THE STATE CHAIRMEN OF THE AMERICAN ACADEMY OF PEDIATRICS
HAVE BEEN RESPONSIBLE FOR THE CONDUCT OF THE STUDY IN THEIR
OWN STATES AND NOW FOR THE DEVELOPMENT OF STATE PLANNING
FOR THE IMPROVEMENT OF CHILD HEALTH

ALABAMA DR. CLIFFORD L. LAMAR, Birmingham ARIZONA DR. VIVIAN TAPPAN, Tucson ARKANSAS DR. EDWIN C. MCMULLEN, Pine Bluff CALIFORNIA Du. RUSSELL W. MAPES, Beverly Hills Da. A. LAWRENCE GLEASON, Oakland COLORADO DR. WILLIAM WILEY JONES, Denver CONNECTICUT Da. J. HAROLD ROOT, Waterbury DELAWARE DR. ROBERT O. Y. WARREN, Wilmington DISTRICT OF COLUMBIA DR. EDGAR P. COPELAND, Washington FLORIDA DR. GEORGE L. COOK, Tampa **GEORGIA** DR. W. WILLIS ANDERSON, Atlanta HAWAII DR. JOSEPH PALMA, Honolulu IDAHO DR. ROBERT S. MCKEAN, Boise ILLINOIS DR. EUGENE T. McENERY, Chicago INDIANA DR. ERNEST R. CARLO, Fort Wayne IOWA DR. JAMES E. DYSON, Des Moines KANSAS DR. BERTRAND I. KREHBIEL, Topeka KENTUCKY DR. W. W. NICHOLSON, Louisville LOUISIANA Dr. CLARENCE H. WEBB, Shreveport MAINE DR. ALBERT W. FELLOWS, Bangor MARYLAND DR. PAUL HARPER, Baltimore MASSACHUSETTS DR. JAMES M. BATY, Brookline MICHIGAN Dr. FRANK VAN SCHOICK, Jackson MINNESOTA DR. ROLAND E. NUTTING, Duluth MISSISSIPPI DR. HARVEY F. GARRISON, Jackson MISSOURI Da. HUGH L. DWYER, Kansas City DR. PARK J. WHITE, St. Louis

NEBRASKA Dr. J. HARRY MURPHY, Omaha **NEVADA** DR. LEMUEL R. BRIGMAN, Reno **NEW HAMPSHIRE** DR. COLIN C. STEWART, JR., Hanover **NEW JERSEY** DR. FREDERIC W. LATHROP, Plainfield NEW MEXICO DR. MELDRUM K. WYLDER, Albuquerque **NEW YORK** DR. WILLIAM J. ORR, Buffalo DR. THURMAN B. GIVAN, Brooklyn DR. FREDERICK H. WILKE, New York NORTH CAROLINA DR. CHARLES R. BUGG, Raleigh NORTH DAKOTA DR. RALPH E. DYSON, Minot OHIO DR. BENJAMIN HOYER, Cincinnati **OKLAHOMA** DR. JULIAN FEILD, Enid **OREGON** DR. CARL G. ASHLEY, Portland PENNSYLVANIA DR. THEODORE S. WILDER, Philadelphia DR. WILLIAM W. BRIANT, JR., Pittsburgh RHODE ISLAND DR. WILLIAM P. BUFFUM, Providence SOUTH CAROLINA DR. WILLIAM WESTON, JR., Columbia SOUTH DAKOTA DR. GOLDIE ZIMMERMAN, Sioux Falls TENNESSEE DR. GILBERT J. LEVY, Memphis TEXAS DR. BRUCE A. KNICKERBOCKER, Dallas DR. FRANK H. LANCASTER, Houston UTAH DR. JOHN A. ANDERSON, Salt Lake City VERMONT DR. PAUL D. CLARK, Burlington VIRGINIA DR. JAMES B. STONE, Richmond WASHINGTON DR. FRANK H. DOUGLASS, Seattle WEST VIRGINIA DR. RUSSELL C. BOND, Wheeling

DR. H. KENT TENNEY, JR., Madison

DR. PAUL W. EMERSON, Cheyenne



DR. ARCHIE L. GLEASON, Great Falls

PREPARED FOR THE AMERICAN ACADEMY OF PEDIATRICS BY ITS COMMITTEE FOR THE IMPROVEMENT OF CHILD HEALTH

1740 Bainbridge Street Philadelphia 46, Pennsylvania

THIS MATERIAL is based on a nation-wide study of child health services by the American Academy of Pediatrics with the cooperation of the United States Public Health Service and the United States Children's Bureau, but it is not a summary of that study. The study, completed in 1948, is the first comprehensive inventory and analysis of services of physicians and dentists in private practice, of hospitals and community health agencies both official and voluntary, and of pediatric education in medical schools, ever undertaken for the United States.

