MCH Responsibilities and Opportunities Under National Health Insurance

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A look at Sweden and the United Kingdom

IT IS LIKELY that in the 1970s there may be a national health service or a national insurance program in the United States in some form. It may cover all the population or only such high-risk, vulnerable groups, as the elderly, mothers and children, the chronically ill, and the handicapped. It may cover comprehensive health care for everyone or be limited to those requiring care for catastrophic illness. It may include efforts to improve the health care delivery system for all or some of the population, or it may still be largely an insurance, bill-paying program, as it is at present, for the elderly and the indigent. It may cover the broad range of services needed to provide inpatient care, ambulatory care, and home care. Many choices and options are open to the United States.

In anticipation of a new national health insurance program or a new national health service in our country in some form in the 1970s, it is timely and, in fact imperative, that those in all existing fields of public health study and analyze existing services and programs, begin to define their future roles, and make plans for the future. In this article steps are taken to do this for the field of maternal and child health. Whenever the term "maternal and child health" (MCH) is used, I include the subareas of maternal health, child health, school health, handicapped children, adolescence, family planning, abortion, and the care of children and youth in special settings or circumstances such as day care, foster homes, institutions, courts, camps, and other settings.

Many major issues and questions require public, civic, professional, and legislative debate, discussion, agreement, and planning. For example, one issue is the role and interrelationships of the Federal, State, and local levels of government, the voluntary agencies, and the professional societies. A second issue is concerned with the extent of coverage of the population—the types of recipients of care, the volume of the population to be covered, and the need to provide more even geographic distribution of services. A related issue is

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the need to develop a regional plan for the planning and delivery of services.

One set of issues is concerned with the health delivery system: should there be one monolithic system of health care, or will there be opportunity for a pluralistic plan using several approaches? Who will provide primary care? How can preventive, treatment, and rehabilitative care be combined and integrated? What relationships can be developed between those delivering primary care and those who are consultants? How can inpatient and ambulatory care be integrated?

Issues relating to the content of patient care include what will be provided, what will quality control consist of, and will it be possible to provide special and more intensive efforts for high-risk groups.

There is a series of manpower issues, including the need to plan for the number required, their qualifications, recruitment, preparation, and distribution.

There are a number of funding issues including the sources of funds, the possibility of channeling funds to improve the health care delivery system versus a bill-paying program only, the methods of reimbursing providers, the role of government and of other possible intermediaries such as health insurance companies, the need for cost control, and the need for separate funds for special services for special population groups.

General Principles

In making plans for a national health service or a national health insurance program, the following basic principles need to be kept in mind. Health care is considered to be a right of everyone (*1*). The government has the responsibility to see that it is provided. Access to health care needs to be available to all, regardless of socioeconomic status, ethnic group, or geographic location. Barriers to health care need to be eliminated. Preventive services need to be included and free. Quality control and cost control need to be built into the health delivery process and system.

A look at the general outline of MCH services in two countries which already have national health services and national health insurance may assist U.S. health planners.

At present, in both the United Kingdom and Sweden, there are visible and identifiable MCH services and personnel. The United Kingdom has had a national health service since 1948, and Sweden, since 1955. The staff of these services provide MCH leadership in these countries, along with the leaders of professional societies, organizations, and universities. In each country, there is a clear public policy which recognizes the needs of mothers and children. Special provision for them is made within the framework of the national health care system. Each country has a designated unit responsible for making health services available and accessible to all mothers and children without cost.

Organization of MCH Services

United Kingdom. At the national level, a separate unit within the United Kingdom's national Department of Health and Social Security is responsible for MCH, including child health services and services for handicapped children; responsibility for school health has recently been placed in the MCH unit. The MCH agency is also partly responsible for some children at high risk, such as abused children. A separate unit, closely associated with MCH, is responsible for maternal health. The national responsibility for family planning has largely been carried in the past by a voluntary agency, the Family Planning Association.

At the regional level, a system of regional centers for handicapped children is planned, and some centers are being developed.

