

Children with rheumatic fever or heart disease are given a wide range of educational services, a national survey discloses. Methods to provide these essential services in all urban areas are recommended.

Educational Services for Urban Children With Rheumatic Fever or Heart Disease

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CHILDREN with rheumatic fever or heart disease, either rheumatic or congenital in origin, were one of the first groups for whom special educational provisions were made by departments of education. These special educational provisions, over and above regular classes in regular schools, included teaching in special classes, special day schools, special residential schools, hospitals and convalescent homes, and in the child's home. Evidence of a consistent decline in the incidence and prevalence of rheumatic fever and rheumatic heart disease in children and youth is accumulating (1). Because of this obvious trend, it seems timely to look at the special provisions made for children with rheumatic fever or heart disease by public school systems in the larger cities of our country.

Method of Study

During the winter of 1958, a questionnaire was sent to the health officers and superintendents of schools of each of the 106 cities in the United States having a population of 100,000 or more according to the 1950 census. It con-

tained questions regarding the types and numbers of handicapped children cared for in the public school system; age of admission; type of school facilities; presence of established criteria for special educational placement and the agency responsible for their establishment; method of reviewing applications for special educational placement, personnel engaged in such review, and frequency of review; organization of special education within the public school system; method of financing and costs of education of handicapped children; and the provisions made for transportation and attendant service during transportation of handicapped children to and from school.

According to the 1950 census, the 106 cities had a combined total population of 44,311,716, or 29.4 percent of the total U.S. population, and a combined school enrollment of children aged 5 through 17 years of 7,192,100, or 28.4 percent of the total U.S. population. Ninety-eight of the 106 cities, or 92 percent, responded. These 98 respondent cities had a combined total population of 41,686,921, or 94 percent, and a combined school enrollment of children aged 5 through 17 years of 6,849,105, or 95 percent. All but 9 of the 98 respondent urban communities provide some special school services for children who have rheumatic fever or heart disease.

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Previous papers reported on the general information obtained from the questionnaires regarding all types of handicapped children and children with orthopedic, neuromuscular, or neurological conditions (2,3).

This paper summarizes the information obtained regarding children with rheumatic fever or heart disease.

Educational Placement Available

The most common types of educational placement for children with rheumatic fever or heart disease, other than regular class in a regular school, are home instruction, special day class, combination of home instruction and special day class, and special day school (table 1).

It is of some interest that 45 communities provide placement by home instruction, 29 in a special day class, 22 in classes in a hospital or convalescent home, 17 in a special day school, and 4 in a special residential school.

Table 1. Public school educational placement, by type other than regular classes in regular schools, of children with rheumatic fever or heart disease

Type of placement	Number of school systems
Home instruction only	19
Special day class only	8
Special day class and home instruction	6
Special day school only	6
Special day class, home instruction, hospital or convalescent home	5
Special day school, home instruction, hospital or convalescent home	5
Special day class, special day school, home instruction, hospital or convalescent home	3
Special day class, special residential school, home instruction	3
Home instruction, hospital or convalescent home	3
Hospital or convalescent home only	3
Special day class, hospital or convalescent home	1
Special day class, special day school	1
Special day class, special day school, hospital or convalescent home	1
Special day class, home instruction, special residential school	1
Special day school, hospital or convalescent home	1
Uncared for or not reported	32
Total	98

Table 2. Number of children with rheumatic fever or heart disease reported by school systems

Type of placement	Number of children	Number of school systems	
		Providing service	Reporting number of children
Regular class	4,065	98	14
Home instruction	755	45	41
Special day school	593	17	17
Special day class	484	29	24
Hospital or convalescent home	210	22	19
Special residential school	67	4	2

Some communities provide just one type of special placement: 19 by home instruction, 8 in a special day class, 6 in a special day school, and 3 in a hospital or convalescent home.

Officials were asked to report the number of known children with rheumatic fever or heart disease in the various types of educational placement. This question was incompletely answered on the questionnaires. There was more complete reporting of the number of children in hospital and convalescent homes, special day classes, special day schools, and receiving home instruction than of children in regular classes or in special residential schools. The largest single group of children reported was in regular classes, followed by home instruction, special day schools, and special day classes in that order. Only a few children were reported to be in special residential schools. Undoubtedly there was considerable under-reporting of children in regular classes (table 2).

