifying effects of nutrition on the association between exposure to water arsenic and skin lesions.

In addition to my research activities, I have extensive experience in teaching Epidemiology to various levels of learners. Past courses include a large introductory course in epidemiology to Master’s level students at Columbia University, advanced research methods courses and seminars for doctoral students in the Department of Epidemiology and Biostatistics at UCSF and at the School of Nursing at UCSF, as well as smaller seminar-style courses in environmental and occupational epidemiology, cancer and pharmacoepidemiology. I am the author of Epiville, an open-access website featuring a set of interactive modules providing training in main epidemiological principles (http://www.ccnm.columbia.edu/projects/epiville/). Since its creation in 2000, the website has been used extensively by national and international academic educators as well as by public health practitioners from around the world.

B. Positions and Honors

Positions and Employment
1993-1995  Residency in Internal Medicine, Chief Resident, Lviv State Medical School, Ukraine
2000-2003  Staff Associate, Department of Epidemiology, Mailman School of Public Health (MSPH), Columbia University, New York, NY
2003-2004  Instructor, Department of Epidemiology, MSPH, Columbia University, New York, NY
2004-2008 Assistant Professor, Department of Epidemiology, MSPH, Columbia University, New York, NY
2008-2010 Assistant Professor, Department of Epidemiology and Biostatistics (DEB), School of Medicine (SOM), University of California, San Francisco (UCSF), San Francisco, CA
2010-2012 Associate Professor, DEB, SOM, UCSF, San Francisco, CA
2012- Associate Professor, In Residence series, DEB, SOM, UCSF, San Francisco, CA
2013- Head, Occupational and Environmental Area of Concentration, DEB, SOM, UCSF, San Francisco, CA

Other Experiences and Professional Memberships
1997- Member, American Public Health Association
2003- Member, Radiation Research Society
2004- Member, American Society of Preventive Oncology
2004- Member, Society for Epidemiologic Research
2004-2006 Member, Advisory Council on Chronic Lymphocytic Leukemia Radiogenicity Research, National Institute for Occupational Safety and Health
2005-2007 Adviser, Committee on Reconsideration of Exclusion of Chronic Lymphocytic Leukemia from Eligibility for Compensation under EEO/CPA, National Institute for Occupational Safety and Health
2006- Member, American Statistical Association
2012- Member, NIH Special Emphasis Study Section ZRG1 PSE-Q (02) M
2012- Member, NIH Peer Review Committee ZCA1 SRLB-3 M2 Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts

Honors
1993 Graduation with Distinction (Summa Cum Laude), Minsk State Medical School, Minsk, Belarus
1995 Senator E. Muskie Scholarship for Graduate Studies for Outstanding Students from the Commonwealth of Independent States, U.S. Agency for International Development
2003 Sydney Kark Award in Epidemiology for doctoral student committed to work in international health, MSPH, Columbia University, New York, NY
2003 Young Investigator Award, 12th International Congress of Radiation Research, Brisbane, Australia
2004 Calderone Junior Faculty Research Prize, MSPH, Columbia University, New York, NY
2005 Dean’s Award for Innovation in the Curriculum, MSPH, Columbia University, New York, NY
2006 New Investigator Award, American Statistical Association’s Conference on Radiation and Health, Monterey Beach, CA
2007 Young Investigator Award, 13th International Congress of Radiation Research, San Francisco, CA
2007 Invited Participant, Centers for Disease Control and Prevention (CDC) Workshop on Monoclonal B-cell Lymphocytosis and Chronic Lymphocytic Leukemia: Etiologic Factors, Precursors, and Disease, Washington, DC
2008 Invited Speaker, 17th International Conference on Health and Environment: Global Partners for Global Solutions, United Nations Headquarters, New York, NY
2008 Invited Speaker, Low-Dose Radiation Epidemiology Workshop, Department of Energy, Washington, DC
2010 Invited Speaker, 43rd annual meeting of the Society for Epidemiologic Research, Seattle, WA
2011 Certificate of Appreciation for 'Valued Authors,' American Journal of Epidemiology
2012 Symposium Chair, Invited Speaker, 58th annual meeting of the Radiation Research Society, San Juan, Puerto Rico
2012 Keynote Speaker, International Symposium for 50th Anniversary of RIRBM, Hiroshima University, “Support for Restoration from Fukushima Daiichi Nuclear Disaster,” Hiroshima, Japan
2012 Session Chair, Invited Speaker, American Statistical Association’s Conference on Radiation and Health, Kennebunkport, ME
2013 Keynote Speaker, 11th International Conference on the Health Effects of Incorporated Radionuclides (HEIR 2013), Berkeley, CA
2014 Symposium Chair, Invited Speaker, 47th annual meeting of the Society for Epidemiologic Research, Seattle, WA
2014 Member of the Organizing Committee, Chair of the Workshop for Early Stage Radiation
C. Selected Peer-reviewed Publications (in chronological order, selected from 54).


