

THE EPIDEMIC INTELLIGENCE SERVICE IN ACTION



EIS

Epidemic Intelligence Service



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES • Public Health Service





The worn sole of an epidemiologist's shoe superimposed over a world globe best illustrates the role of an EIS Officer:

To provide quality, comprehensive epidemiologic assistance in the investigation and prevention of public health problems wherever and whenever they arise.

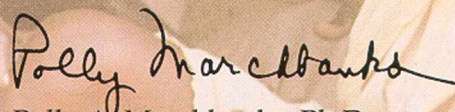


To Prospective Applicants

I am pleased that you are interested in learning more about the Epidemic Intelligence Service (EIS) Program. Since the inception of the program in 1951, the EIS has played a key role in conducting epidemiologic investigations in the United States and throughout the world. Today, EIS Officers continue to be at the forefront in implementing the Centers for Disease Control and Prevention's (CDC) mission of disease and injury prevention and health promotion.

This brochure, which serves as an introduction and overview, provides answers to frequently asked questions about the CDC and EIS. I also encourage you to learn about the EIS Program by talking to as many graduates and/or current Officers as possible. While all Officers share a common core of knowledge through the completion of various training experiences, the variety of EIS assignments and the breadth of health concerns covered at CDC provide a diverse and stimulating environment for learning applied epidemiology.

I hope this information heightens your interest in CDC and EIS. On behalf of the EIS Program, I invite you to contact us for application materials or if you have further questions.



Polly A. Marchbanks, Ph.D.
Chief, EIS Program
Epidemiology Program Office
Division of Training

was established in 1951 to

- 1) help CDC implement its mission to prevent and control communicable diseases;
- 2) increase the number of field-trained epidemiologists in the United States; and
- 3) provide services to state and local health departments and improve disease surveillance nationally.

Today, the scope of EIS training opportunities has broadened to include such diverse areas as acute and chronic infectious and non-infectious diseases, nutrition, reproductive health, environmental health, injuries (intentional and unintentional), behavioral risk factors, maternal and child health, and occupational safety and health.



WHAT IS THE EPIDEMIC INTELLIGENCE SERVICE?

Headquartered at the national Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, the Epidemic Intelligence Service (EIS) is a unique 2-year, post-graduate program of service and on-the-job training for health professionals interested in the practice of epidemiology. Working under the supervision of epidemiologists at CDC or in state and local health departments, EIS Officers develop skills in applied epidemiology to address vital public health issues. They are often called upon to investigate epidemics, conduct epidemiologic studies, teach, travel, and present and publish their work.

WHO ARE EIS OFFICERS?

Many incoming EIS Officers are physicians, whose specialties include internal medicine, pediatrics, family practice, preventive medicine, occupational medicine, surgery, and obstetrics and gynecology. To be eligible for EIS, physicians must complete at least one year of clinical training. However, the level of experience of the physicians selected can range as widely as from 1 year of postgraduate training (internship) to board certification in a variety of specialties.

Each EIS class also includes many other health professionals who contribute unique skills and expertise—including veterinarians, nurses, and dentists who also have a master's degree in public health or equivalent; and doctoral-level epidemiologists, statisticians, and social/behavioral scientists. An increasing number of persons with a doctoral degree in epidemiology or public health are choosing to augment their theoretical knowledge with the kind of practical experience that EIS can offer. For all participants, EIS provides an exciting entry into the field of public health and applied epidemiology. **The EIS Program also makes special efforts to identify and recruit highly qualified women and members of minority groups.** Since 1981, women have comprised over 30% of the incoming classes of EIS Officers, and approximately 50% of the current class are women. Moreover, since 1979, approximately 12% of entering EIS Officers self-identified as members of minority groups. Currently, over 20% of all Officers are members of ethnic/racial minority groups.