Educational Placement Method

Ninety-one of the ninety-eight reporting public school systems, or 93 percent, stated that they had established criteria for the educational placement of all types of handicapped children. One each had established criteria only for cerebral palsy, for the blind, and for mental retardation. Four did not answer this question.

In almost one-half of the public school systems, responsibility for establishing criteria for

educational placement has been assumed by the local government, predominantly the local board of education. In slightly more than one-quarter, the responsibility has been assumed by the State government, predominantly the State department of education. The participation of the health department, either local or State, is very small. When the individual disciplines are listed under local government, there is medical participation in less than one-half of the methods.

In one-half of the public school systems, the board of education alone reviews applications for special educational placement. In no instance is such review done by the department of health alone. In approximately one-fifth of the school systems the review is carried on jointly by the departments of education and health. In only three school systems was the recommendation of the practicing physician acted upon without any agency review.

The number of professional personnel reviewing applications for educational placement ranged from 1 in one school system to 12 in another. The most frequent number of participants was 6 in 18 school systems. In all but two of the school systems, more than one professional person is responsible for the review of applications.

The type of professional person participat-

ing in the review of applications is of the utmost importance. The psychologist and the school administrator participate most frequently, 87 school systems reporting the use of these professions. The nurse and the teacher participate as reviewers in about one-half of the school systems, the social worker and the school counselor in about one-third. There is limited participation by such personnel as the director of special education and the vocational counselor.

In all school systems except 14, there was some type of medical participation in review of applications. It is surprising to find infrequent participation by certain medical specialists, especially the cardiologist and the pediatrician.

It is considered essential that there be a careful review of all handicapped children, not only prior to educational placement but also periodically during such placement and prior to withdrawal from such placement. The questionnaire asked for information on all three aspects. Ninety-six percent of the school systems indicated that they review all applications prior to placement, 85 percent do so periodically during placement, and 70 percent prior to withdrawal from placement. Inquiry was also made regarding the frequency of periodic review of the children during placement. At

Table 3. Frequency of review of all types of handicapped children during placement

Frequency of review	Regular class	Special day classes	Special day school	Special residential school	Home instruction	Hospital or convalescent home
Once a week.....				1	1	
Once a month.....				1	2	
Once every 6 weeks.....					1	
Once every 2 months.....		1				
Once every 3 months.....		1			1	1
Once every 4 months.....			1			
Twice a year.....	6	9	9		8	6
Once a year.....	25	33	20	7	25	10
Once every 2 years.....	2	7	1			1
Once every 2-3 years.....		2	1		1	
Once every 3 years.....	1	2	2			
As recommended by family physician.....					3	6
Left to staff of institution.....						2
No definite plan.....	18	18	11	9	14	15
Frequency not stated.....	1	2			3	
Prior to return to school.....					1	
Not done at all.....					2	
No information or not applicable.....	45	23	53	80	36	57
Total.....	98	98	98	98	98	98

least once a year, 45 percent of the school systems review children in special day classes, 39 percent review children on home instruction, 32 percent review children in regular class, 31 percent review children in special day school, 17 percent review children in special hospitals and convalescent homes, and 9 percent review children in special residential schools. The stated range of frequency of review varied from once a week (in one special residential school and on home instruction) to a complete lack of review for children on home instruction in two school systems (table 3).

Because it is recognized that "paper review" of children may not provide as complete a picture of the child, his progress, and his needs as a personal visit with the child and his family, the questionnaire asked if a team of personnel, either from the board of education or the department of health, sees and evaluates all handicapped children personally. Thirty-eight percent of the communities provide such a team, 35 percent do not, and 27 percent did not answer this question. The number of persons employed on a team basis for evaluation of the rheumatic fever or cardiac group vary from one person in about 10 percent of the communities to six persons in two communities. The majority of the communities provide a team of from one to three people as shown below.

