Health Professions:

Public Health

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Overview of Profession:

1. Overview:
   - Public health is the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals.
   - It incorporates the interdisciplinary approaches of epidemiology, biostatistics and health services. Environmental health, community health, behavioral health, and occupational health are other important subfields.
     - Biostatistics- is the development and application of statistical reasoning and methods in addressing, analyzing, and solving problems in public health; health care; and biomedical, clinical and population-based research. Upon entering the field, positions are available in data management, pharmaceutical and clinical trials, data analysis, and academia.
     - Health Services Administration- Health policy and management is a multidisciplinary field of inquiry and practice concerned with the delivery, quality and costs of health care for individuals and populations. As health care delivery continues to evolve, professionals trained in health service administration are in high demand. Today’s managed care environment requires trained professions to focus on the study of health care systems, health care reform, health law, financial management, clinical management, and policy analysis.
     - Epidemiology- is the study of patterns of diseases and injury in human populations and the application of this science to control health problems. Epidemiologic studies focus on identifying the distribution, determinants, and frequency of disease within populations by using statistical analysis.
     - Environmental Health Sciences- Environmental health sciences represent the study of environmental factors including biological, physical and chemical factors that affect the health of a community. Environmental health is the largest component of the public health field and accounts for approximately half of its personnel and
expenditures. Environmental health is broad in scope and includes the areas of water and air quality, food safety, hazardous waste management, and radiation protection.

- **Social and Behavioral Sciences** - The social and behavioral sciences in public health address the behavioral, social and cultural factors related to individual and population health and health disparities over the life course. Research and practice in this area contributes to the development, administration and evaluation of programs and policies in public health and health services to promote and sustain healthy environments and healthy lives for individuals and populations. Graduates may enter fields that emphasize public health planning and policy development, social action and advocacy, and health promotion and disease prevention.

2. **Earnings:**
   - Epidemiologists- Median annual wage in May 2008 was $61,360.
   - Biostatisticians- Median annual wage in May 2008 was $72,610. The middle 50% earned between $52,730 and $95,170. The lowest 10% earned less than $39,740, while the highest 10% earned more than $117,190.
   - Health Service Administrator- Median annual wage for medical and health services managers in May 2008 was $80,240. The middle 50% earned between $62,170-$104,120.

3. **Job Outlook:**
   - Epidemiologists- Faster than average employment growth is projected. A heightened awareness of bioterrorism and rare but infectious diseases, such as West Nile Virus or Avian flu, should spur demand for these workers.
   - Biostatisticians- Should experience employment growth, primarily because of the growing pharmaceuticals business. As pharmaceutical companies develop new treatments and medical technologies, biostatisticians will be needed to do research and clinical trials.
   - Health Service Administrators- Employment is expected to grow 16% from 2008-2018.

4. **Employment:**
   - Epidemiologists- Can expect excellent opportunities. Many states report shortages of qualified workers for applied epidemiology positions. There is greater competition for jobs as research epidemiologists.
   - Health services administrator- About 38% worked in hospitals, and another 19% worked in offices of physicians or in nursing and residential care facilities. Many of the remainder worked in home healthcare services, Federal Government healthcare facilities, outpatient care centers, insurance carriers, and community care facilities for the elderly.
Pre-Requisites

Pre-Requisites vary significantly for MPH programs. If the concentration you want is largely science based, then the program will most likely require biological science courses. If the concentration you want isn't science-based, then the program will most likely require social science and humanities courses. It is crucial that you check the pre-requisites for each program concentration, at each school. For a list of accredited programs- ceph.org/ accredited

Application Process Timeline:

1. SOPHAS
   - The Schools of Public Health Application Service is the centralized application service utilized by many public health programs.
   - As admission requirements and specialty areas differ from school to program, it is important to thoroughly research the options available. While each school determines its own admissions criteria, requirements usually include submission of academic transcripts, letters of reference, GRE general test scores, and a personal statement addressing the candidate’s reasons for seeking entrance to a program of study in public health.
   - Since interviews are not usually part of the admissions process, it is important that an applicant’s personal statement, recommendation letters, and experiences reflect the skills that are important in the practice of public health.