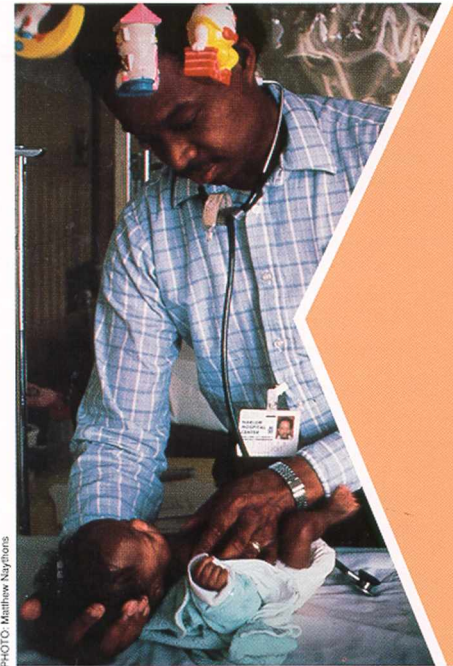


PHOTO: Matthew Nuythons



PHOTO: Matthew Nuythons



WHAT DO EIS OFFICERS DO?

Commonly known as CDC's "Disease Detectives," all EIS Officers perform the following training activities during their 2-year tour of duty, which involve the following:

- Participation in the field investigation of an acute health problem;
- Analysis of epidemiologic data bases;
- Design, implementation, and evaluation of surveillance systems;
- Preparation of scientific papers;
- Delivery of presentations at annual EIS Conferences, other national health conferences, and weekly professional staff seminars; and
- Response to public inquiries.

Some Officers also participate in teaching or training activities, as well as international assignments. All EIS Officers routinely provide epidemiologic assistance in approximately 500 investigations annually, involving health problems such as

- AIDS
- Toxic shock syndrome
- Natural disasters
- Violence and injuries
- Breast and cervical cancer
- Multi drug-resistant tuberculosis
- Occupational health hazards

EIS GRADUATES: WHAT ARE THEY DOING NOW?

Over 2,000 EIS graduates are currently dispersed throughout the world, working in a variety of positions and health settings. Many now serve as public health professionals in local, state, federal, national, and international health agencies. Others serve as teachers of preventive medicine, clinicians in academic settings, or private practitioners in their communities.



PHOTO: Matthew Neighbors

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APPLIED EPIDEMIOLOGIC METHODS

EIS Officers acquire a broad background in epidemiology and statistics through the analysis of public health problems and the evaluation and improvement of public health programs. Many are exposed to a wide variety of epidemiologic functions through their assignment to state and local health departments. Approximately 25% of entering EIS Officers are assigned to a supervising state or territorial epidemiologist through the Division of Field Epidemiology (DFE). Other EIS Officers are assigned to centers, institutes, and program offices (CIOs) within CDC that focus on specific health issues. Whatever their assignment, all EIS Officers gain experience in a variety of areas, insuring uniform competencies in applied epidemiology.

EPIDEMIOLOGIC APPLICATIONS OF DEMOGRAPHY

EIS Officers participate in tracking the progress toward achieving the health objectives of the nation through the collection and analysis of data from multiple sources. For example, EIS Officers have examined regional variations in the occurrence of heart disease, the role of alcohol in heart disease among women, and asthma mortality by occupational group. Recent studies have assessed geographic variation and trends in the morbidity and mortality of selected chronic diseases, occupational differences between at-work and total injury rates, and standard clinical tests to identify individuals at risk for kidney disease.

EPIDEMIOLOGY OF CHRONIC DISEASE

EIS Officers address a range of assignments in the area of chronic disease epidemiology. Examples include 1) the analysis of surveillance and survey data to describe trends in chronic diseases and their associated risk factors; 2) demonstration projects to increase breast and cervical-cancer screening among high-risk groups; 3) community-wide public health interventions to prevent cardiovascular disease; 4) evaluation of legislative and health policies designed to reduce smoking; and 5) improvement of school health education delivered to teenagers at-risk.

