The rare and the plentiful – a dilemma in pediatric manpower

H. Moghadam, M.D., M.P.H., F.R.C.P.[C], *Toronto*

The purpose of this communication is to question the present postgraduate training program in pediatrics and to propose a more appropriate alternative to meet the modern challenges in child health.

Pediatrics has its origin in the special concern for normal growth and development of children. During the past hundred years this concern assumed the importance of ensuring the future of a society. While it is no longer necessary to plead for special consideration for children, the emergent needs in child health call for a change of direction in pediatrics. Common disabling diseases and nutritional deficiencies of childhood which, until a few decades ago, were the major contributors to high infant mortality rates, have, to a great extent, been conquered. They have been replaced by new challenges which, unfortunately, have not caught the imagination of all those who are entrusted with the health care of children.

The training of physicians has been, thus far, disease-oriented and hospital-centred. In the hospital setting medical students had, until recently, little or no opportunity to study the socioeconomic and cultural determinants of health and illness. Even today, when medical students and residents in specialty training are exposed to these issues, the glamour of molecular biology and the challenge of difficult diagnostic problems overshadow all else. The postgraduate training in pediatrics has not been significantly different. The bulk of pediatric care takes place outside the hospital while nearly all of pediatric training is centred in the hospital. Eisenberg aptly expressed this view: "Academic pediatrics has, I believe, lagged in its interest in the clinical care of the non-hospitalized child. Its training has moved toward an even more precious preoccupation with the exotic; it prepares its house officers exceedingly well for what they rarely see and says hardly a word about what will confront them daily".[1]

It is evident that the medical care of hospitalized children in its narrower sense has been well met. The newer issues which have received less emphasis are those which constitute the larger portion of pediatric needs in our society today but seldom are encountered in hospitals. They include the vast field of emotional and learning disorders of childhood, the problem of drug abuse, alienation of youth, delinquency, child abuse, unmarried teenaged mothers and unwanted pregnancies, the prevention of birth defects, and the care of the handicapped child at the community level. All these problems are interrelated and will profoundly affect the health of children in coming generations. They constitute the bulk of poorly met or unmet pediatric needs and are as important as were the lethal or maiming infectious diseases in pre-immunization and pre-antibiotic days. Their prevention and management require a different organizational structure, one in which a multiplicity of professional workers, including a new breed of pediatrician, must work in close cooperation.

The providers of pediatric care

At the present time the health care of children in Canada is provided mainly by family physicians and pediatricians. Health departments also provide some preventive care.

Family physicians

It is fair to assume that the bulk of ambulatory pediatric care in Canada is supplied by family physicians who have had varying degrees of pediatric training. They will probably continue in this role in the foreseeable future. In 1971 there were 26,182* active civilian physicians in Canada, 12,566 (49%) of whom were in general practice. It is estimated that about 80% of Canadian children receive their health care from this source.[2]

Pediatricians

While it is recognized that child health care requires special knowledge and skill, it is equally well known that special skills of pediatricians, as acquired in present training, are largely superfluous for the day-to-day needs of the great majority of children.

Banister[3] reports that in 1968 there were 875 pediatricians listed in the Canadian Medical Directory, 769 of whom were in active practice. Of the 875, 721 (82.4%) were located in metropolitan areas in which 48% of the population lived. Furthermore, in the same year 688 (78.6%) of all pediatricians were located in cities where 16 medical schools are situated. Recent reports by Shah[4,5] indicate that over two thirds of all pediatricians are engaged, to some extent, in the delivery of primary care.

While the number of pediatricians has slowly increased to 907 in 1971[2] there has been a steady decrease in the population 0 to 14 years of age during the past few years: in 1967 there were 6,593,500 children in this age range in Canada, but by 1971 this population had decreased to 6,381,000. However, owing to their concentration in metropolitan areas, there is a marked maldistribution of pediatricians in the country. Furthermore, as Shah[4] reports, 55% of pediatricians are located in upper and middle socioeconomic areas of metropolitan centres with another 33% in mixed socioeconomic areas.

Reprint requests to: Dr. H. Moghadam, Dept. of Health Administration, University of Toronto, School of Hygiene, Toronto, Ont. M5S 1A1

*This figure does not include 1257 physicians not in private practice and 5186 interns and residents.

Since of the 769 pediatricians in active practice in 1968 only 70% provided primary care, and if the number of children who can be looked after by the average pediatrician is arbitrarily set at 2500,† it can be calculated that in 1968 some 1.3 million children or 20% of the population 0 to 14 years of age received primary care from pediatricians.

Does this mean that Canadian children are less healthy than they would have been had they all received their primary care from pediatricians? Available data indicate that this cannot be assumed. It is recognized that infant mortality rates reflect not only the quality and quantity of pediatric care but also a host of other socioeconomic factors. However, Britain and a number of European countries where pediatricians work mainly as consultants have more favourable rates than Canada.

If all children were to receive primary care from pediatricians we would need immediately at least five times as many pediatricians as we have now. This is neither possible nor desirable.

Pediatric training

To qualify as a certified pediatrician a physician must take four years of training beyond internship. Some pediatricians go beyond this basic training and spend one or more years in subspecialty areas such as pediatric gastroenterology, pediatric allergy, etc. Both the general pediatrician and the superspecialist are well qualified to do consulting work in pediatrics, yet the majority of pediatricians in Canada are engaged in the delivery of primary care. Within the present system of health care there is no room for so many consultant pediatricians. If all pediatricians in Canada were to restrict their practices to consultation, most would not be able to survive financially. Yet there is a slow but continuing increase in the number of consultant pediatricians trained in Canada.

An alternative to the present dilemma

There is a need for a new kind of pediatrician, the so-called community pediatrician.[6] Training programs for community pediatricians are offered at a number of universities, including California, Michigan and Aberdeen. It is time for us in Canada to consider developing similar programs to divert some of the present and future pediatric residents towards this type of training which is more appropriate to the challenges of our time.

There are many aspects of child health which require special knowledge and professional expertise beyond that of the general practitioner. The training of pediatricians at the present time rarely, if at all, exposes them to these aspects of child health, which include the health care of handicapped children outside of hospitals, the health problems of school-aged children, particularly learning disorders, the effect of physical, social and educational environment on a child's health and, conversely, the effect of a child's health problems on his education. A recent nationwide study[7] estimates that there are 1,000,000 children in Canada who suffer from varying degrees of emotional, physical and learning disorders. The report also points out our present deficiencies in prevention, assessment and treatment of these disorders.

A pediatrician trained for community work would require more knowledge about psychological development, including the development of perceptual skills, than his purely hospital-trained colleagues have. He would require a deeper understanding of sociology, epidemiology and other basic sciences of public health. He would need a basic knowledge of childhood education processes. This will not make him a psychologist, a social worker, a teacher or an epidemiologist. It will transform him to a pediatrician who can work more closely and meaningfully with these professional workers.

The basic training of community pediatricians requires two years of hospital training, one year of training at a university centre in basic fields of sociology, epidemiology, psychology and mental subnormality, and organization of health services, and one year of experience in schools and special assessment centres, etc. Such training would equip a community pediatrician with sufficient skills to work effectively with his hospital colleagues as well as other professional workers in the service of children. He would be fitted to provide consultation to schools, health departments and community health centres and to give advice concerning children both as part of the community and as individuals.

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†A recent study by the British Columbia Medical Association revealed that in that province this figure is closer to 1000.