2. The application cycle for public health programs varies significantly for each school. Check each schools websites or contact their admissions department to learn more about their application timeline.

3. Research each program you wish to apply to before submitting your application.
   - Admission requirements
   - Pre-requisite coursework
   - Deadlines
   - Amount and preferences for letters of recommendations

4. Consider these factors when deciding upon where to apply:
   - Degree options
   - Concentrations available
   - Location
   - Cost
   - Size
   - Licensure exam passage rates
   - Faculty interests and reputation
   - Job placement history of program graduates.
   - Talk with recent public health graduates, as well as ask public health employers about various programs’ strengths and weaknesses.
Admission Exam:

1. **Overview of Graduate Record Exam (GRE):**
   - Most U.S. Master in Public Health schools and programs require applicants to submit GRE (general) exam scores.
   - Approximately a 4 hour standardized multiple-choice computerized-based exam.
   - Scores are usually available 10-15 days after completion of the exam.
   - No GRE scores older than five years will be accepted.
   - **Sections**
     - Verbal Reasoning - Measures your ability to analyze and evaluate written material and synthesize information obtained from it, analyze relationships among component parts of sentences and recognize relationships among words and concepts.
     - Quantitative Reasoning - Measures problem-solving ability, focusing on basic concepts of arithmetic, algebra, geometry and data analysis.
     - Analytical Writing - Measures critical thinking and analytical writing skills, specifically your ability to articulate and support complex ideas clearly and effectively.
   - **Score:**
     - The Verbal and Quantitative reasoning sections are out of 800 points, for a maximum score of 1600.
     - The Analytical writing section is out of 6.0
     - The maximum score is a 1600 with a 6.0 AWA.

2. **When should students take the GRE?:**
   - You should take the GRE well in advance of applying to MPH school/programs but definitely at least one year prior to your intended start date.
   - Students should take the GRE when they can do their best.
     - If they can be preparing for the GRE and be taking courses, and do well in both, then they should do that.
     - If the student will compromise their grades and/or score by doing both at the same time, the student should prepare for the GRE during the summer or after they have graduated.

3. **Dates for exam:**
   - Offered daily

**Additional Requirements:**

- None
Overview of Public Health Programs:

1. Overview:
   o Schools of public health offer a variety of degrees, which generally fall into two categories: professional or academic. The two major postgraduate professional degrees are the Master of Public Health (MPH) or the Master of Science in Public Health (MSPH). Doctoral studies in this field include Doctor of Public Health (DrPH) and Doctor of Philosophy (PhD) in a sub-specialty of greater Public Health disciplines. DrPH is regarded as a professional leadership degree and PhD is more an academic degree.
     ▪ MPH degree focuses on public health practice, as opposed to research or teaching.
   o Public Health programs last 2 academic years.
   o There are 40 accredited Public Health Schools in the United States, and 4 in California
     ▪ UC Berkeley, SDSU, Loma Linda, and UCLA.
   o There are many more public health programs at universities around the country, including California programs at UC Davis, USC, San Jose State, and Cal State Fresno.

2. Education:
   o The typical MPH degree is designed to expose candidates to 10 core areas of public health:
     ▪ Biostatistics
     ▪ Epidemiology
     ▪ Health Services Administration
     ▪ Health Education
     ▪ Behavioral Science
     ▪ Environmental Health
     ▪ Maternal and child health
     ▪ Public health nutrition
     ▪ Public health practice
     ▪ Public health administration and policy
   o In addition to these core areas, MPH degrees may also intersect with fields such as urban planning, policy, advocacy, community organizing, communications, integrated health, social work and social sustainability.

Important Websites:

- Explore Health Careers
- Council on Education for Public Health-ceph.org
- Association of Schools of Public Health-http://www.aspph.org/
- Applying to Public Health Programs-www.sophas.org
- Masters in Public Health -http://www.mastersinpublichealth.net/
- Public Health Graduate Programs-http://www.gradschools.com/search-programs/public-health
- What is Public Health-http://www.whatispublichealth.org/
- Careers in Public Health
- Public Health Degree Resource Center
- Salaries for Public Health Careers
- MD / MPH List of Programs