Message from the Editor

What is Prevention?

I have been in the field of preventive medicine since entering my residency in public health with the New York City Health Department in the fall of 1965. (And yes, the word is "preventive," *not* "preven*ta*tive.") I have been fortunate that in the span of my career, preventive medicine has gone from being a stepchild to being a field which, if not yet fully accepted in medicine in general, certainly has much more currency than it did when I started out. Preventive medicine specialists are no longer regarded as "not real doctors," as the second chairman of family medicine at my medical school described us in the 1970s. That was before he, an overweight smoker, prematurely passed on to his greater reward. It has now become widely recognized that personal preventive medicine—prevention on a patient-by-patient basis—is a very important element of medical practice. And as for what is now called "population medicine," generally corresponding to what is also called "public health," its importance for the health of the nation is becoming much more widely recognized too.

If the administration of Barack Obama follows through on its campaign pledges, we will see an even further increase in the amount of attention paid to both personal preventive medicine and population medicine. In the campaign, President Obama regularly referred to "prevention" as an important component of the health care delivery system reforms he would propose if elected. He talked about its benefits for both the health of our people and the economic health of the health care delivery system itself; the latter due to its potential for possibly saving significant expenditures as people stay healthier over time.

It is important to understand what "prevention" per se truly is, as there are broad misunderstandings of the term. For example, in news reports about the most recent evaluations of the effectiveness of colonoscopy in the early detection of colon cancer, the technique was widely referred to as "prevention." Of course, colonoscopy *does not prevent the occurrence of colon cancer*; it does provide the opportunity to detect and treat the cancer before it becomes clinically apparent, thus preventing a certain number of premature deaths that would have otherwise occurred. It is a *type* of prevention in the sense that preventionists use the term. But it is not prevention *per se* in the generally accepted meaning of the term: to stop something from happening. For preventionists, the latter is only one of the meanings of the word. But there are two others. As medical prevention moves further into the mainstream of medical practice, I believe it is important for both our profession and the public to understand the different types of prevention, the differences between them, and the differing levels of responsibility for implementing them (between health care providers and patients).

First there is "primary prevention": stopping disease or preventing injury before they occur, that is *prevention per se*. Immunization, smoking cessation, and wearing automobile seat belts are just a few examples. "Secondary prevention" is detecting clinically inapparent disease before it becomes clinically apparent, and more difficult to treat. Colonoscopy falls into this category, as do mammography and cervical cancer screening. "Tertiary prevention" is the proper management of clinically apparent disease so as to diminish the rate of occurrence of known complications down the road. Correctly managing the dietary, exercise, and pharmaceutical needs of diabetics to avoid neurological, visual, and cardiovascular complications is a well-known example of tertiary prevention.

An important characteristic of prevention at its different levels is the differing levels of responsibility for physician and patient for assuring its effectiveness. Other than for immunization, most primary prevention interventions such as regular exercise, weight management, smoking cessation, safe sex (that is not doing it on a trapeze), and so forth, must be implemented by the patient. For the secondary prevention interventions, primarily in the nature of screening, the primary responsibility resides with the providers. The responsibility of tertiary prevention is fairly evenly shared between the patient and provider.

We are moving into an era of increasing involvement of the medical profession in prevention. The new program of the American College of Sports Medicine *Exercise is Medicine*®*, which is designed to educate and train all health professionals in how to effectively provide the exercise prescription in clinical practice (see *AMAAJ*, Spring 2008, p. 4), is just one example of this trend. As we move forward, I believe it is important for all of us to understand the three levels of prevention and how each can be used most effectively.

Respectfully yours,
Steven Jonas

* *I am privileged to be the first author, with Edward M. Phillips, MD, of the textbook* ACSM's Exercise is Medicine®: A Clinician's Guide to Exercise Prescription *(Philadelphia, PA: Lippincott, Williams and Wilkins, March, 2009).*