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Community Health

The assumption that effective treatment of illness vastly improves community health is incorrect. Prolongation of life often adds to the total burden of illness in the community, and therapeutic successes sometimes increase the proportion of defective genes in the community genetic pool. Even discounting these special circumstances, medical care from a community health viewpoint always comes too late. In 1920, Andrija Stampar, the great public health leader of Yugoslavia, wrote:

> No matter what the number of physicians may be, they will never improve people's health by individual therapy. . . . The successes of practical medicine are no doubt remarkable and the help offered by it . . . important, but always for a small number of people only. . . . People's health is never in direct relation to the number of physicians.

This is not an attempt to derogate the importance of medical care; however, community health is more directly a function of disease prevention than of the availability and sophistication of our resources for medical care.

Most of the decline in disease incidence and mortality, and therefore most of the increase in average life expectancy, has resulted from influences other than efforts aimed at controlling specific diseases. It is true that certain successes of preventive medicine are unambiguous. However, despite successes based upon the great expansion of knowledge of the specific etiologic agents of disease, the major benefits that have accrued to us in the past 100 years have resulted from the operation of undirected, nonspecific influences. Advances in medical knowledge and the decline of disease are simultaneous results of a general improvement in the quality of life.

The preceding discussion leads quite naturally to the conclusion that enormous improvements would be possible if we were able to understand and control the general environmental factors contributing to disease. Past scientific advances have been based very solidly on Aristotelian logic and reductionist philosophy. The successes attending this approach have been strong, and I would not be so foolish as to argue with success. However, I will argue that our obsession with reductionism has led us to ignore the very real values of a synthetic systems-oriented approach. To define, explain, and gain control of the various and extremely effective determinants of disease requires a deep appreciation of the ecological systems of which they are a part. Environmental management based on this kind of ecological research holds forth the promise of new and more effective means of disease prevention.

We can establish, despite the complicating factor of genetic variability, a working hypothesis that the differences in disease frequency between different populations is mainly a result of their different environmental experience. Therefore, the lowest observed risk of illness in any general population is a goal attainable in any other population. This falls somewhat short of the ideal of eradicating disease, but it is so far in advance of present reality that it should be acceptable as worthy of our efforts.

To pursue this approach will call for a philosophy substantially different from that which has usually guided epidemiological studies. We cannot ignore the usefulness of knowledge of specific etiologic factors; however, we should concern ourselves with clusters of causes and combinations of effects and how they relate to each other.—REUEL A. STALLONES, *School of Public Health, University of Texas, P.O. Box 20186, Astrodome Station, Houston, Texas 77025*

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