The present brochure offers some suggestions for the improvement of child health services, based upon the findings of the study. For an understanding of the conditions leading to these proposals, the reader is referred to the full account of the study. Child Health Services and Pediatric Education, to be published early in 1949 by The Commonwealth Fund, 41 East 57th Street, New York 22, N. Y.

> Copyright 1948, The American Academy of Pediatrics Oppor Illustration, P. S, and upper right, P.6 , courtesy of The Children's Hospital of Philadelphia.

Original at Gartner Pediatric History Center: aap.org/pediatrichistorycenter

PRESIDENT-FLECT

JOHN A. TOOMEY, M.D. WARREN R. SISSON, M.D. CLIFFORD G. GRULEE, M.D. SECRETARY & TREASURER

Committee for the Study of Child Health Services

WARREN R. SISSON, M.D., Boston, Mass., Chairman

ALLAN M. BUTLER, M.D., Boston, Mass.

HARVEY F. GARRISON, M.D., Jackson, Miss.

HENRY F. HELMHOLZ, M.D., Rochester, Minn.

LEE FORREST HELL, M.D., Des Moines, Iowa

JOSEPH I. LINDE, M.D., New Haven, Conn.

ARTHUR H. LONDON, JR., M.D., Durham, N. C.

JOSEPH S. WALL, M.D., Washington, D. C.

JAMES L. WILSON, M.D., Ann Arbor, Mich.

Committee for the Improvement of Child Health

JAMES L. WILSON, M.D., Ann Arbor, Mich., Chairman

LEE FORREST HILL, M.D., Des Moines, Iowa

ROGER L. J. KENNEDY, M.D., Rochester, Minn.

HENRY G. PONCHER, M.D., Chicago, Ill.

GROVER F. POWERS, M.D., New Haven, Conn.

WARREN W. QUILLIAN, M.D., Miami, Fla.

HULDA E. THELANDER, M.D., San Francisco, Cal.

CLARENCE H. WEBB, M.D., Shreveport, La.

GEORGE M. WHEATLEY, M.D., New York, N. Y.

THE PRESIDENT, PRESIDENT-ELECT AND SECRETARY: Ex Officio

JOHN P. HUBBARD, M.D.

Director, Committee for the Study of Child Health Services Director, Committee for the Improvement of Child Health

> THE CHILDREN'S HOSPITAL OF PHILADELPHIA 1740 BAINBRIDGE STREET PHILADELPHIA 46, PA.

RIVATE MEDICINE is being challenged as never before to assure that medical services of high quality are available to all children.

The American Academy of Pediatrics, representing that branch of the medical profession specializing in the care of children, is convinced that the doctors who give the care should undertake greater responsibility in planning for the improvement of child health.

The first step toward intelligent planning is to get the facts. This step has been taken.

The next step—a far more serious and difficult one—is to act upon the findings.

Recognizing that many other organizations and individuals are actively concerned with the problems of child health, the Academy's Committee for the Improvement of Child Health invites comment and suggestions on the objectives it has outlined in this pamphlet.

HERE ARE 36,000,000 children under 15 years of age in the United States; one in every four persons is a child.

Some 13,000,000 of the nation's child population live in isolated counties, far removed from large urban centers.

The health of adults depends in no small degree upon the medical attention they receive in childhood.

Cures for cancer, heart disease, mental illness—important in themselves—are less vital to the nation's well-being than the over-all health of our children.

Every eight seconds throughout the year a new life begins. Its first 24 hours are the most crucial in the infant's entire life.

A child's very chance of survival depends upon the availability and quality of medical care during its first days of existence—a third of the 111,000 infant deaths in 1946 occurred in their first 24 hours. Nearly three-fourths of the first year's toll occurs within the first month of life.

Among children, disabling disease strikes far more often than in any other age group excepting our grandparents.

How to make good medical care available to all infants and children, no matter where they live or what their circumstances, is the number one health problem of this country.



Our Children Are Among the World's Healthiest, but-

Three babies died for every 2 soldiers killed in action during World War II . . .

Rheumatic fever kills more school age children than any other disease. It is second only to accidents as the leading cause of death in this age group...

Nearly 40,000 prematurely born babies die in a year—with better prenatal care and prompt use of proven methods of care of the baby, there is reason to believe that many could be saved...