D. Research Support

**Ongoing Research Support**

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Investigator(s)</th>
<th>Title</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>K07CA132918</td>
<td>Zablotska (PI)</td>
<td>Risk of leukemia after protracted exposures to low doses of ionizing radiation</td>
<td>08/01/14</td>
<td>07/31/15</td>
</tr>
</tbody>
</table>

No cost extension with funds for research only (no salary support).

Role: PI

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Investigator(s)</th>
<th>Title</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>69922-565244</td>
<td>Zablotska (PI)</td>
<td>Meeting of international collaborators to extend studies of radiation-related hematologic malignancies among cleanup workers of the Chornobyl nuclear accident.</td>
<td>02/01/13</td>
<td>07/01/14</td>
</tr>
</tbody>
</table>

UCSF Strategic Opportunities Support (SOS) Program, Multidisciplinary Research Project Planning Award

This project is intended to fund an international conference of collaborators to develop plans to apply for a R03 grant to conduct a pooled analysis of leukemia and multiple myeloma among Chornobyl cleanup workers from Ukraine, Belarus, Russia and Baltic countries and for an R01 grant to extend and expand the follow-up of this cohort from 20 to 30 years.

Role: PI

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Investigator(s)</th>
<th>Title</th>
<th>Start Date</th>
<th>End Date</th>
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</thead>
<tbody>
<tr>
<td>87055-13-0577</td>
<td>Zablotska (PI)</td>
<td>Canadian Nuclear Safety Commission</td>
<td>08/01/14</td>
<td>07/31/15</td>
</tr>
</tbody>
</table>
Mortality risks in the pooled analysis of the Canadian and German uranium workers.
The data from the study of Eldorado uranium workers from Canada and from the Wismut study of uranium miners from Germany will be pooled to analyze mortality risks from exposures to radon decay products and whole-body gamma radiation with special emphasis on radiation risks of cardiovascular diseases.
Role: PI

Completed Research Support
K07CA132918 Zablotska (PI) 08/09/10 - 08/08/14 NIH/NCI

Risk of Leukemia after Protracted Exposures to Low Doses of Ionizing Radiation
This Academic Career Development Award provided funding for salary support and continued training in the area of genetic and cancer epidemiology. Additional funds were provided to conduct a study examining the association between exposures to low doses of ionizing radiation and risk of leukemia in Chornobyl cleanup workers from Ukraine and to assess the role of environmental and genetic factors in carcinogenesis from a new multidisciplinary perspective.
Role: PI

R20121220 Zablotska (PI) 02/01/08 - 01/31/14 Canadian Nuclear Safety Commission

Analysis of cancer incidence and mortality of uranium and radium processing workers from Port Hope.
The funding provided support for organizing a cohort of workers from the Port Hope uranium and radium processing facility in Canada from employment records. Risk analyses were conducted by linking the cohort with the Canadian Mortality (1950-1999) and Incidence (1969-1999) Databases.
Role: PI

N01-CP-21178 Zablotska (PI) 10/01/06 - 08/08/10 NIH/NCI

Health effects of the Chernobyl accident on the incidence of thyroid cancer and leukemia.
This contract project consisted of two large cohort studies of thyroid cancer and other thyroid diseases in those exposed to Chornobyl fallout as children in Ukraine and Belarus. The third study was a case-control study of leukemia in clean-up workers in Ukraine. The contract was continuously funded by NCI since 10/01/1997. Dr. Zablotsks became a PI on 10/01/2006.
Role: PI

n/a Kubale (PI) 11/01/08 - 07/01/10 NIOSH

Nested case-control study of leukemia mortality among nuclear power industry and DOE facilities workers occupationally exposed to ionizing radiation.
The project examined the characteristics of workers from the cohort study of U.S. nuclear power industry workers and the possibility of pooling the data from this study with the data for workers from DOE nuclear facilities to examine risks of leukemia in this cohort due to occupational radiation exposures.
Role: Sub-contract PI

n/a Zablotska (PI) 01/01/07 - 08/31/08 Canadian Nuclear Safety Commission

This project compared dose records for AECL employees with doses contained in the National Dose Registry of Canada and provided radiation risk estimates in this group based on revised exposure and cohort data.
Role: PI
Principal Investigator/Program Director: Ziegler, John L.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>John L. Ziegler, MD  MSc.</td>
<td>Professor in Residence Emeritus, Department of Medicine, UCSF</td>
</tr>
</tbody>
</table>

