In the mid-1970's there has been phenomenal growth in the number of curricular programs offered and subsequent enrollments of students in the health professions. At the same time, there is a growing discrepancy between the quantity of these programs and the quality of the health care delivery system in the United States. Policy in the health professions is overly concerned with the number game, while the quality of training programs has gone unchallenged. Medical faculty, like others in higher education, generally receive no training as teachers during their graduate programs, and are rewarded primarily for their research productivity and professional stature. We must now focus primarily on the clarification of the goals of the country's health care program and the immediate objectives of health training programs. This policymaking process should include practitioners, professors, politicians, and the public. At the moment, too much policy is being made and too little evaluation undertaken in health care education, management, and delivery. (MSE)
POLICY AND EVALUATION IN THE HEALTH PROFESSIONS

Clare Rose and Glenn F. Hyre
Evaluation and Training Institute

Invited address presented at the Aspen Biosciences Communication Seminars of 1975, Aspen; Colorado, October 6-8.

During the last several years, there has been a phenomenal growth in the number of curricular programs offered and subsequent enrollments of students in the health professions. At the present time, there are 11 medical schools and 59 dental schools in the United States enrolling thousands of students, and additional schools are in various stages of planning and development. Training programs for registered nurses alone number over 1,075.

Add to these figures the large numbers of paramedical and medical and dental auxiliary personnel programs and the numerous public health programs enrolling individuals who want to become epidemiologists, nutritionists, and hospital administrators, and the numbers of health care persons being trained by our schools is staggering.

Unfortunately, at the same time, there is a growing discrepancy between the quantity of these programs and the quality of the health care delivery system in the United States. Despite the fact that over $100 billion was spent on personal health care in 1975, mortality rates in the United States are still excessively high. Certainly we have made great progress in many areas, but the quality of our health professionals and the evaluation of their educational programs, still remain the most neglected areas of health care policy.
The Sickness

Policy in the health professions is overly concerned with a number's game -- how many physicians and dentists are actively practicing in the U.S. today? How many will be needed in year such and such? How many medical and dental schools are currently in existence? How many more will be needed by year so and so? Other policy issues focus on the supply of health manpower in primary care specialties such as family practice, internal medicine and pediatrics, and the geographic maldistribution of this manpower.

Of course, we must be concerned with the national supply of health professionals and their geographic distribution. Certainly we must work to increase the numbers of health professionals working in ghettos, barrios, rural and other underserved areas of the country. These policy issues are the responsibility of the government. But we must also be concerned about the quality of health care provided by these professionals and the quality of their education. This area of policy resides with our colleges and universities. Ever since the first medical school was established in 1767, the quality of health care in America has been closely linked to the quality of professional health education. In the recent preoccupation with numbers, however, we have lost sight of our goals and the quality of our training programs has gone virtually unchallenged. It is time to shatter our illusions that these programs are top-notch and rattle the ivy covered walls that hide the skeletons in the clinics. We must question the quality of instruction in the health professions as well as the effectiveness of the curricula, for in
our estimation, that quality is infinitely less than most people realize.

The Cause

It is not very difficult to diagnose the cause of the instructional malady that pervades our colleges and universities. Like all of the other academic disciplines in higher education, the health professions have clung tenaciously to the time-honored shibboleth that the mere possession of an M.D., D.D.S. or any other doctoral degree qualifies that person as a teacher. In point of fact, most medical faculty, like any other faculty, receive no training as teachers during their graduate programs. Like all faculty, health professional faculty are rewarded primarily for their research productivity and their professional stature; few are encouraged to, so few devote significant portions of their time to upgrading their instructional skills or systematically evaluating the effectiveness of their instruction. Many accept certificating boards as the ultimate tests of student learning whether or not these exams are really relevant to the goals of the health program or the needs of the population. Instructional programs are too often evaluated by students' performance on examinations -- if the grading curve is symmetrical and bell-shaped, the course is regarded as successful. The question of how much benefit the course is to improving the students' ability to improve or maintain health in their patients is rarely, if ever asked.
Few schools have explicit measurable goals defined for their programs and even fewer use specific measurable instructional objectives as a basis for evaluating their students' learning. Some write them, albeit poorly, but very few use them wisely. Many faculty who write, borrow or buy them are not aware that specific measurable instructional objectives are but a part of a systemized learning approach called criterion-referenced instruction. The key word is measurable. Faculty are usually unaware of the other necessary components of this approach--individual student assessment and feedback, alternative methods of instruction and above all, evaluation. Objectives by themselves are worthless, yet volumes of them are predominantly displayed at many schools and offered as evidence of educational sophistication to accreditation teams which, to varying degrees, assess the value of the programs by the number of objectives contained in them.