<i>Number of personnel</i>	<i>Number of school systems</i>
One	9
Two	12
Three	8
Four	0
Five	1
Six	2
Team	1
Clinic	4

A psychologist and a physician (whose type was not stated) were most frequently on a team. Other personnel used with some degree of frequency were the teacher and the nurse. Community facilities were used rarely, and personnel such as social workers, school counselors, school physicians, and certain medical specialists (pediatrician and cardiologist) were used relatively infrequently. Another surprising finding was that a crippled children's clinic was reported as being used in only

two instances. In three communities, there was team evaluation of children with rheumatic fever or heart disease without any medical participation on the team. The type of personnel engaged in team review and the number of school systems reporting are shown below. Replies were received from 37 cities, 28 indicating that more than one person is used for evaluation.

<i>Type of personnel</i>	<i>Number of school systems</i>
Psychologist	11
Teacher	7
Administrator	5
Nurse	5
Therapist (type unspecified)	2
Director of special education	2
Counselor	2
Physical therapist	1
Social worker	1
Occupational therapist	1
Speech therapist	1
Medical:	
Type not specified	15
Cardiologist	4
School physician	3
Pediatrician	2
Medical director	1
Health department physician	1
Community facility used:	
Crippled children's clinic	2
Clinic physician	1
Consulting clinic	1
Diagnostic team	1

In approximately two-thirds of the public school systems, there is a department of special education with its own director. In approximately one-fifth of the public school systems, special education is a part of another department of the school system.

Of the 98 communities reporting, 50, or 51.1 percent, provide children with rheumatic fever or heart disease transportation to and from school, and 48, or 48.9 percent, do not. Sixteen communities provide attendant service during transportation, or 16.3 percent of the school systems reporting and 32 percent of the school systems providing transportation. In other words, 83.7 percent of the school systems reporting do not provide attendant service during transportation for this group of children, and 68.0 percent of school systems providing transpor-

tation for these children do not also provide attendant service.

Discussion

The foregoing data may be summarized as follows:

- All but 9 percent of the urban public school systems provide some school services for children who have rheumatic fever or heart disease.

- Educational placement of children with rheumatic fever or heart disease, other than regular class in regular school, is most frequently home instruction or special day class, or a combination of these.

- About one-half of the school systems provide placement by home instruction, one-quarter in a special day class, one-fifth in a hospital or convalescent home.

- Thirty-six communities, or 36 percent, provide just one type of educational placement.

- Most of the children are in regular class, with smaller numbers in home instruction, special day school, or special day class.

- In one-half of the communities, criteria for special educational placement have been established by the local board of education, with little participation of the local or State health department.

- In one-half of the communities, all applications for educational placement are reviewed separately by the board of education, and in one-fifth, this review is maintained jointly by the board of education and the department of health.

- In most school systems, applications for special educational placement are reviewed by more than one person, the most frequent disciplines being psychology and school administration. Although there is usually some medical participation, it is rarely a pediatrician or cardiologist.

- Most children are reviewed prior to placement, 85 percent are reviewed periodically during placement (although the frequency varies considerably), and 70 percent are reviewed prior to withdrawal from placement.

- About one-third of the communities provide for team evaluation of children with rheumatic fever or heart disease. The team is usually composed of one to three people, most fre-

quently a psychologist and a physician; infrequently, a cardiologist.

- One-half of the communities transport this group of children to school and one-third of the communities which supply transportation also give attendant service.

Thus the quantitative information indicates that there is less variety of special educational services for children with rheumatic fever or heart disease in most urban communities than for children who are orthopedically handicapped (3), and therefore less flexibility for them. But what of the qualitative information?

A study of 74 eighth grade children in special cardiac classes in one community in 1951 (45) indicated that 3 (4 percent) had no heart disease; 21 (28 percent) had possible and potential heart disease (patients in whom the symptoms or signs, though suggestive of heart disease, did not justify a definite diagnosis and from whom a history of an etiological factor which might cause heart disease was obtained); and 50 children (68 percent) had organic heart disease. Of the 50 children with organic heart disease, 37 had rheumatic and 13 had congenital heart disease. Two required no limitation of physical activity, and 39 were permitted to engage in all physical activities except violent competitive sports. Thus, 41 children with organic heart disease, 3 non-cardiacs, and 21 with possible and potential heart disease (a total of 87.9 percent) probably did not require placement in special classes on the basis of medical criteria. Of the remaining nine children with organic heart disease, significant restriction was indicated. Included in the nine were two children with tetralogy of Fallot, one with interventricular septal defect, three with rheumatic heart disease with marked cardiac enlargement, and three with organic disease who had active rheumatic fever less than 1 year prior to the examination.

