



## **The American University of Armenia Health Sciences Program 1995**

The American University of Armenia Health Sciences Program represents an integrated effort to develop local expertise in managing health programs, assessing the health needs of the people of Armenia and translating that knowledge into improved health by designing, implementing, and evaluating programs to meet those needs.

### **Goals**

The goals of the integrated Health Sciences Program are to

- 1) train and develop expertise in the disciplines of public health and management of health care facilities among local health professionals;
- 2) conduct applied research and provide technical assistance to the Ministry of Health and international donor organizations in addressing the health and health services concerns of the population;
- 3) help to develop the public health practice and research infrastructure of Armenia; and
- 4) provide opportunities for collaborative research and exchange of information among public health colleagues world-wide.

### **Affiliation**

Recognizing the importance of promoting the public's health world-wide and the need for dissemination of expertise, the world-renowned Johns Hopkins University School of Hygiene & Public Health entered into an affiliation agreement with the American University of Armenia to design, manage, and evaluate the program. The AUA Health Sciences program will be directed by Dr. Haroutune K. Armenian, MD, DrPH, a Professor of Epidemiology and Director of the School's MPH Program. Dr. Armenian's personal and professional commitment to this effort makes him ideally suited to this position.

### **The Educational Mission**

The HSP is a two-tiered, modular educational program. The first tier is a one-year certificate program in public health. As described in detail below, the first tier provides a practical, conceptual, and theoretical grounding in the core disciplines of public health. The second year of the program will be for the completion of the master's degree. The second tier will consist of advanced study in one or more of the core areas integrated with practical experience in applying the acquired knowledge and skills in the student's area of interest. The second year will provide students an opportunity to apply their knowledge and skills to problems of importance to Armenia in a supervised setting, thus benefitting both the students and the health of the population.

### **The Certificate Program Curriculum**

The certificate program curriculum is divided into three modules. Within each module are several units. Each unit and module are integrated with and build upon one another, but are treated as separate academic courses for administrative purposes:

#### **Module I: Public Health Problem Solving**

- Unit 1: Introduction & General Principles
- Unit 2: Biostatistics, Demography and Information Systems
- Unit 3: Social & Behavioral Sciences in Public Health

#### **Module II: Techniques of Problem Investigation & Evaluation**

- Unit 1: Epidemiology
- Unit 2: Problem Investigation in Environmental Health
- Unit 3: Economics & Finance

#### **Module III: Program Planning & Implementation**

- Unit 1: Health Services Management
- Unit 2: Program Planning
- Unit 3: Project Development & Evaluation

### **Organizing Paradigm**

The organizing principle for the curriculum is a six-step public health problem solving paradigm for professional practice. In addition to providing a conceptual framework for tackling a wide variety of public health problems and a framework for integrating a number of other public health paradigms, the problem solving paradigm emphasizes the need for critical thinking and analytic reasoning skills within a rational context which clarifies the need and role of each of the core public health disciplines [ biostatistics/demography, epidemiology, behavioral sciences, environmental & biological factors, health finance & management] and a number of related skills such as computer literacy, effective verbal and oral communication, working in multidisciplinary groups and interacting with the public at-large as well as with the private and governmental sectors.

The six steps of the paradigm are: Problem Definition; Measuring Magnitude; Understanding Key Determinants; Developing Prevention & Intervention Strategies; Setting Priorities & Policies; and Implementation & Evaluation. The content of the modules is sequenced to provide the core skills and knowledge associated with each of these steps.

The first unit of module one (Introduction & General Principles) is designed to 1) provide students with the broad conceptual framework for the entire AUA Health Sciences Program; 2) define the domains of public health; 3) explicate the problem solving paradigm using a variety of specific examples; 4) demonstrate the relevance of the paradigm to professional practice; 5) develop basic group process and multidisciplinary team building skills and 6) provide an overview of the types of skills and disciplines that bear on a public health problem and at which

point in the problem solving process the various disciplines contribute most.

With the conceptual framework in place, students will then be exposed to the core disciplines and key paradigms in the sequence in which they bear importance in the problem solving paradigm. Part of unit 1 and Unit 2 provide the requisite skills and paradigms for critically assessing the existence of a problem and descriptively assessing its magnitude. Unit 3 addresses one of the considerations in seeking to understand the key determinants of a problem: socio-cultural factors.

Module II continues with a detailed unit addressing analytic and quantitative epidemiologic skills. An examination of the environmental and biological determinants of health follows. With an understanding of the "disease" processes and magnitude in hand, the last unit of Module II addresses the practical considerations in selecting from among the various options which have been identified: economics and financing.

Module III concludes the paradigm with the remaining issues of program planning, implementation, and evaluation. In this way, the broad overview of knowledge, skills, and application considerations raised during the initial unit in Module I are expanded and developed in greater depth and breadth. Within each of the disciplines, a number of other conceptual paradigms are developed and related to the overarching problem solving paradigm. The use of the paradigm aids integration and application of the various components into professional practice even before completing the entire program.

#### **Practical Application Training**

Education and training alone is not sufficient to ensure that positive impact will be made on the health of the people of Armenia by these students. The students must have the opportunity to integrate their newly acquired knowledge and skills by meeting real world needs under real world conditions. The practice-oriented nature of the second year will provide an opportunity for students to conduct health and health services research which has immediate impact on the health of the people of Armenia in a setting which incorporates supervision by and collaboration with senior public health professionals. This objective is most easily accomplished through an organized center for health services research and development.

Given the recent systemic changes, an opportunity exists to provide those entrusted with ensuring the health of the public with the resources to effectively guide the development of health policy in the coming years. The professional staff and students of the AUA health sciences program will be uniquely situated to support the information and technical needs of the Ministry of Health and various donor organizations while advancing its own educational objectives. The center will be run on a project-by-project basis: each project will have an identifiable team of researchers. All projects will be conducted within the training mission of the university and with regard to the programmatic needs of the country.

#### **A Training Center for Health Services Research & Development**

The center will not duplicate any existing services, but rather offer its expertise as a resource to

support and facilitate the existing public health infrastructure. The guiding principles of the center will be to:

- 1) provide supervised training for students enrolled in the AUA Health Sciences Program;
- 2) serve as a venue for linkages between the Ministry of Health, donor agencies, and the expertise of the program's faculty; and
- 3) support programmatic development of health services in conjunction with the Ministry of Health.

Anticipated areas of concentration for the Center include primary health care, environmental health, and maternal and child health. Activities can include epidemiologic assessment of special populations, program planning and evaluation, and basic health services research and evaluation.