Comments 35 Years After the "Ecology" Article

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When Joe Garland, then editor of the New England Journal of Medicine, accepted our paper the only change he wanted was the word "ecology" in the title. In a long-distance call from a pay phone during an Atlantic City meeting I insisted that it had to stay since an ecological perspective was central to our overall argument. He graciously accepted our wish. At the time Frank Williams, Bernie Greenberg and I had no inkling of the impact the paper would have over the succeeding decades. In fact the angry mail we received from incredulous academic colleagues suggested that our message soon would be forgotten.

First, however, we should acknowledge that the idea for the nested squares came from an article (referenced in our paper) by my friends John and Elizabeth Horder who analyzed their London practice to determine the disposition of their own patients. We deemed it reasonable to examine the distribution patterns in much larger general populations. Second we should acknowledge that Lord Dawson, unbeknownst to us at the time, had referred to “primary health centres” in his classic report of 1920 . Also unbeknownst to us, Yves Biraud, Director of Health Statistics at the World Health Organization in Geneva, had used this term without attribution in a mimeographed document in 1960 . Over the decades the term “primary medical care” which we introduced as a substitute for General Practice, by then “dirty words” among the academic medical fraternity, seems to have stuck. I no longer believe it is a useful term. Why not refer to General Medicine? For that matter, the sooner that General Internists and Family Physicians combine forces, perhaps with General Pediatricians, the sooner General Physicians are likely to regain their time-honored place in the medical establishment. The recent advent of Managed Care and HMO’s is doing more to redress imbalances in physician education and deployment than academic medicine has done in the intervening three decades. Changes which seemed illusive thirty years ago now seem inevitable.

Our paper’s greatest contribution may well be its emphasis on the distribution of health problems and services among general populations. The concept is readily grasped from the graphic depiction by the nested squares. In commercial lingo this was “marketing” information and as such it seems to mirror the distributions experienced by HMOs and Managed Care enterprises. Population-based studies now have regained their traditional place beside clinical observations and laboratory investigations. The latter have brought a cornucopia of new interventions in the past 50 years but their efficacy and effectiveness are usually best assessed by population-based clinical trials. Perhaps our paper also helped to establish the utility of the now well-accepted field of Health Services Research.

Over the years a number of studies replicated our findings in various jurisdictions and in 1973 I revisited the relationships using national data from the National Center for Health Statistics . They were unchanged. The same year, Donald Anderson, then Professor of Epidemiology at the University of British Columbia, completed a study in which academic specialists and sub-specialists assessed the need for tertiary care by that province’s population. They estimated that about 100 tertiary care beds per million population were adequate . In the United States we are now in the process of downsizing overall bed capacity and concentrating our tertiary care facilities. Had medical students and their teachers been given greater exposure to medical history, we might all have learned to think more critically about the distribution of medical resources by reading Lord Dawson’s seminal report of 75 years ago.

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