A subsequent smaller study conducted in 1952 by the New York City Department of Health on all 19 children in two cardiac classes in an elementary school found 6 children (32 percent) were over-restricted, 1 was restricted insufficiently, and 12 children (63 percent) were appropriately placed. Of the 19 children, 13 had

rheumatic heart disease, 5 had congenital heart disease, and 1 had no heart disease.

An evaluation of 10 homebound cardiac children by a team composed of a pediatric cardiologist, a public health nurse, and a medical social worker found 6 children with heart disease (4 severe, 2 mild), 3 children with potential heart disease (history of rheumatic fever but no heart disease), and 1 child, a non-cardiac (6). Of the 10 children, 3 had rheumatic fever, 1 had congenital heart disease, 5 had rheumatic heart disease, and 1 was non-cardiac. Eight of the ten families visited needed public health nursing service, interpretation of illness, anticipation of developmental and emotional problems, and specific dietary and postural advice. Seven of the ten families needed casework service because of the length of time the children were homebound rather than the fact of the illness itself. Most families expressed an additional need for planned recreational programs for the cardiac homebound who is not confined to bed. There was also a need for vocational assistance among the adolescent children.

There is evidence to indicate that in some instances there may be erroneous information regarding the child's diagnosis; there may be inappropriate placement of the child, mostly in the direction of overplacement; and there may be over-restriction of a child's activities.

Recommendations

On the basis of these findings, certain specific recommendations may be made:

1. That each urban community have a range of special educational services for school children with rheumatic fever or heart disease, including special day class, home instruction, and teaching in a hospital or convalescent home.

2. That the local board of education and department of health jointly, with the assistance of professional experts from the various disciplines concerned (pediatrics, cardiology, education, public health nursing, social work, and vocational counseling), establish criteria for the special educational placement of these children.

3. That all applications for the placement of these children be reviewed by a team composed

of the various disciplines listed in the second recommendation prior to placement, periodically during placement (preferably every 3 months), and prior to withdrawal from special placement. Furthermore, it is recommended that children who are in regular classes and have had rheumatic fever or have heart disease be followed carefully. Whenever there is any question, the team should see the child and his family personally rather than rely upon "paper" information only.

4. Because of the need, children with rheumatic fever or heart disease who receive home instruction or are in a special day class or school should be considered a high priority group for public health nursing service.

5. Because of the difficulties of diagnosis, each large urban area should have at least one diagnostic and consultation service for children with rheumatic fever or heart disease to which practicing physicians, school health services, and well child conferences may refer these children for a diagnostic workup. This service might be provided by the local health department, the official crippled children's agency, a local hospital, or the school health service itself.

6. Because of the well-known value of prophylaxis against recurrences of rheumatic fever, it is recommended that school health service personnel periodically (preferably every 3 months) review the current status of each child with a verified history of rheumatic fever. When such a child is not on prophylaxis, school health service personnel should discuss this procedure both with the child's physician and the family.

7. Because of the rapid advances in diagnostic and surgical techniques any child who gives evidence of congenital heart disease and who has not been given an adequate diagnostic workup should be referred for this service.

8. Placement of children in other than regular classes in regular schools should be made only after it is clear that the child cannot possibly fit into this normal setting.

9. Recorded data with adequate information on the continuity of care from the treatment agent or agency is essential, if there is to be a clear picture of the child's course.

10. Wherever possible, the educational setting should be modified to fit the child rather than attempting to place the child in a setting which may be inappropriate.

Summary

Data on children with rheumatic fever or heart disease are extracted from findings of a national survey conducted in 1958 to ascertain the status of school services for all handicapped children in cities having a population of 100,000 or more. Wide variation exists in the range of services, policies, and personnel concerned. Recommendations are made to assure these children the benefit of essential services in all urban areas.