The ailing health of our college and university programs can no longer be ignored. Major surgery is in order.

An Approaching Epidemic

At least for the next few years, we must stop focusing inordinate amounts of attention on the question of how many health professionals are needed in what parts of the country and concern ourselves primarily with clarifying the goals of our country's health care program and the immediate objectives of our health training programs. This policy making process should include practitioners, professors, politicians and the public. An even more fundamental policy issue concerns the
health needs of the country and whether our goals and our training programs are really addressed to meeting these needs.

Let me give you an example of what I mean. Three years ago, we began working with a dental school in California, assisting in the process of defining explicit goals and objectives for the school, departments and courses as part of a comprehensive and long term program of curricular change and evaluation. During the goal-definition period, the faculty stressed to us the importance of prevention, maintaining that if the focus of the program was to train students in the prevention of disease as well as its treatment, many of the everyday ordinary dental diseases that plague our mouths would eventually be eliminated. One of the major school goals ultimately arrived at was that the students would be able to provide effective preventive care in all areas of dental health.

However, when we examined the courses to see their relevance to these school goals and questioned both current students and recent graduates of the program, we found that very little instructional attention was being devoted to the topic of prevention. It was, so-to-speak, "covered" in a single course in the senior year; few faculty in other courses ever mentioned the word. It is stretching things a bit to expect that students would be overwhelmed with the importance of a topic and consider it critical to the health care of the public if it is discussed in only one course throughout a four-year program. That's just one of many examples of differences that can be found between intent and actual practice in the education of health professionals.
Lest anyone think that we are painting an overly bleak picture of the situation, let me acknowledge the many professional schools that have taken steps to improve their educational programs in a number of areas. Some have added to their staffs persons trained in educational psychology, learning theory and instructional technology. Others have available to faculty a number of the most recent technological advances in instructional equipment. Unfortunately, however, in a number of these instances, both the equipment and the "experts" lie dormant. Some of the most lonely and frustrated educators we know are surrounded by magnificent learning laboratories in dental and medical schools. They have not been able to get the faculty to use it. In some cases, they forgot to show them how! And rarely have they decided what the goal of these educational experts or the technology should be. Too often there is no policy as to how the students or the instructional program are to benefit.

A number of schools have become heavily involved in community health programs; others have developed area health education centers and other types of decentralized clinical-training programs. In many schools, there is a new emphasis on the early exposure of students to clinical experiences and a much more conscious effort to relate basic science training to clinical training. All of these efforts are to be lauded. Still, even in many of these instances, the reforms are uncoordinated and instituted without benefit of a needs assessment or clear definition of purpose. Even worse, many are stamped successful
regardless of whether the changes were ever systematically evaluated for their educational impact.

The Cure

Policy making is by definition setting a course to be followed in the future. Evaluation is the formal assessment of the effect or worth of that action. The policy making process transforms inputs into outputs -- the evaluation process is concerned with the quality of the output. Both are, or at least should be, intimately related. Evaluation should be continuous throughout the policy making process, preceding and antecedent to the program, and providing continuous information for policy reassessment and program improvement. A problem to be considered by this conference is that too much policy is being made and too little evaluation is being undertaken in the area of health care education, management and delivery.

The Comprehensive Health Manpower Act of 1971 provided capitation grants and special projects grants to health profession schools to encourage innovation and reform -- particularly in the expansion and acceleration of their programs. Changing the direction of grants from research to curricula, the Act was a landmark in Federal legislation and stimulated many new curricular programs. But it is now five years later, less capitation funds are available, and the time has come to stop and reflect. Health professional schools must evaluate the effectiveness and impact of those expanded and accelerated programs. They must evaluate the relevance of the programs to the goals of the nation's Health care program and...
evaluate the flexibility of their programs in meeting the needs of an ever-changing population.

Our social system and its processes and programs are very complex phenomena, and as such, it is impossible to always determine in advance exactly what will occur as a result of our decisions or our actions. Only by including on-going, rigorous and systematic formative evaluation in the policy making process can programs be modified or strategies changed to meet the needs of a changing population in a changing world. These are the crucial policy issues that must be addressed. The goal of our country's health care delivery system is to establish and maintain high standards of health among its citizens. That goal can only be accomplished if the quality of the health care professionals and their training is assured. As our schools go, so goes the health of the nation. And only through evaluation can we determine the way in which our schools are going.