ANALYSIS IN BRIEF

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

January 2002, Vol. 2, No. 1

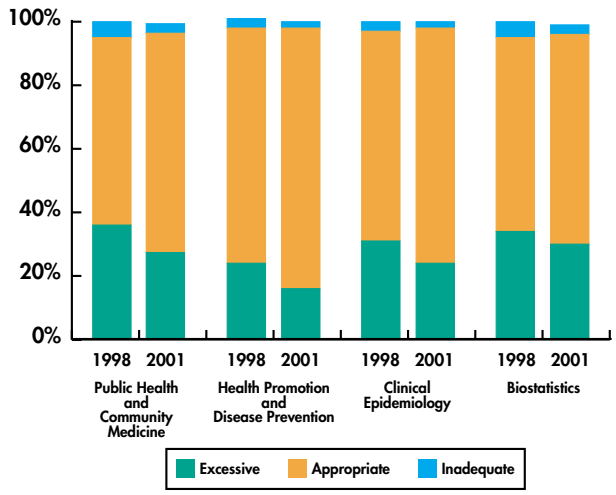
Trends in Medical School Graduates' Perceptions of Instruction in Population-Based Medicine

Medical educators and public health experts have been calling on medical schools to enhance their teaching of population-based medicine for the greater part of the past decade. In June 1998, the Association of American Medical Colleges (AAMC) emphasized the importance of integrating a population health perspective within medical school curricula with its publication of Report II of the Medical Schools Objectives Project (MSOP). The expert panel convened to produce MSOP II specified educational objectives that each medical student should demonstrate to the satisfaction of his or her faculty in relation to population-based medicine:

- The ability to define and describe a population, its demography, cultural and socioeconomic constitution, circumstances of living, and health status, accompanied by the ability to understand how to gather health information about a specific population;
- An understanding of the impact of local systems of health care (e.g., their organization, financing, and management) on delivering care to specific patients; and
- The ability to incorporate principles of disease prevention and behavior change appropriate for specific populations of patients within a community.

Figure 1

Medical School Graduates' Perceptions of Instruction Time Devoted to Population-Based Medicine 1998 and 2001



Source: 1998-2001 AAMC Medical School Graduation Questionnaire

The report also identified three principles that schools should uphold as they design educational activities. These principles are: 1) teaching students the practical fundamentals of the core disciplines that underpin the effective application of population health, 2) giving students experiences in studying real populations, and 3) integrating such instruction and learning into all parts of the medical school curriculum.

As a component in the assessment of whether these suggested objectives and principles are being incorporated into medical education, AAMC staff analyzed information from the AAMC's Medical School Graduation Questionnaire (GQ). Since 1978, the AAMC has annually administered the GQ to graduating medical students at all U.S. allopathic medical schools, directly gathering information

- Medical educators and public health experts have been calling on medical schools to enhance their teaching of population-based medicine for the greater part of the past decade.
- MSOP II defines a population health perspective as one that encompasses the ability to assess the health needs of a specific population; implement and evaluate interventions to improve the health of that population; and provide care for individual patients in the context of the culture, health status, and health needs of the populations of which that patient is a member.
- The AAMC is conducting analyses of graduating medical students' perceptions of their instruction in population-based medicine topics to establish if the tenets of population medicine are being incorporated into medical school curricula.

regarding their medical school experiences and career plans. With a consistent, sustained response rate of more than 90% (>14,000 students), the GQ is one tool for monitoring the implementation and effectiveness of curricular changes among medical schools across the U.S.

The GQ asks of specific instruction areas: Do you believe that the time devoted to your instruction in the following areas was inadequate, appropriate, or excessive? Among the GQ's topic areas is a subset related to population-based medicine, including the following subject matter: public health and community medicine, community health and social services, health promotion and disease prevention, screening for diseases, infectious disease prevention, clinical epidemiology, and biostatistics. The survey data from students graduating in 1998, 1999, 2000, and 2001 indicate that an increasing percentage of students feel that the instruction time spent on such topics is "appropriate." A corresponding declining number of students who rate such instruction time as "inadequate" mirrors this trend. (See figure 1.)

In 1998, 59% of students felt that the time devoted to instruction on public health and community medicine in general was appropriate. This percentage increased to 62% in 1999, 63% in 2000, and 69% in 2001 (a 10% increase over the four-year interval). Similarly, in 1998, 51% of students felt that instruction time devoted to the role of community health and social service agencies was appropriate. This percentage increased to 55% in 1999, remained at 55% in 2000, and increased to 61% in 2001 (a 10% increase over four years).

When asked to rate the adequacy of time devoted to instruction in health promotion and disease prevention, 74% of students rated it appropriate in 1998. That number grew to 78% in 1999, 79% in 2000, and 82% in 2001 (an 8% increase over four years). Instruction time devoted to screening for diseases was rated as appropriate by 81% of students in 1998. That percentage increased to 85% in 1999, 88% in 2000, and 90% in 2001 (a 9% increase over four years). Finally, in 1998, 80% of GQ respondents felt that the time devoted to instruction in infectious disease prevention was appropriate. That percentage increased to 84% in 1999, 85% in 2000, and 88% in 2001 (an 8% increase over four years).

AAMC analysis shows a similar increase in the appropriateness of instruction time devoted to both clinical epidemiology and biostatistics as rated by graduating students. In the area of clinical epidemiology, 66% of students rated their instruction time as appropriate in 1998. That percentage increased to 70% in 1999, remained at 70% in 2000, and rose to 74% in 2001 (an 8% increase over four years). In 1998, 61% of students felt that the time devoted to instruction in biostatistics was appropriate. That percentage increased to 63% in 1999, fell slightly to 62% in 2000, and increased to 66% in 2001 (a 5% overall increase).

These preliminary data suggest that our nation's medical schools are devoting more time and effort to population health topics, as increased ratings of the appropriateness of instruction over the four-year period are noteworthy. It follows that this enhancement in students' assessments of their instruction in population health topics should correspond with additional faculty effort in teaching these areas. The AAMC has undertaken several steps to assist with this additional effort. As part of a larger initiative to enhance collaboration between public health and clinical medicine, the AAMC has entered into a cooperative agreement with the Centers for Disease Control and Prevention. This agreement, initiated in October 2000, has facilitated work on a project to develop a "regional public health education program."

Given that the GQ utilizes information solely based upon the *perceptions* of graduating medical students, the determination of a causal relationship with additional or enhanced population health instruction warrants further study. Additional resources for such study include CurrMIT, the AAMC's Curriculum Management and Information Tool, which can establish the distribution of courses related to population health implemented since the publication of MSOP II. Analysis of the AAMC Faculty Roster System can serve to further determine if additional basic science or clinical departments and/or faculty related to population health have been added to AAMC member institutions.

Author: Raj Sabharwal, MPH, AAMC Division of Medical Education, (202) 828-0960, rsabharwal@aamc.org.