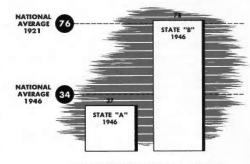
While in some states nearly 100% of all infants receive hospital protection at birth, over 100,000 babies still enter life each year with no medical attention of any kind and in some states only half the babies are born in hospitals...

In some counties where modern medical services are scarce, 5 times as many infants die as in more favored communities...

A child's chances of survival depend largely upon where he lives and the circumstances of his parents.

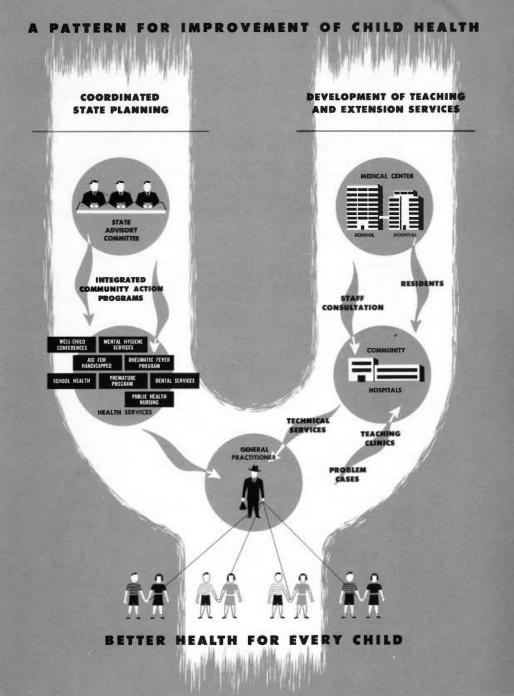
Infant mortality provides a useful index of the general health of a state or community.

Some states still have a long way to go toward improving child health. In one state, infant mortality is as high today as the national average was a quarter century ago.



INFANT DEATHS UNDER 1 YEAR OF AGE PER 1,000 LIVE BIRTHS

Must We Accept These Deaths As Inevitable Debits On The Ledger Of Life?



THE END RESULT

NHERENT in all medical schools is a unique potential for rendering medical services over and above the actual training of physicians. The very nature of medical training—by the preceptor method, whereby doctors in training work under the tutelage of able specialists in the clinic, hospital ward, the amphitheater, and in the district home visiting services—provides medical services of high caliber to people in the neighboring communities.

Indeed it has become almost axiomatic that the health level of both rich and poor is higher in communities where medical teaching is done than in communities where there are no medical training centers.

The principle of decentralized training is to bring medical teaching to remote communities—to establish a circle of secondary teaching centers around a university medical school. Recently graduated doctors are rotated as residents through periods of service in outlying community hospitals which thereby become satellite teaching centers, drawing upon the staff and facilities of the university. A senior member of the pediatric staff of the medical school periodically visits each of the affiliated hospitals in the system.

Decentralized training therefore not only produces better trained physicians but closes the gap or lag between the discovery of new techniques and the application of these techniques to children in the most remote areas. It keeps physicians in outlying areas abreast of latest developments. New services such as special diagnostic aid become available to outlying hospitals. Also, new hospitals being constructed under the Hospital Survey and Construction Act will, through affiliation under the decentralized plan, find resident staffs more readily available.

Finally, the training of graduate medical students themselves is broadened by their experience in rural hospitals and such experience induces them to remain in rural communities to practice. THE FULL Benefits

OF MODERN
MEDICAL CARE



ARE NOT

AVAILABLE TO

ALL CHILDREN



WHAT IS MODERN MEDICAL CARE?

IT IS MADE UP OF ...

PRIVATE PRACTICE 77% HOSPITAL CARE 20% HOME AND OFFICE CARE IN CLINICS AND HEALTH CENTERS 100% 77% 20%

Original at Gartner Pediatric History Center:

aap.org/pediatrichistorycenter

FIRST STEPS

1

Strengthening of basic teaching budgets of medical school pediatric departments toward better preparation of medical students in the care of sick children and in the health supervision of well children.

2

Extension of medical teaching and services to outlying areas.

3

Provision of fellowships for graduates who cannot otherwise afford to acquire thorough hospital training in pediatrics prior to entering practice.

4

Coordination of decentralized medical education and services with action programs within the states, as well as with such projects as the Hospital Survey and Construction Program.

THE OBSTACLES

Medical Schools, financially hard pressed, find it difficult to maintain even present standards

"Unless there is general recognition of the need for more adequate support of medical schools, deterioration of the standards of medical education and medical research will ensue."—EDITORIAL, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 133:1158, April 12, 1947

"The future of medical care and public health depends upon medical education... Good medical education is the most expensive form of professional training... Few if any of the 70 recognized medical schools can be confident, with present resources, of maintaining in the future their programs at the essential high level."—STATEMENT BY 19 UNIVERSITY PRESIDENTS, March 15, 1947

Pediatric Departments especially are underfinanced

Only a few of the 70 schools have incomes that approach adequacy for pediatric teaching. Expenditures per student range from \$741 down to \$4!

