FAQs: Frequently asked questions about the Master's Degree Program in Clinical and Epidemiologic Research

If you are considering a career where you conduct research in order to better understand, prevent, or treat human diseases, we invite you to apply to the UCSF Master’s Degree Program in Clinical and Epidemiologic Research.

What is Clinical Research?
Clinical research is defined broadly as any health-related research involving human beings. This includes terms such as epidemiologic, patient-oriented, translational, comparative effectiveness, behavioral, outcomes, or health services research. Clinical research aims to improve human health by identifying strategies to prevent disease and improve care for patients with diagnosed illnesses. Clinical researchers usually define an area of focus with respect to diseases (examples include breast cancer, heart disease, HIV, or malaria) and affected populations (examples include research focusing on children, older adults, minority populations, or urban communities). Researchers focus on many different influences on health including genetic and physiologic risk factors, individual-level behavior, social and environmental determinants, health care access and quality, drugs and devices. The basic methods that clinical researchers use in their work are those of epidemiology, experimental study design, and biostatistics.

Of note, clinical research is typically not primarily performed in a basic science laboratory via characterization of genes, molecules and cells. Rather, it is performed with individual humans or groups of humans as the unit of observation; computers and software are the major technological tools. The products of basic science laboratories are often used as measurements in clinical research but the initial identification of a gene or molecule is typically in the purview of basic science rather than clinical research. Some recent examples of clinical research studies completed in the UCSF Master’s Degree Program in Clinical Research include:

• Role of breastfeeding in preventing childhood obesity among Latina women;
• Impact of under-prescription of medications in the management of refractory high blood pressure; and
• Influence of HIV disease severity on the occurrence of heart disease

Why pursue a Master’s Degree in Clinical and Epidemiologic Research at UCSF?
There are at least four major strengths that distinguish the UCSF Master’s Degree Program:

• Faculty interaction: A major strength of the UCSF program is the close interaction students have with faculty. Each course features weekly small group opportunities where between 5 and 15 students meet with a faculty member for in-depth discussion. All of the faculty are practicing clinical researchers and thus able to provide both deep theoretical and practical expertise.
• Variety in course work: In addition to basic and advanced instruction in epidemiologic and biostatistical methods, students are able to take courses in qualitative research, molecular methods in clinical research, social epidemiology and health disparities, and decision and cost-effectiveness analysis. A focused track in implementation science is also available for students who desire to learn the methods of how to translate effective interventions into everyday public health or clinical practice.
• Student diversity: Students originate from a variety of educational and cultural backgrounds. Because the coursework is approachable by anyone with a strong undergraduate background, our students range from those who are recent college graduates to clinicians who have trained as doctors, nurses, dentists, or pharmacists. This diversity provides the opportunity to work with the types of individuals who will typically be part of one’s research team in the future. Indeed, the chance to train at UCSF’s renowned health sciences campus, alongside clinician-investigators, creates an incomparable environment to learn the methods of clinical research. Finally, a growing number of international students lends a multi-national flavor.
• Hands on research experience: A key educational philosophy of our program is that students will learn most efficiently and deeply if coursework is done in parallel with hands on practical application. As such, in addition to passing coursework, a requirement to finish the Master’s Program is the completion of a novel clinical research project, conducted under the mentorship of a UCSF faculty member. This is an important distinction between our program, which is a graduate program requiring original research, and an M.P.H. program, which is professional degree program which typically does not require performance of new research.
What is the typical timeline and cost for the Master’s Program?
The Master’s Program is a minimum two-year course of study, requiring registration in seven quarters (Summer, Fall, Winter, Spring in the first year and Fall, Winter, Spring in the second year). Students take the majority of their coursework in the first year allowing for focus on their original independent research in the second year. In addition to coursework, requirements include a comprehensive review of the literature in the scholar's field, presentation of original research at a national or international scientific meeting, and publication of a peer-reviewed scientific report in a biomedical journal. Scholars will work closely with mentors in their research fields and preceptors chosen from TICR Program faculty. Fees for 2019-20 are $28,088; they are subject to change.

What kind of student are you seeking?
We seek applicants who have at least a Bachelor’s degree and a strong interest in clinical and health research. Potentially relevant college majors include pre-medical, epidemiology, public health, population health, demography, biology, and psychology. Because of the strong emphasis on quantitative skills in clinical research, we also encourage applicants with backgrounds in fields such as statistics, mathematics, computer science, or economics who have a commitment to health-related research.

Is prior knowledge or experience in clinical research an advantage when applying?
Yes. Prior substantive knowledge or experience in a health-related field (e.g., breast cancer, HIV, substance abuse, or exercise promotion), obtained from formal education, volunteering or employment, can help in identify a research area of interest and demonstrate commitment to health research. As such, preference during the admissions process will be given to scholars who have demonstrated knowledge or experience in some aspect of a health-related field (e.g., clinical practice, public health, health promotion, or research) by virtue of either possession of a graduate or professional doctoral degree (MD, DDS, PharmD, PhD or international equivalent), being currently enrolled in such a program, or relevant work or volunteer experience. This prior knowledge or experience is preferred because, as noted above, Master’s students must perform original research in a subject matter area of their choosing to fulfill graduation requirements.

What are the admissions requirements and how do I apply?
We require a Bachelor’s degree (BA/BS) from an accredited institution and an equivalent minimum 3.0 (B) GPA or better. As noted above, preference will be given to students who have demonstrated knowledge or experience in some aspect of a health-related field. We ask for three letters of recommendation and an essay that reflects your personal experiences, career goals, and reasons for choosing this degree program. The essay serves as an example of your writing skills and allows us to assess whether our program is a good fit given your interests and goals. Some applicants will also be asked to participate in an interview with an Admissions Committee member. Final acceptance is dependent upon identifying a research mentor among the UCSF faculty. Our Research Ambassador is available to work with you to match your interests to a suitable faculty member. For detailed information on applying to the program, please see the website.

What do graduates do after completing the program?
Program graduates are poised to work in a variety of research settings, including universities, public health departments, foundations, and private industry. Regardless of setting, the program strives to train individuals who will become leaders of research efforts and teams. The great majority of our graduates are employed in university settings in some aspect of clinical research. The program can be completed as a stand-alone experience, but it also provides a springboard for students considering advanced degree programs, such as an MD or PhD (e.g., the UCSF PhD Program in Epidemiology and Translational Science). Because our graduates must both present their research at national scientific meetings and publish their findings in biomedical journals, they have built academic records which should make them more competitive when applying for subsequent MD or PhD programs.

How can I learn more about the Master’s Degree Program in Clinical and Epidemiologic Research?
After you have reviewed the information on the Master’s Program website, please contact the TICR Coordinator at TICR_Coordinator@psg.ucsf.edu if you have questions about applying to the program.