

ment of developmental and learning problems were available without cost and accessible in the region. The observation that many study children in both the experimental and control groups never received these services is an important observation of process, and an indication of the lack of effectiveness of the screening and follow-up program. This failure of linkage between screening test administration, diagnostic assessment and "supportive" or management services may be characteristic of mass screening programs² and one explanation of ineffectiveness and possible labeling effects. Strategies to improve both compliance with advice given to parents of children screened positive, and compliance by professionals with the steps of diagnosis and intervention for positive screenees could reasonably be implemented (and evaluated) as a management decision by public health departments on the basis of our findings.

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On Disease Clustering

I enjoyed the thoughtful commentary¹ and editorial² about disease clustering. A vexing problem facing public health agencies today is how to respond

to reports of disease clusters. The most common form of such reports is the perceived spatial and/or temporal clustering of cancer in a neighborhood, school, or workplace. Considerations by public health officials in responding to these reports weigh the costs of responding and not responding as well as the likelihood of developing new knowledge for cancer control.

For the past five years, the Minnesota Department of Health (MDH) has had an active program for evaluation of the public health significance of perceived excesses of cancer. During this time, the MDH has received nearly 300 reports from concerned citizens, physicians, other health professionals, and civic leaders about what is perceived to be an excess of cancer. The MDH is aware that the vast majority of these reports have no statistical or biologic basis and that almost all of them have no public health significance.³ Despite the obvious pitfalls, we have decided to actively pursue these reports in Minnesota for two reasons.

First, the individual or community believes there is a legitimate concern. These concerns often grow out of proportion to their potential significance if no official concern is expressed. It is clear that society has focused on cancer as its endpoint of concern over the environment. In the face of these potentially emotionally-charged issues, use of epidemiologic and other scientific knowledge provides valuable health education about cancer and the environment on a one-on-one basis. We have found that working with individuals or communities in exploring the nature of their concern and, where ap-

propriate, conducting studies provides a useful service.

The other reason which justifies responses to cancer cluster reports is the hope that they will lead to new knowledge and to assure ourselves that we are not observing a new or emerging public health problem.

In order to satisfy the constraint of responsibly using state resources without missing the important problems, we have developed a hierarchical protocol which contains four telescoping levels of investigation: Information and Education, Public Initiated Surveys and Education, Validation, and Analytic Studies. Only two of the nearly 300 reports have matriculated through all four levels of the protocol. A large case control study of juvenile leukemia involving the MDH, the Universities of Minnesota, Wisconsin, and Michigan, and the Mayo Clinic, and an occupational cohort study of highway maintenance worker mortality are nearly completed and are the result (at least in part) of passing through the first three action levels. Perhaps more importantly, nearly 300 possible political/social problems, some with high volatility have been brought into proper perspective without the misappropriation of scarce resources.

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