Half of the pediatric department budgets are less than \$25,000 each; ¼ are less than \$8,000.



PEDIATRIC BUDGET PER STUDENT \$300 or more (10 schools)









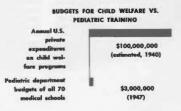
s than \$25 (13 schools



Programs for child care must give more consideration to the training

For every dollar that private charities annually spend on child health and welfare programs, only 3¢ is spent on the training of doctors in child care.

of doctors responsible for that care



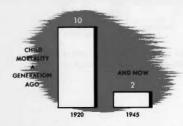
IT BRINGS TO THE CHILD ...



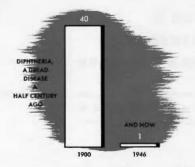
1. Better trained doctors

- 4. New and life-saving drugs
- 2. New knowledge from research
- 5. Immunization and other programs of preventive medicine
- 3. Improved diagnostic aids
- 6. More and better hospital and clinical care
- 7. Improved sanitation and other public health services

IT SAVES CHILD LIVES...



DEATHS PER 1,000 CHILDREN AGED 1-4



DIPHTHERIA DEATHS REPORTED
PER 100,000 POPULATION

BUT ...

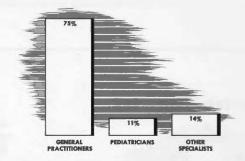
Modern medicine is effective only to the degree in which it is applied



First: For General Practitioners as well as Specialists - - -

THE GENERAL PRACTITIONER

Three-fourths of the private care of children of the nation is in the hands of the general practitioner.



PROPORTION OF CHILD CARE BY GENERAL PRACTITIONERS, PEDIATRICIANS, AND OTHER SPECIALISTS

THE PEDIATRICIAN

Pediatricians are increasing rapidly in number and their role is an important one. But their services are principally limited to children in and near metropolitan areas.

Three-quarters of the nation's practicing pediatricians are in cities of 50,000 or more population; 1/2 in communities having medical schools. One-third are located in Massachusetts, New York, and Pennsylvania.



FIGURES SHOW NUMBER OF PEDIATRICIANS IN EACH STATE

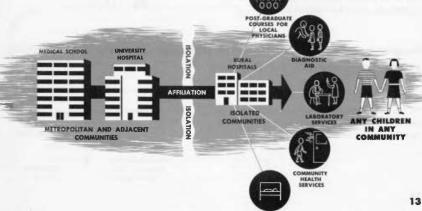
receives guidance and sureness in applying his learning to actual child problems before he is entirely "on his own." Financial aid in the form of fellowships is required if these students are to round out their training as hospital interns and residents.

- C. Rural hospital experience. Already well-trained, the graduate in his second year is assigned as a resident for short periods to outlying hospitals. His base still, however, is the university medical center. In these outlying hospitals he serves while he learns. Affiliation of hospitals with medical schools brings definite advantages along with the responsibility for training. It brings from the medical center visiting specialists, post graduate instruction that benefits local practicing physicians as well as the resident. The hospital's diagnostic and laboratory services are enhanced if not actually acquired for the first time. All of these services increase the hospital's usefulness to communities surrounding it.
- D. The doctor embarks on practice soundly trained and already seasoned in child care.

SECOND "DECENTRALIZING" GRADUATE TRAINING—Hospitals in outlying communities, by accepting graduate students for resident training will be brought in close touch with metropolitan services.

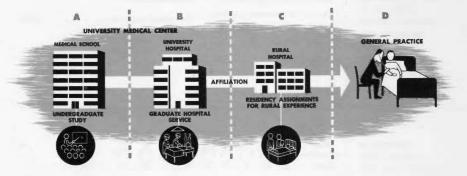
> With encouragement, many outlying hospitals can become affiliated with medical schools. Weekly visits of specialists from the medical center and from regional hospitals serving as "half way" stations bring special services of pediatricians, pathologists, etc. that these hospitals cannot afford to maintain alone.

Affiliation with a medical center brings modern medical care to isolated communities



The Road to better medical care begins at the Medical School...and extends, thru affiliation of the schools with outlying hospitals, into the remotest communities

FIRST BETTER TRAINING—It must be made possible for physicians—both general practitioners and specialists—to acquire more hospital experience in child care through the strengthening of their undergraduate and graduate pediatric training.