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The Yearbook of Agriculture, 1959

In the publication, "Food—Yearbook of Agriculture 1959," the U.S. Department of Agriculture presents 66 articles which represent a comprehensive range of approaches to the subject of food. Contributed by authorities in their respective fields, the articles are grouped under headings such as "The Nutrients," "Health," "Quality," "Preparation," "Costs," and "Trends."

For men, the editor, Alfred Stefferud, recommends articles such as "Nutritional Needs After 25," "What Your Food Money Buys," and "Feeding 6,280 Million." Titles of special interest to parents and teachers include "The Story of Nutrition," "A Table of Food Values," and "Habits—and More." Farmers are directed to "Quality in Animal Products," "Marketing, Quality, and Cost," and "Conserving Nutritive Values."

Also featured are "Adolescents and Young Adults," "Youth Learns About Food," and "Trends in Heights and Weights."

There are 736 pages, liberally illustrated with drawings, charts, and graphs, in the yearbook, the latest in the series of annual volumes that have been printed for 110 years.



Nutrition studies with human beings supplement research with laboratory animals. This group of young women and other such groups serve as volunteer squads to help nutrition researchers find out more about the relation of food to health. Under careful supervision the diet squad follows a rigidly controlled diet for many weeks. A variety of detailed analyses show how the body uses certain nutrients, whether the diet supplies enough of each, and how the nutrients depend upon each other in metabolism. Such studies of men and women of different ages are being carried out in laboratories throughout the country.



American Nurse in Moscow

"Are American policemen trained to deliver babies on the streets because American mothers can't afford to pay for the doctor?"

"Isn't it true that in America if a person has an acute attack of appendicitis and doesn't have the money on him to pay beforehand for the operation, he just has to die?"

"Why is it that in America if a worker has an industrial accident he is thrown out of the plant for good?"

Mrs. Rose G. Ernsberger, a Russian-speaking nurse officer of the Public Health Service, spent her summer answering these and similar questions on American public health practices at the American National Exhibition in Moscow. The exhibition enjoyed a daily attendance of some 60,000 Russians, of whom hundreds flocked to the public health exhibit to see and hear about medicine in the United States.

From 11 a.m. to 9:30 p.m. 7 days a week, Mrs. Ernsberger was subjected to a bewildering array of questions about American treatment of cancer, heart disease, hypertension, bronchial asthma, tuberculosis, stomach ulcers, and almost every other illness.

Each day, as soon as she stepped up to her lecture stand under the exhibition's geodesic dome and plugged in her microphone, a crowd gathered. "At first they were rather shy and stayed back from the platform as if they didn't know what to say. Then someone would gather his courage, rush up to the stand, and demand to know 'how do you treat such-and-such?' This signal would break the ice, and others would crowd around," according to the nurse.

"They wanted to know if we permit abortions, how we cure sterility, and what sort of aid we give to expectant mothers. The last question is especially important to Soviet workers, because mothers there have to work in

order to bring the family income up to some reasonable level. It was quite a revelation to them to hear from me that, although we do have annual sick leave, pregnancy allowances, and other benefits, we don't have any well-defined national system for pregnancy care because we Americans generally feel that mothers should stay home and take care of their children.

"Another question concerned day nurseries. Working mothers in the Soviet Union leave their children in such nurseries, which are common throughout the country. They wanted to know why we do not have many such nurseries. The answer was that our mothers take care of their own children. They seemed to understand that."

The Russians have been taught to believe that there is no free medical care in the United States and that good medical care in general is too expensive for the average working family to afford. Mrs. Ernsberger told them: "There are 26 million families in the United States with hospitalization insurance. Free medical care is given by Government hospitals, private clinics, and a variety of other public and private institutions. The decision whether a patient pays or not is made by public health nurses and social workers. Anybody in the United States can get medical care, whether he can pay for it or not."

Most of the Russian visitors to the exhibition believed the answers, but almost every group around her contained one or two hecklers. If they loudly expressed doubt, Mrs. Ernsberger would say, "I've been a nurse in America for 30 years and a public health nurse for 18. If you don't believe me, this doesn't hurt us Americans at all, because we still get the same splendid services. I know, because I live there."