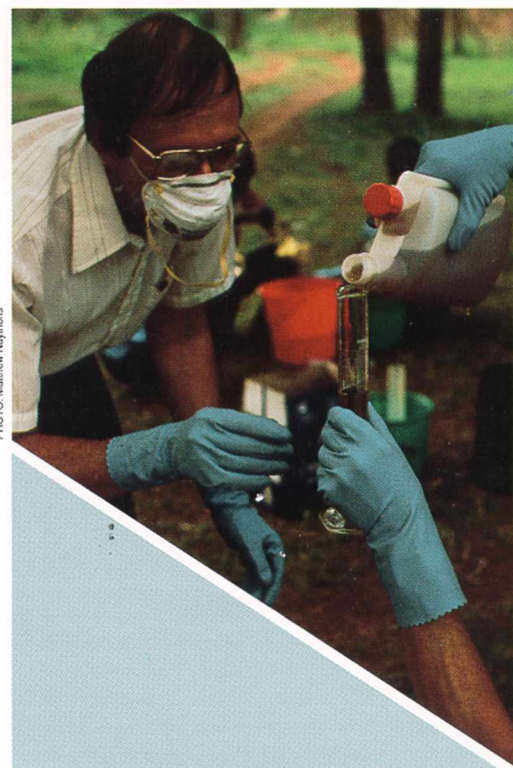


PHOTO: Matthew Nuytens

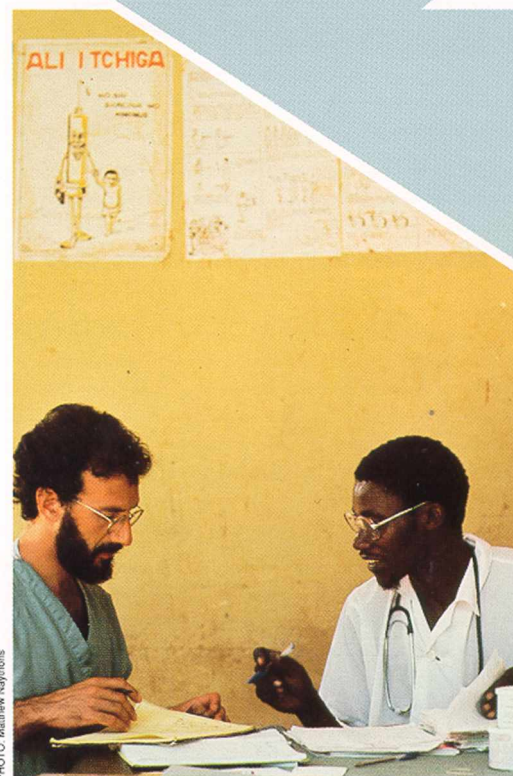


PHOTO: Matthew Nuytens

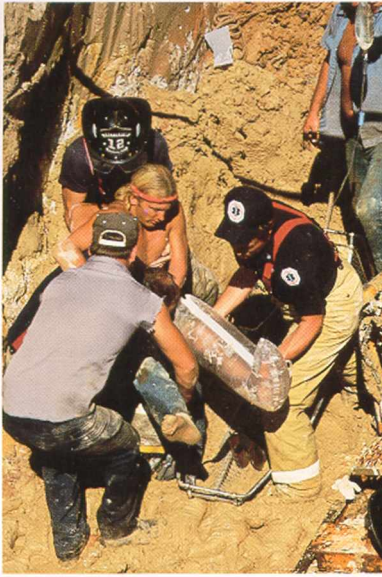


PHOTO: Matthew Nagel/Corbis

EPIDEMIOLOGY OF ENVIRONMENTAL HEALTH

EIS Officers are involved in providing a scientific basis for establishing policy in environmental health, one of the fastest growing fields in public health today. The Division of Environmental Hazards and Health Effects develops methodologies to prevent illnesses due to such environmental factors as indoor air pollution, exposure to toxic chemicals, and earthquakes. The health effects of radon in homes and lead poisoning prevention are other important areas of environmental health concern.

EPIDEMIOLOGY OF INFECTIOUS DISEASES

EIS Officers work with a range of infectious diseases. Associated activities involve identifying, classifying, and investigating such important public health problems as Legionnaires' disease, other bacterial and mycotic diseases, parasitic diseases, vector-borne diseases, enteric diseases, human immunodeficiency virus (HIV), toxic-shock syndrome, hospital infections, and Lyme disease. EIS Officers may also work with infectious-disease problems surrounding the delivery of public health services to urban populations, including the investigation of measles and pertussis outbreaks in metropolitan areas, nosocomial tuberculosis, and epidemics of sexually transmitted disease associated with the exchange of sex for drugs.