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amherst College, Amherst MA</td>
<td>BA</td>
<td>1956-1960</td>
<td>English Literature</td>
</tr>
<tr>
<td>Cornell University Medical College, New York NY</td>
<td>MD</td>
<td>1960-1964</td>
<td>Medicine</td>
</tr>
<tr>
<td>London School of Hygiene and Tropical Medicine</td>
<td>MSc</td>
<td>1996-1997</td>
<td>Epidemiology</td>
</tr>
</tbody>
</table>

Positions and Employment

1964-66 Medical Resident, Second (Cornell) Medical Division, Bellevue Hospital and Memorial Hospital-Sloan Kettering Cancer Center, New York, NY
1966-67 Clinical Associate, Medicine Branch, National Cancer Institute
1967-72 Founding Director, Uganda Cancer Institute, Makerere University Medical School, Kampala, Uganda; Senior Investigator, Medicine Branch, National Cancer Institute
1967-72 Honorary Lecturer in Medicine, Makerere University Medical School, and Honorary Senior Registrar, Mulago Hospital, Kampala, Uganda; Lecturer in Surgery, Harvard College; Clinical Associate Professor, Cornell University Medical College
1972-75 Chief, Pediatric Oncology Branch, Division of Cancer Treatment, NCI
1975-80 Deputy Clinical Director, National Cancer Institute and Associate Director, Clinical Oncology Program, Division of Cancer Treatment, NCI
1980-81 Editor-in-Chief, Journal of the National Cancer Institute, National Cancer Institute
1981-96 Associate Chief of Staff for Education and Staff Physician, Veterans Affairs Medical Center, San Francisco, California; Professor of Medicine in Residence, School of Medicine, University of California San Francisco
1994-96 Senior Scientist (on detail from Department of Veterans Affairs in collaboration with US Centers for Disease Control, International Agency for Research on Cancer, World Health Organization, Lyon, France. On assignment to Makerere University, Kampala, Uganda.
1976-78 Associate Clinical Professor of Medicine, George Washington University Medical School, Washington DC
1979-81  Associate Clinical Professor of Medicine, Georgetown University School of Medicine, Washington, D.C.
1980-81  Professor of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD
1990-91  Visiting Fulbright Professor of Medicine, Makerere University Medical School, Kampala, Uganda (on sabbatical leave from UCSF)
1992-93  Visiting Professor, University of Cambridge and Associate, Darwin College
1992-96  Visiting Professor, London School of Hygiene and Tropical Medicine
1994-96  Visiting Fulbright Professor of Medicine, Makerere University Medical School, Kampala, Uganda
1995-2000  Visiting Scientist, ICRF Cancer Epidemiology Unit, Oxford University
1996-  Professor in Residence Emeritus, School of Medicine, University of California, San Francisco
1998-2007  Director, Cancer Risk Program, UCSF Comprehensive Cancer Center
2007-13  Director, Masters Risk Program, UCSF Global Health Sciences

Honors and Awards (Selected):
1969  United States Public Health Service Commendation Medal
1972  Albert and Mary Lasker Award
1973  American Society of Clinical Investigation
1983  Heath Award, M.D. Anderson Hospital
1990-91  Fulbright Research Scholar, Makerere University, Kampala, Uganda
1991  Howard Gilman Foundation Honors Program Lecturer, NY University
1992  Associate, Darwin College, University of Cambridge
1994-95  Fulbright Research Scholar, Makerere University, Kampala, Uganda
2002  Paul P.Carbone Memorial Award in International Oncology, INCTR, Brussels

Publications (Selected for global health from a total of 250)
A. Personal Statement

The goals of the proposed research involve examining the impacts of war exposure on health among the older population in Vietnam. Much of my career has revolved around studying issues related to older adult health in developing countries. My work in this field has been supported by several NIH grants on which I have served as PI, including “Comparative Study of Health Transitions in Later Life (R01),” “Urban/Rural Disparities in Health and Mortality in China (R03),” and “Modeling Disability Trajectories in Rapidly Aging Populations (R21).”

Recent research that has been supported by UNFPA Cambodia and the Doha International Institute of Family Studies and Development, has examined aging issues in Cambodia. I led the 2004 Cambodian Elderly Survey, the first probability sample survey of older adults in that country. Using these data, I conducted some analyses on the impact of the Cambodian civil war in the late 1970’s on current support of older adults (published in Population and Development Review). The current project provides for a natural extension of my earlier research, with its focus on health and well-being of older adults in a country that lies in region within which I have done a great deal of work. The topic combines my expertise in older adult health in the region with a parallel focus on the impact of social change on elderly, particularly as it pertains to family relations. The project also fits well with a more recent focus I have on the impact of war and conflict on older adults in developing regions.