At the local level, the 174 local health authorities are responsible for the MCH services. A medical officer of health is in charge of MCH services for most local authorities. These authorities provide midwifery, health visiting, home nursing, child health services, family planning, immunizations, health centers, welfare food services, and care of premature infants. The local education authority operates school health services, and there are local medical officers in charge of these in some areas. Personal social services are available through local social service departments.

Sweden. The National Board of Health and Welfare of Sweden has a separate unit for child health services; a pediatrician is its full-time director. Two other units are responsible for services to the mentally retarded and for maternal health and family planning; the second unit has a part-time obstetric consultant. The National Board of Education has a pediatrician in charge of school health. Each of the 25 counties and three large cities is responsible for local MCH services, which are headed by a pediatrician recruited from a

hospital pediatrics department, as well as for local maternal health and child centers. A county medical officer serves as a medical advisor to the county board of education.

Basic Preventive Services

Maternal and child health is the single most strategic area in which to apply preventive health services. Children and youth, mothers with young children, and pregnant women not only represent a large part of the total population but they are also the most vulnerable group and the group which responds most readily to preventive measures. In both the United Kingdom and Sweden, their vulnerability is clearly recognized.

Sweden. Sweden's network of local maternal health centers are of two types (*2*). The 118 type 1 centers are connected with a hospital department of obstetrics and gynecology and are headed by an obstetrician. The 549 type 2 centers are always headed by a district medical officer or another type of physician. Some type 2 centers are combined with child welfare centers.

Almost all pregnant women receive prenatal and postnatal care, including family planning services, at these centers. Basic maternity care is provided by nurse midwives who are reinforced by obstetricians. Thus, any patient with an early complication of pregnancy can be placed quickly under the care of an obstetrician. Delivery of normal patients is by nurse midwives; patients with any abnormality are delivered by obstetricians. All deliveries take place in hospitals.

Sweden also has a network of child welfare centers (*2*). Their staffs see 99 percent of all infants born during the first year of life and continue to supervise 69 percent of them until they are 7 years old. Basic preventive services consist of health education, immunizations, health assessment of children, screening for handicapping conditions, anticipatory guidance, and advice in child rearing, nutrition, safety, and accident prevention. A special new health assessment of 4-year-olds has recently been introduced.

The school health services cover all pupils in the compulsory first nine grades and pupils in secondary schools. Health examinations are given to children in grades 1, 4, 7, and 9. The examinations in grades 7, 8, 9, are looked upon as having an important vocational component. School lunches are provided to all children in grades 1–9 and to some youths in secondary schools. There is considerable emphasis on sex education in the schools.

In Sweden, family planning information is available in schools and from hospital maternity services. The availability of this service varies among the counties, that is, there may be a considerable waiting period for service. The patient formerly had to pay for the visit to the physician (12 K or $3) and for oral contraceptives or an IUD. Contraceptive advice is now generally provided free of charge.

Abortion services are generally available, and the operation is performed only by obstetricians in hospitals. The reason for most abortions is termination of an unwanted pregnancy. Other reasons are related to the health of the mother or fetus.

Sweden, for a number of years, has had one of the lowest infant mortality rates in the world (11.1 per 1,000 live births in 1971), and it has one of the lowest maternal mortality rates (10 per 100,000 live and stillbirths in 1970).

It is estimated that 212,000 children, or 20 percent of the preschool children in Sweden, are receiving some form of day care at present. Another concern is for school children who have no one at home when the school day is over (*3*); at present there are free time centers for 10,000 children of school age.

United Kingdom. In the United Kingdom, 90 percent of all deliveries are now performed in hospitals, largely by nurse midwives supported by obstetricians. Prenatal care is shared by the general practitioner in his office and the midwife and obstetrician at the hospital. Thus, the maternity patient may receive prenatal care from the general practitioner until 30–34 weeks of pregnancy. During that time, she will be referred to the hospital where she is seen by the midwife; if she has a medical problem, she will be seen by an obstetrician. The patient receives the remainder of her prenatal care at the hospital. Hospital delivery of normal patients is performed by the midwife. The services of an obstetrician are available for patients with complications.