EPIDEMIOLOGY OF INTENTIONAL AND UNINTENTIONAL INJURIES

EIS Officers investigate the etiology of intentional (e.g., suicide, homicide, domestic violence and child abuse) and unintentional (e.g., bicycle, automobile, recreational-vehicle) injuries. They also work to improve the treatment of injured persons and reduce disability and health care costs. Injury Prevention Research Centers established at CDC are conducting interdisciplinary research, training students and practitioners, and supporting programs in injury control.



How much do your children know about AIDS?

Do you talk to them about it? Are you sure it's enough? They need to be learning about health in school. Healthy lifestyles can be learned. Are they being taught?

Now, more than ever, your children need an understanding of what it takes to be healthy.

With your help, schools can play an important role. If you'd like to know how you as a parent can be more involved in your child's curriculum, call 1-800-342-AIDS for information. If you are hearing impaired, call 1-800-AIDS-TV.

AMERICA
RESPONDS
TO AIDS

EPIDEMIOLOGY OF OCCUPATIONAL HEALTH AND SAFETY ISSUES

EIS Officers conduct epidemiologic and clinical investigations of disease and injury caused by occupational exposures. These assignments involve respiratory disease studies, safety research, and occupational surveillance and hazard evaluations. Occupational health assignments are available in state health departments and CDC offices in Cincinnati, Ohio, and Morgantown, West Virginia. Depending on the assignment, Officers benefit from a broad-based experience with a range of occupational health problems, or may focus in one area—such as occupational respiratory disease or fatal occupational injuries.

EPIDEMIOLOGY OF REPRODUCTIVE HEALTH

EIS Officers have the opportunity in the field of reproductive health to focus on areas such as birth defects and developmental disabilities, birth spacing and family planning, and child-survival initiatives. They also have determined the safety and efficacy of contraceptives, risk factors for infertility and ectopic pregnancy, and documented life-style factors associated with low birth weight and pre-term delivery.

EPIDEMIOLOGIC APPLICATIONS TO INTERNATIONAL HEALTH

EIS Officers can avail themselves of international health opportunities to increase the capacity of developing countries to implement basic public health programs and expand their public health infrastructure to reduce morbidity and mortality. Program assignments have included HIV/STD prevention, birth spacing and family planning, child survival initiatives, and environmental disaster assessments.

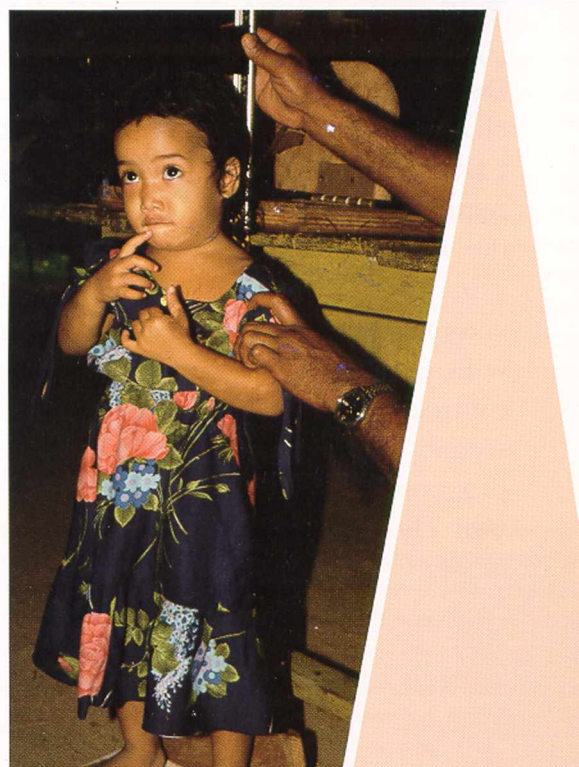


PHOTO: Matthew Noythors

OTHER ASSIGNMENT OPPORTUNITIES

EIS Officers have been assigned to other federal agencies such as the Agency for Toxic Substances and Disease Registry, the Food and Drug Administration, the Health Care Financing Administration, the National Institutes of Health, and the Substance Abuse and Mental Health Services Administration.

