

Prevention's Time Has Come?

By Dr. Ronald Eckoff

I came to Iowa in 1965 as a commissioned officer in the US Public Health Service. As the new kid on the block, I was sometimes asked to give talks or write articles, but I didn't know a great deal about public health. Naturally, I used other people's ideas. I liked an article in Public Health Reports by George James, MD, Commissioner of the New York City Health Department.

Dr. James divided the natural history of disease into four stages. The first stage is that period before the disease begins, the prepathogenic phase. The important factors are those which make an individual more or less susceptible to a disease – health habits, hereditary pattern, occupation, etc. The citizen is not very much interested during this phase. They feel no pain and feel no immediate payoff exists to motive a change in habits. The health care system also does poorly in this phase.

The second stage relates to pathology subject to early detection. The disease process has begun, but the patient is not aware of it. Again they feel no pain and do not see the need to take time off from work to seek early detection tests. The health care system does poorly here too.

The third stage is the clinical phase. This is when the patient has accepted the fact that they are ill. They go to the doctor and say, "I have pain, I want help." American medicine has been its best at this stage, but care is frequently fragmented.

The fourth stage is that in which we have given up hope of a biological cure and recognize that the disease is chronic. The individual may wish to give priority to care because of their aches and pains, but they frequently find it difficult to elicit an adequate response from the health care system.

Dr. James used the story of the "Cut Finger Emergency" to illustrate.

"Let's imagine a woman who comes to the emergency room of a general hospital at 3 A.M. with a cut finger, bleeding profusely, with a handkerchief wrapped around it. She is seen in a relatively short time by an intern. He washes the finger with antiseptics, drapes the lesion, sutures it, and bandages it. He then tells her to return in about 7 days to have the stitches removed."

"This is an example of high-quality medical care in 1965. I hope by 1975 this will be an example of exceedingly poor medical care. I hope it will be used as a classic example of poor care. If the intern had looked at this woman even

casually while she was sitting in the waiting room, he could have seen her reading a magazine, holding it at arm's length with the hand that wasn't cut. So he missed an opportunity – not then but maybe later – to follow up and find out that her glasses were no longer helping her because she was suffering from and was in the fourth stage of the disease presbyopia. He could have easily rehabilitated her, perhaps thereby preventing her from cutting her finger again."

"Then, if he had put her up in stirrups, and done a Pap smear, he may have discovered the disease carcinoma of the cervix. And so, he missed a good opportunity to practice the second stage of medicine for that disease."

"Then finally, if he had observed her further, he could have seen her lighting a cigarette with the butt of another. And so he missed the opportunity of practicing first-stage medicine for several diseases, namely, carcinoma of the lung, coronary heart disease, carcinoma of the larynx and emphysema."

Now, what did he do? He treated her finger – the third stage of the disease, cut finger. He completely ignored and did nothing about treating a patient who was suffering from other stages of a flock of other diseases."

Note 1. I was an intern July 1, 1964-June 30, 1965

Note 2. It was common in 1965 to refer to doctors as "he".

Note 3. The first Surgeon General's Report on Smoking and Health was released in 1964.

I don't recall the details, but I apparently used this story in a talk or article about Health Maintenance Organizations (HMOs) which were fairly new at the time and were supposed to focus on keeping people well.

Sixty-four years earlier, in May 1901, Dr. R.E. Conniff of Sioux City, Past President of the State Board of Health, presented a paper "The Growth of Preventive Medicine" at the Fiftieth Annual Meeting of the Iowa State Medical Society. He said that the nineteenth century had passed and its record of epoch making discoveries had not been equaled in

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all the history of medicine. He went on to say: **“It is plain, the medicine in the future will be in the main, preventive, and there is a great responsibility resting upon us as a profession,** for as we become acquainted with the conditions which produce disease, our responsibility increases in directing our efforts toward their eradication, and fortifying against encroachments of disease by building up resistance.” Dr. Conniff was primarily talking about infectious diseases, but also mentioned prevention of malignant diseases.

Now fast forward to 2013 and Harvey V. Fineberg, MD, PhD, President of the Institute of Medicine and former Dean of the Harvard School of Public Health, authored a special communication in the July 3, 2013 issue of the Journal of the American Medical Association. The title: “The Paradox of Disease Prevention, Celebrated in Principle, Resisted in Practice.” He says prevention is deeply embedded in US culture with proverbs such as “a stitch in time saves nine” and “an ounce of prevention is worth a pound of cure”, but is relatively neglected in preventive medicine.

Dr. Fineberg discusses twelve reasons prevention is difficult:

- Success is invisible
- A lack of drama makes prevention less interesting
- Statistical lives have little emotional effect
- There is usually a long delay before rewards appear
- Benefits often do not accrue to the payer
- Advice is inconsistent or changes
- Persistent behavior change may be required
- Bias against errors of commission may deter action
- Avoidable harm is accepted as normal
- Prevention is expected to produce a net financial return, whereas treatment is expected only to be worth its cost
- Commercial interests may conflict with disease prevention

- Advice might conflict with personal, religious, or cultural beliefs

Dr. Fineberg then presents six strategies to overcome obstacles to prevention:

- Pay for prevention
- Make prevention cheaper than free
- Involve employers
- Reengineer to reduce need for individual action
- Use policy to make the right choices easier
- Use multiple channels to educate, reframe, and elicit positive change

I recommend Dr. Fineberg’s paper for a discussion of these points. His concluding paragraph:

“The health care community cannot expect an overnight transformation: preventive messages must be repeated across many forms of media and entertainment to become solidified over time as cultural norms. Success will require a sustained effort from individuals and families in their daily lives; from physicians, nurses, pharmacists, and other health professionals; from cultural, entertainment, and sports celebrities; from employers and insurers; from political, civic, and business leaders; from public agencies at all levels; and from philanthropies. In the end, prevention is truly worth the investment to make a difficult sell just a little easier and to put everyone on the road to a healthier future.”

To be certain there have been many prevention successes in the past 112 years, but prevention has not become a cornerstone of the health care system. Will Accountable Care Organizations do that? Has Prevention’s Time Come?