The hospitals have special-care baby units, based on a formula of 6 cots per 1,000 total beds for high-risk newborn infants (*4*).

The local health authorities operate child welfare centers. In 1965, 76 percent of all infants born in England and Wales were brought to the centers, as were 69.6 percent of children aged 1–2 years, and 20.7 percent of those aged 2–5 years.

A higher proportion of children of the three lowest social classes attend the child welfare centers. One of the emphases in the child welfare centers has been early identification of handicapped children (*5*).

The pattern of surveillance of the school health program in the United Kingdom is as follows: (*a*) medical examination on entering school, (*b*) followup visits to the schools by the physician and nurse, (*c*) subsequent medical examinations on referral, (*d*) periodic questionnaire for parents, and (*e*) periodic screening of vision, hearing, height, and weight (*6*). The school health program is looked upon as the first step of an occupational health program.

Family planning was originally the province of the Family Planning Association which provided the service and trained the personnel. Gradually, general practitioners are playing a larger role in providing patient care. On April 1, 1974, the responsibility for family planning was turned over to the general practitioner and the local health authority, to be incorporated into general health care. An interesting facet of the program are visits to the homes of poorly motivated women by a health visitor and a nurse or a general practitioner, who give advice and contraceptive services.

In 1972, it was estimated that 150,000 abortions were performed in the United Kingdom; two-thirds were estimated to have been performed on women from the United Kingdom; of the group, one-half were done in a NHS hospital under the care of an obstetrician in the NHS.

In 1948, legislation in the United Kingdom was enacted to make day care potentially available for all children. During World War II this had increased considerably from prewar levels and then declined. It is about to increase again due to expansion of preschool education. It is estimated that 12 percent of preschool children receive some form of day care. The imminent expansion of day care will be planned by each local authority, and it is expected that there will be concentration of services in districts of special need (*7*).

Regional Planning

There is evidence that MCH leaders in the United Kingdom and Sweden are taking steps to implement the principle of regionalization and to do regional planning.

United Kingdom. For example, in the United Kingdom at least one assessment center for handicapped children for each of eight regions of the country has been projected. Seven already exist, and an additional 13 will be set up as needed. Each would serve a population of about 3 million. Within each region, it has been recommended that there be district assessment centers for handicapped children, based in district general hospitals, each serving a population of 200,000–400,000 (*8*).

In the United Kingdom, regional planning is beginning for special-care units in hospitals for the newborn of high risk.

Sweden. A major central pediatric clinic or center for handicapped children is planned for each of Sweden's seven geographic regions. Each center is to provide diagnostic, treatment, and rehabilitation services for both inpatients and outpatients; these would include physical therapy, social work services, training in activities of daily living, and special education.

Because of the organization of maternal health services in Sweden, it has been possible to implement to some extent the concept of regional perinatal care. For example, the fact that a maternity patient with a complication can be placed under the care of an obstetrician means that potentially she can be delivered in a hospital with special services for her and her baby. In addition, intensive care units for the newborn with special transport services have been developed in some regions.

Special Surveillance and Monitoring

United Kingdom. The United Kingdom has had a program of voluntary notification of congenital malformations for some years (*9*). Reports are sent by hospital newborn services on a special form to local medical officers of health, and the data are transmitted to the Office of Population Censuses and Surveys for analysis and surveillance. This surveillance system in 1970 yielded reports on 14,019 babies who had a total of 17,293 malformations, a rate of 15.7 per 1,000 live births.

Two types of registers of handicapped children have been kept by local health authorities, a register of handicapped children and a risk register of high-risk infants. The risk register was judged to be of less value, and it was recommended for termination in 1970.

Sweden. The National Board of Health and Welfare keeps a register of all infants born with congenital malformations. Maternity services with

a pediatrician send monthly data on such infants to the National Board. The purpose of the register is surveillance, not followup.

A register of handicapped children is just being started in Sweden. There is already a separate register for mentally retarded children; special physicians follow these children.

