

## PREVENTIVE MEDICINE AND PUBLIC HEALTH AT UCSF

Preventive medicine is the medical specialty that deals with public health. Formal training in public health for physicians can include a residency in general preventive medicine and public health,\* academic training in public health through schools of public health or fellowships through the Centers for Disease Control and Prevention, such as the Epidemic Intelligence Service. The focus for education in preventive medicine and public health at UCSF is in the Division of Infectious Disease Epidemiology of the Department of Epidemiology and Biostatistics (<http://epibiostat.ucsf.edu/infectious-disease-epidemiology>).

UCSF offers both a joint M.D.-M.P.H. program with the School of Public Health at Berkeley and residency programs in General Preventive Medicine and Public Health (<http://epibiostat.ucsf.edu/preventive-medicine-residency-pmr>) and Occupational Medicine (<https://oem.ucsf.edu/education/residency.html>). Opportunities for student projects in global health and international public health are described elsewhere (<http://meded.ucsf.edu/gh>) as is our one-year M.S. degree in Global Health (<http://globalhealthsciences.ucsf.edu/education/masters-program>)

### Medical student training in preventive medicine and public health

All students receive basic instruction in public and global health during the foundational courses in the first year and in epidemiology and evidence-based medicine throughout the first and second years. For students interested in studying preventive medicine and public health in depth during medical school, there are three options:

- Obtain a **master's degree in public health (M.P.H.)** between the third and fourth years. There is a formal well-attended joint program with the School of Public Health at Berkeley for UCSF medical students (<http://meded.ucsf.edu/mse/ucsfuc-berkeley-md-mph-program>), but students have also gone to other schools of public health and the London School of Hygiene and Tropical Medicine for its M.Sc. and M.P.H. programs (<http://www.lshtm.ac.uk>). There are three other schools of public health in California – Loma Linda University (<http://www.llu.edu/llu/sph/>), San Diego State University (<http://publichealth.sdsu.edu>) and UCLA (<http://www.ph.ucla.edu>). Stanford also provides one-year masters of science programs in epidemiology (<http://med.stanford.edu/epidemiology/degree.html>) and in health services research (<http://med.stanford.edu/mshsr/>). A list of accredited U.S. and Mexican schools of public health can be found at <http://www.asph.org/document.cfm?page=200>.

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\* The American Board of Preventive Medicine provides specialty board certification in general preventive medicine and public health, occupational medicine and aerospace medicine and subspecialty certification in undersea and hyperbaric medicine and toxicology (<http://www.abprevmed.org>). While all of these specialties and subspecialties have common requirements that deal with population-based health care, public health is the primary focus of programs in general preventive medicine and public health.

- Obtain a **one-year master's of science degree in Global Health from UCSF** between the third and fourth years. This degree offers many of the same features as the MPH degree but provides a broader base of knowledge in global health and the opportunity for a capstone project conducted overseas. More information is available at: <http://globalhealthsciences.ucsf.edu/education/masters-program>.
- Do a **fourth-year course clerkships** in preventive medicine and public health offered through the Department of Epidemiology and Biostatistics. Students need not have obtained an M.P.H. to take these. There are three one-month or longer clerkships:
  - **EPI 140.07. Senior Clerkship in Preventive Medicine and Public Health.** This course number is used for rotations in public health agencies within Northern California, such as, the Alameda County Public Health Department, the San Francisco Department of Public Health, the San Mateo County Health Services Agency, the California Department of Public Health and others. Activities include disease control, surveillance, outbreak investigations and public policy development. Opportunities exist within the broad areas of communicable disease control, environmental health, maternal-child health, chronic disease and injury control, and general public health.
  - **EPI 140.02. Off-Campus Clerkship in Preventive Medicine and Public Health.** This course number is used for rotations outside of Northern California. Course content is the same as EPI 140.07. For students interested in the 6-8 week long Epidemiology Elective for senior medical and veterinary students at the Centers for Disease Control and Prevention in Atlanta, please see <https://www.cdc.gov/epielective/alumni.html>, which needs to be scheduled as EPI 140.02. This needs to be scheduled by March 30 of your third year.
  - **EPI 140.08. Clerkship in Human and Veterinary Disease Ecology.** This is a full-time clerkship spent primarily in Sacramento with the California Department of Public Health's Vector-Borne Disease Section and Veterinary Public Health Section. Activities focus largely on field investigation of zoonotic disease outbreaks. The rotation is conducted in collaboration with the School of Veterinary Medicine on the Davis campus. Students must show proof of current pre-exposure rabies vaccination, which takes about 28 days to complete, so advanced planning is required.
  - **Centers for Disease Control and Prevention's Epidemiology Elective Program.** The Epidemiology Elective Program (EEP) trains medical and veterinary students in applied epidemiology, public health, and global health. Students learn by hands-on experience and mentorship by CDC subject matter experts. This program offers assignments during 6- or 8-week rotation periods largely based at CDC in Atlanta, Georgia. Students are eligible to apply if they are currently enrolled in an accredited medical or veterinary school and have completed 2

years of coursework. Every effort is made to place students in an assignment that provides leadership experience that aligns with their career goals and preferred public health subject area. Most schools award course credit for participation in EEP. Assignments may involve: (1) participating in surveillance of a disease, injury, or other health condition, (2) analyzing health data to identify new risk factors for disease, (3) assisting in the field to investigate an outbreak, and (4) contributing to CDC publications and guidelines of major public health importance. More information is available at [www.cdc.gov/epielective/alumni](http://www.cdc.gov/epielective/alumni) and application materials at <https://www.cdc.gov/epielective/application.html>. Note that applications are typically due by the end of March for the following academic year.

Students interested in concentrating in preventive medicine and public health should contact the career advisor, Dr. George Rutherford, at [george.rutherford@ucsf.edu](mailto:george.rutherford@ucsf.edu) or (415) 476-5781. Basic information is available at <http://profiles.ucsf.edu/george.rutherford> and <http://meded.ucsf.edu/ume/career-information-general-preventive-medicine-and-public-health>.

**For more information:**

*Slide sets on public health*

American College of Preventive Medicine, Medical Student Section

(<http://www.acpm.org/page/mss>) and the Careers in Preventive Medicine slide set on that site.

*Useful links:*

American Board of Preventive Medicine (<http://www.abprevmed>)

American College of Preventive Medicine (<http://www.acpm.org>)

American Public Health Association (<http://www.apha.org>)

California Department of Public Health (<http://www.cdph.ca.gov/Pages/default.aspx>)

Centers for Disease Control and Prevention (<http://www.cdc.gov>)

San Francisco Department of Public Health (<http://www.dph.sf.ca.us/>)

United States Public Health Service (<http://www.usphs.gov>)

University of California, Berkeley School of Public Health (<http://sph.berkeley.edu>)

World Health Organization)

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