B. Positions and Honors

1992-1993: Research Associate, Centre on Aging, University of Victoria
1998-2000: Assistant Professor, Department of Sociology, University of Nevada-Las Vegas
2000-2006: Associate, Policy Research Division, Population Council, New York, USA
2006-2011: Professor, Department of Sociology, University of Utah
2006-2011: Senior Scholar, Institute of Public and International Affairs, University of Utah
2011: Professor, Department of Social and Behavioral Sciences, UCSF
2011: Superior Senior Researcher Award, University of Utah
2012: PK Whelpton Memorial Lecture, Scripps Gerontology Center
2014: UCSF Distinction in Teaching Award (nominee)
 NIH review panels:
ZAG1 ZIJ-1 (J1) Special Assignment Review Panel 10/03/11
ZRG1 PSE-K (02) Special Emphasis Panel/Scientific Review Group 1/24/2011
ZRG1 PSE-C (80) Social Science and Population Studies R03s, R15s, and R21s 2/26/10
ZRG1 HOP-B (90) Social Science and Population Studies R03s, R15s, and R21s 2/13/09
ZRG1 HOP-B (90) Social Science and Population Studies R03s, R15s, and R21s 6/15/07
ZRG1 HOP-B (90) Social Science and Population Studies R03s, R15s, and R21s 10/27/06
RG1 HOP-B (90) Social Science and Population Studies R03s, R15s, and R21s 2/24/06

C. Selected Peer-reviewed Publications (Selected from 70 peer-reviewed publications)

Recent publications most relevant to the current application


Additional recent publications of importance to the field (in chronological order)


D. Research Support

Ongoing Research Support

1R21 AG036938-01 Zimmer (PI) 04/01/10-03/31/13
NIH/NIH
Modeling Disability Trajectories in Rapidly Aging Populations
Disability of older adults is a major public health concern that affects both individual quality of life and societal costs of providing health care and other services. Yet studies that examine the disability experiences that individuals have over a number of years are rare in developed countries and virtually non-existent in developing countries, which are also experiencing rapid increases in their older populations. This project identifies the types of disability changes that are typical as people age in Taiwan and Mainland China, as well as characteristics of individuals who have more versus less favorable experiences.

Other Recently Completed Research Support

Doha International Institute for Family Studies & Development (PI) 01/01/10-12/31/12
The Impact of Migration on the Family and Intergenerational Solidarity
The purpose of the project is to conduct research on the economic and social impacts of migration in Cambodia on older people left behind in rural villages. The movement of people from rural areas in developing countries to cities and across borders, primarily in search of employment, is an inescapable consequence of development and the globalization process occurring throughout the world. This type of labor migration has become persistent and an accelerating reality in many developing countries. How this impacts on intergenerational family solidarity remains, however, a matter of considerable debate. This effort, which is a small scale pilot-type study, provides initial systematic empirical evidence that aims to expose some of the effects for the older generation in Cambodia.

University of Utah, Center on Aging Zimmer (PI) 01/01/11-12/31/11
The Impact of Migration of Adult Children on the Well-Being of Older Parents in Romania
This is an internal seed grant meant to facilitate preliminary research on the subject of the effect of migration on older people living in Romania.

United Nations Population Fund (PI & UN Consultant) 06/15/11-09/30/12
Rural/Urban Migration in Cambodia
The multiple aims of this project include first consulting on three data collection efforts in Cambodia: (1) recent migrants to the city of Phnom Penh; (2) households in rural areas with and without recent migrants; (3) rural village leaders. Next, there will be analysis of these datasets with the aim of developing a policy report on rural/urban migration in Cambodia. Finally, there is a capacity development component involving working directly with and training researchers at the Ministry of Planning in Cambodia.

R03 AG025729 Zimmer (PI) 05/01/07-04/30/10
NIH/NIA
Urban/Rural Disparities in Health and Mortality in China
The main aims of this project involve describing discrepancies in functional health and mortality across samples of older adults living in rural and urban areas of China and examining the extent to which these can be explained with reference to a combination of individual and community-level characteristics. Three secondary data sources are employed: The China Health and Nutrition Survey, The Sampling Survey on the Status of the Elderly in Urban and Rural China and The Beijing Multidimensional Longitudinal Study of Aging. Urban/rural discrepancies in health are explored using a variety of methodological techniques, including nested multivariate and multilevel models that combine and interact individual and community characteristics.