Standards, Recommendations, Guidelines

MCH leaders in both the U.K. and Sweden have been active in formulating standards, recommendations, and guidelines. These have been used in a variety of ways to upgrade the delivery of health care to mothers and children in the two countries.

Sweden. Three documents issued by the National Board of Health and Welfare are noteworthy. In 1969 the Board developed "Model Regulations for Maternal and Child Health Service" (*2*). The regulations detail the responsibilities of the county and classify the MCH centers into type 1 or type 2. The regulations describe the content of prenatal and postnatal care, including family planning, and of child health care and mention the new special examination of 4-year-olds.

The second document, "Essentials of the Swedish National Program for Preventive Child Care," describes the plan and content of health care for children (*10*). The third document, "Health Screening for Four-Year-Olds," describes the purpose and content of the special evaluation (*11*).

United Kingdom. The U.K. has had a tradition of setting up special government committees and working parties to study and make recommendations concerning special problems of MCH care. In the past, this strategy was used to draw attention to babies with hemolytic disease of the newborn (*12*) and babies with congenital malformations (*9*). More recently, special committees considered child welfare centers (*5*), care of the child with spina bifida (*13*), human genetics (*14*), screening for the detection of congenital dislocation of the hip in infants (*15*), deafness in early childhood (*16*), domiciliary midwifery and maternity bed needs (*17*), and special care for babies at high risk (*4*).

Each of these reports in intended to represent the consensus of scientific, technical, and administrative personnel, of facts, thinking, application to patient care, and planning for the future. Each then becomes a reference source for those seeking to improve the quality of care.

Special Studies

In addition to the activities cited prevously, the U.K.'s Department of Health and Social Security has used the approach of studying and reporting on special problems, with the assistance of nongovernmental experts. The resulting departmental reports have dealt with sudden death in infancy (*18*), postneonatal deaths (*19*), maternal deaths (*20*), risk registers of handicapped children (*21*), and battered children (*22*). Sweden has also used the study report approach to consider sex education, contraception, abortion, sexual activity, illegitimacy, and venereal disease (*23*).

Use of Funds for Current Emphases

Both the U.K. and Sweden have applied the tactic of using special funds to re-orient and redirect the emphasis in the delivery of health care to meet current needs.

For example, U.K. physicians in general practice have been given financial incentives to form medical groups. Special funds are available to help them establish and equip physical facilities. Local health authorities are providing special physical facilities to bring together the general practitioners' services and the overall general community health services. The purpose is coordination of preventive and treatment services. Health visitors employed by local health authorities are being attached to general practitioners for the same purpose.

The British Government is using special funds to hire "community pediatricians," a new full-time position. These well-trained young pediatricians with a concern for community or social pediatrics are being appointed full-time to hospital pediatrics departments or departments of child health in medical schools. Their mission is to extend hospital services into the community, to bring community MCH services and hospital care together, to upgrade community MCH services, and to attempt to integrate preventive and curative medical care of mothers and children.

Special funds have also been used to pay British general practitioners extra money on a fee-for-service basis for immunization of infants and children, for antenatal care, and for family planning. All of these examples illustrate the use of funds to increase emphasis on certain aspects of patient care. Still another example is paying the general

practitioner on the obstetric list a higher fee for his participation in maternity care than the general practitioner not on the list. (To be on the obstetric list, a general practitioner is required to take a short-term course in obstetrics.)

Professional and Voluntary Organizations

In both the U.K. and Sweden, there is evidence that MCH leaders in government and those in related professional organizations and voluntary agencies cooperate closely. The governmental special committee and work-party reports reflect this working relationship.

In both countries voluntary agencies concerned with handicapped children, in particular, have made important contributions in the improvement of services. Two examples are special reports on the mentally retarded and the blind in Sweden (*24,25*).