THE PREVENTIVE MEDICINE RESIDENCY AND EIS

During the first year of EIS, physicians and veterinarians are eligible to apply to the Preventive Medicine Residency (PMR). CDC's PMR is a 2-year fully accredited program, fulfilling the requirements of the American Board of Preventive Medicine for the 1 year practicum phase of supervised training and field experience. The program is designed to prepare physicians and veterinarians for careers in preventive medicine and public health, with a special emphasis on epidemiology and community disease control. Approximately 15 Officers are selected each year. The second year of EIS may serve as the first year of the PMR, with program completion occurring at the conclusion of a third extension year. Those PMR's without an MPH may apply for CDC-sponsored academic training at the conclusion of their practicum experience.

EPIDEMIOLOGY ELECTIVE FOR SENIOR MEDICAL AND VETERINARY STUDENTS

Some EIS Officers have participated in the Epidemiology Elective Program offered by the Epidemiology Program Office. The elective program offers medical and veterinary students an introduction to preventive medicine and public health, especially as these areas relate to techniques of surveillance and applied epidemiology. Elective students are provided with practical experience in the field of epidemiology through participation in the investigation of a broad range of public health problems occurring throughout the United States; they work under the supervision of EIS Officers or career staff.

Interested students may request information or an application from the EIS Program, whose address and telephone number appear on the EIS Application Information insert.

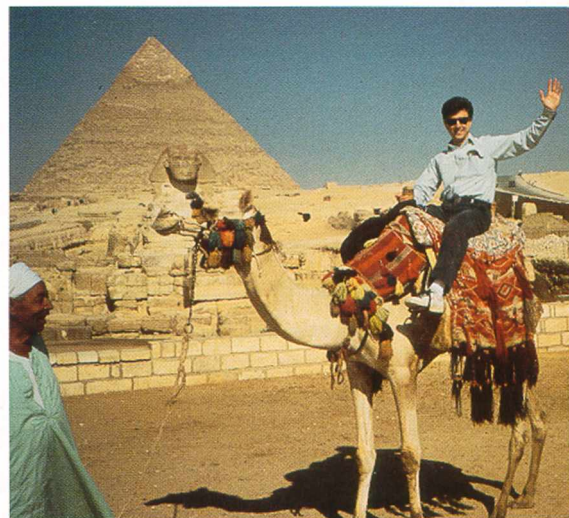


PHOTO: Matthew Nuytens

ELIGIBILITY REQUIREMENTS

Health professionals who meet one of the following qualifications, and have a **strong interest** in applied epidemiology, are eligible to apply to the EIS:

- Physicians with at least 1 year of clinical training.
- PhD, DrPH, or other doctoral-degree recipients in health-related fields such as epidemiology, biostatistics, and the social, behavioral, and nutritional sciences.
- Nurses, dentists, and veterinarians with a Master of Public Health (MPH) or equivalent degree.

STIPEND AND LEAVE BENEFITS

Successful candidates join the EIS through the CDC/ATSDR Fellowship Program. As EIS Officers, both U.S. and non-U.S. citizens are accepted for a 2-year fellowship and are not federal employees. Non-U.S. citizens must also meet the visa requirements for this program. EIS Officers receive a stipend of \$57,000 per year. Leave benefits include 13 workdays of vacation leave per year and sick leave as needed.

HOW TO APPLY

The application deadline for the EIS Program is **October 1st of each year**. To be considered for the EIS, candidates must meet the eligibility requirements and demonstrate a need for applied epidemiology training. After this review, personal interviews may be requested. In this case, candidates will be informed by letter and must travel to Atlanta at their own expense to participate in a series of selection interviews to assess 1) interpersonal and communication skills, 2) a commitment to applied epidemiology and public health practice, and 3) possible assignments of interest. All interviews must be scheduled by November 15th of each year for

persons who wish to enter the program the following summer. Decisions are made in December of each year, and applicants are notified in early January. Each EIS class commences at CDC in early July, with an intensive 3-week orientation and training program. For an application and information, contact

Epidemiology Program Office
MS-C08
Centers for Disease Control and Prevention
1600 Clifton Road, NE
Atlanta, Georgia 30333
Attn: Chief, EIS Program
(404) 639-3588

The Centers for Disease Control and Prevention maintains a smoke-free environment. All applicants receive equal consideration without regard to race, religion, color, national origin, gender, political affiliation, age (with authorized exceptions), or any other nonmerit factors.