• Undergraduate clinical teaching in wards, amphitheaters, and outpatient departments fixes in the student's mind the practical use of his classroom knowledge. It must be strengthened by providing him with more clinical instruction. That means more clinical teaching hours and that means more money to recompense teachers who can therefore afford to take more time away from their own practice to teach. While a few schools do provide 300 hours of clinical teaching in pediatrics for undergraduates, the average is only 161 and one school provides only 28 which means that students are graduated from this school having received a total of only 28 hours of actual contact with child patients in wards and outpatient clinics.

The consequent strengthening of clinical teaching staffs would also stimulate research. Research is a valuable end in itself but also, students of research-minded faculty themselves acquire an investigative and questioning spirit toward medical problems that they carry with them into practice to the benefit of themselves, their patients, and the profession.

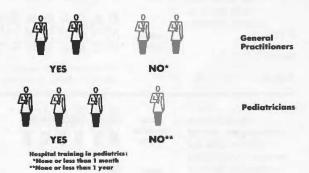
B. Graduate hospital work. Too many students cannot afford to continue in hospital work after graduation yet this is the part of their training in which the doctor-patient relationship may be established under faculty supervision. The student thereby

... There is Required Better Medical Preparation for Child Care

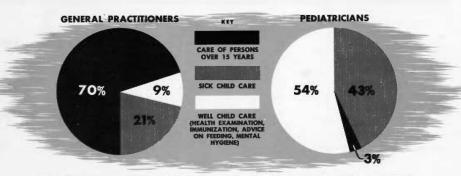
According to reports from the general practitioners themselves, nearly half have had virtually no hospital training in child care; and ¼ of the pediatricians have had little hospital training in the medical care and health supervision of children. Thus both general practitioners and pediatricians to a large extent have had to learn the hard way after entering practice.

HOSPITAL TRAINING IN THE CARE OF CHILDREN

Intern or resident service in a hospital is the young doctor's most valuable period of practical training. Carable period of practical training. Carable period of practical training carable supervision, is an essential preparation for actual practice; the doctor learns how to meet and treat the problems he will soon encounter with his own patients.



. . . And the general practitioner who is principally responsible for protecting the health of children actually has little time for preventive measures



PER CENT OF PRACTICE DEVOTED TO HEALTH SUPERVISION OF WELL CHILDREN

OF SERVICES FOR CHILD CARE

Second: Complete medical care is not available to all children

There are 36,000,000 children under 15 years of age in the United States. Thirteen million children, a third of the total, live in isolated counties.

CHILDREN IN OR **NEAR CITIES RECEIVE** 50% MORE CARE THAN THOSE IN ISOLATED COUNTIES

Metropolitan and Adjacent Counties					Ģģģģģ	
------------------------------------	--	--	--	--	--------------	--

Number of children, in every 1,000, under the medical care on an average day of: physicians, hospitals, and clinics

THE 12 LARGEST METROPOLITAN CENTERS HAVE 6 TIMES THE NUMBER OF PHYSICIANS IN RELATION TO CHILD POPULATION AS DO THE OUTLYING AREAS





1

15

10

Isolated Rural

Greater

Counties

Number of physicians per 1,000 children

ELEVEN TIMES AS MANY BEDS ARE RESERVED FOR CHILDREN IN ONE STATE AS IN ANOTHER



2.40

0.21

Number of beds, per 1,000 children, that are set aside for children in general hospitals

Children in some areas receive only a fraction of medical care rendered to children in other areas.

They are handicapped particularly in specialist care, clinic care and the highly skilled diagnostic and treatment services.

OVER A THIRD OF OUR CHILDREN ARE CARED FOR IN HOSPITALS WHICH ARE THEMSELVES INADEQUATELY STAFFED AND FOUIPPED

A large part (46%) of the hospital care is in hospitals where infants are not separated from older children who are sick. And often -1/4 of the time-children are in wards with sick adults.

Proportion of children cared for in hospitals where there is-

No resident house staff 38%

No graduate nurse constantly on duty in pediatric unit 37%

19%

No special clinical laboratory service

CHILDREN IN **OUTLYING AREAS** DO NOT HAVE FULL BENEFITS OF PREVENTIVE MEDICINE



kolated Rural



Number of children in every 1,000 under 5 yrs., under health supervision on an average day by private practitioners and well-child conferences

DEFICIENCIES IN **DENTAL CARE TOO** ARE ESPECIALLY MARKED IN **ISOLATED COUNTIES**

Metropolitan and Adjacent Counties





Isolated Counties



Number of children in every 1,000, under private and clinical dental care on an average day

2