Another example is the recent report (*8*) by Court and Jackson from the British Pediatric Association, "Pediatrics in the Seventies," reviewing the present status of child health services and manpower in the U.K. Some of the report's recommendations follow:

1. Development of a new type of pediatrician, the community pediatrician.
2. Substantial increase in the number of full-time pediatric faculty members in medical schools and university hospitals.
3. Further development of hospital services for children, at district and regional levels, and the increased use of day-hospital care.
4. Provision of additional pediatric specialists in perinatology, handicapped children, malignant disease, cardiology, neurology, nephrology, endocrinology, and hematology.
5. Expansion of assessment and treatment centers for handicapped children at regional and district levels.
6. Provision of hospital services for adolescents.

As a result of the issuance of this report, the Department of Health and Social Security has appointed a new working group, to be chaired by Court, to consider and make recommendations about child health services for the future.

The enormous role played by the Family Planning Association in providing services and in training physicians, nurses, teachers, and others in family planning (*26*) and the efforts of the National Council of Unmarried Mothers (*27*) in focusing attention on out-of-wedlock pregnancy are noteworthy contributions by two British voluntary agencies.

Special Care for Those at High Risk

Regardless of the sources of funds and methods of paying for health and medical care of any population, there will always be certain groups of the population at higher risk and in greater need of more extensive and specialized services. Within the MCH field, responsibilities include the identification of high-risk groups; the development, provision, and supervision of special services for these groups; and the evaluation of such services. Some examples of high-risk groups are families with a history of reproductive loss, youth in trouble, low birth weight infants, abused children, handicapped children and their families, and families with serious social, financial, health, or marital difficulties. In both Sweden and the U.K., there is evidence that high-risk mothers and children do have special needs and require special care.

The Question of Special Funds

Frequently, when a national health service or a national health insurance program is discussed, the statement is made that separate special funds will no longer be needed. The evidence from the United Kingdom and Sweden clearly indicates that certain specific services will continue to need special support. These include:

1. Basic preventive services of prenatal and and postnatal care, infant and preschool health supervision, school health services, and contraception. These should emphasize health assessment, screening, teaching, and care.
2. Special diagnostic, treatment, and rehabilitation services for handicapped children and their families.
3. Special services for high-risk mothers and infants, through the development of regional perinatal centers.
4. Special health and social services for mothers, children, youth, and families in trouble.

Special health and social services for mothers and children have not been disbanded or terminated in Sweden and the United Kingdom. To the contrary, it is clear that as scientific knowledge has increased, it has been translated into specific services for the community. Examples of such outcomes are mass immunization of populations as new vaccines become available, the prevention of deaths and brain damage associated with isoimmunization caused by the Rh factor, and the incorporation of discoveries in genetics into MCH care. Knowledge of genetics has led to taking genetic histories, making special diagnostic studies, and improving counseling, family planning, and abortion services.

Table 1. Age-specific mortality, 1965

Age (years)	Deaths per 1,000 population		
	U.S.A.	Sweden	England
Under 1	24.1	13.3	20.5
1–4	.9	.7	.8
5–14	.4	.4	.4
15–24	1.1	.7	.8
25–34	1.5	1.0	.9
35–44	3.1	1.9	2.1
45–54	7.4	4.4	5.8
55–64	16.9	11.3	15.1
65–74	37.9	32.3	32.0
75 and over	101.7	110.9	111.1
Overall	9.4	10.1	11.1

SOURCE: Reference 28, p. 151, table 27.

Table 2. Age-specific death rates, Sweden, Utah, and Minnesota

Age (years)	Rate per 1,000 population		
	Sweden 1968	Utah 1969	Minnesota 1969
Under 1	12.9	16.6	19.8
1–4	3.2	4.1	4.1
5–19	.5	.5	.6
20–44	1.2	1.6	1.6
45–64	7.4	9.0	9.6
65 and over	57.6	55.4	56.3
All ages	10.1	6.4	9.2

SOURCE: Reference 28, p. 158, table 30.

Tables 1 and 2 from Anderson (*28*) would tend to confirm his statement that "the system in the U.S.A. concentrates on care for the elderly relative to children, while British and Swedish systems do the reverse."

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