

U. S. DEPARTMENT OF LABOR

JAMES J. DAVIS, Secretary

CHILDREN'S BUREAU

GRACE ABBOTT, Chief

THE PROMOTION OF THE WELFARE
AND HYGIENE OF MATERNITY
AND INFANCY

THE ADMINISTRATION OF THE ACT OF CONGRESS
OF NOVEMBER 23, 1921

FISCAL YEAR ENDED JUNE 30, 1925

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THE PROVISION OF THE WILLIAMS
AND BRYANT OF MATERIALS
AND THE LAW

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CONTENTS

	Page
Letter of transmittal.....	v
Introduction.....	1
Funds available under the act.....	1
The Federal Board of Maternity and Infant Hygiene.....	3
State administration.....	4
Summary of State activities.....	4
Child-health conferences.....	5
Child-health centers.....	6
County health units.....	6
Home visits.....	7
Nutrition work.....	8
Dental hygiene.....	9
Correction of defects.....	9
Prenatal care.....	10
Care during confinement.....	10
Midwives.....	12
Inspection of maternity and infant homes.....	12
Instruction of mothers.....	13
Little mothers' classes.....	14
Birth and death registration.....	14
General educational work.....	16
Personnel of the administrative staffs.....	17
Principal activities of the individual States.....	19
Alabama.....	23
Arizona.....	23
Arkansas.....	24
California.....	25
Colorado.....	26
Delaware.....	27
Florida.....	28
Georgia.....	29
Idaho.....	30
Indiana.....	31
Iowa.....	32
Kentucky.....	33
Louisiana.....	34
Maryland.....	35
Michigan.....	36
Minnesota.....	37
Mississippi.....	39
Missouri.....	40
Montana.....	41
Nebraska.....	41
Nevada.....	42
New Hampshire.....	42
New Jersey.....	44
New Mexico.....	45
New York.....	46
North Carolina.....	48
North Dakota.....	49
Ohio.....	49
Oklahoma.....	50
Oregon.....	51
Pennsylvania.....	52

State administration—Continued.	
Principal activities of the individual States—Continued.	Page
Rhode Island.....	53
South Carolina.....	54
South Dakota.....	55
Tennessee.....	55
Texas.....	56
Utah.....	57
Vermont.....	58
Virginia.....	58
Washington.....	59
West Virginia.....	60
Wisconsin.....	61
Wyoming.....	61
Federal administration.....	63
Federal staff.....	63
Conference of State directors.....	63
Research and educational work.....	64
Standards for physicians conducting conferences in child-health centers.....	64
Standards of prenatal care.....	65
Community control of rickets.....	65
Rickets in children in the District of Columbia.....	66
Stillbirths and neonatal deaths.....	66
Neonatal and maternal mortality in Tennessee in relation to the attendant at birth.....	67
Infant and maternal morbidity and mortality in Idaho.....	67
The effect of posture on physical fitness.....	67
Care for crippled children.....	68
Milk, the indispensable food for children.....	68
Nursing-service demonstration in Utah.....	68
Educational work among midwives in New Mexico.....	68
Educational work among midwives in Tennessee and Georgia.....	69
Prenatal letters.....	69
News-letters.....	69
Publications.....	69
Motion pictures, lantern slides, and exhibit material.....	70
Appendixes:	
A.—Text of the act for the promotion of the welfare and hygiene of maternity and infancy.....	73
B.—List of administrative agencies and officers.....	76
C.—Maternal and infant mortality rates.....	78
D.—Publications of the Children's Bureau bearing upon maternal, infant, and child welfare and hygiene.....	80

MAPS

States accepting the benefits of the act.....	Frontispiece
The birth-registration area (1925).....	15
The death-registration area (1925).....	15
Child-health and prenatal conferences and centers.....	18

LETTER OF TRANSMITTAL

U. S. DEPARTMENT OF LABOR,
CHILDREN'S BUREAU,
Washington, February 11, 1926.

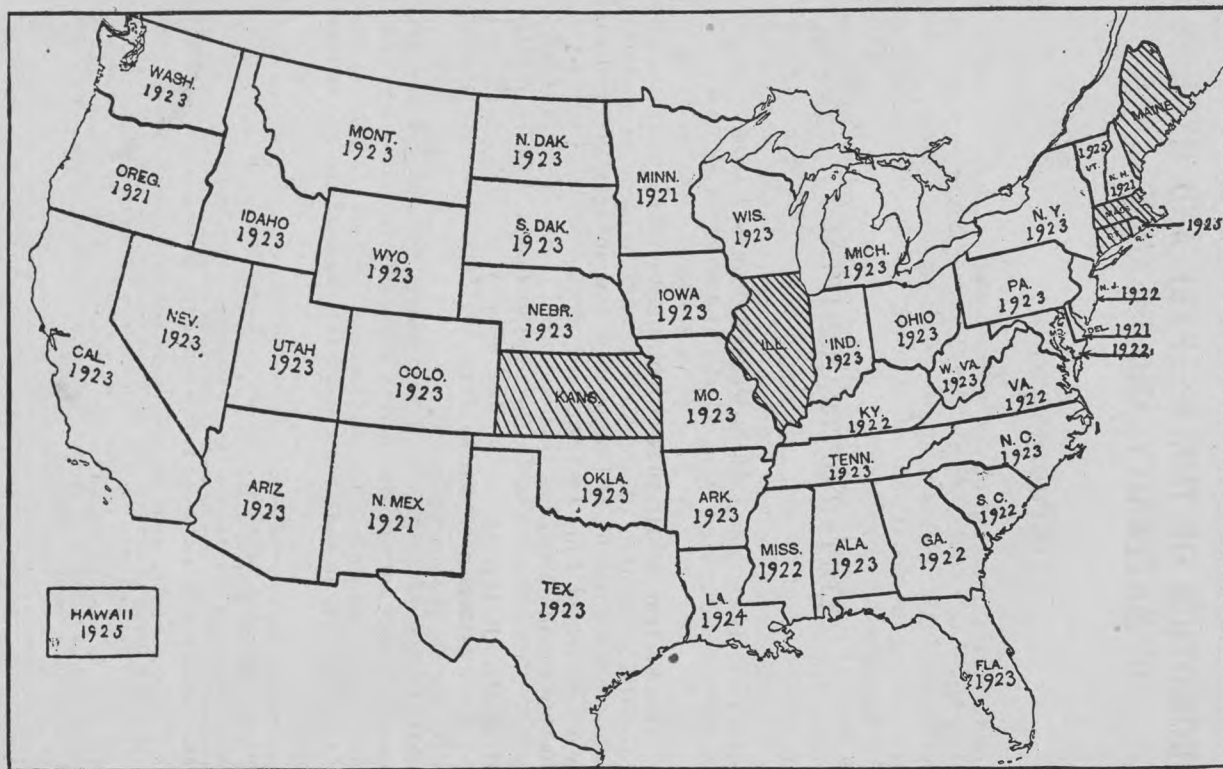
SIR: There is transmitted herewith a report of the activities undertaken for the promotion of the welfare and hygiene of maternity and infancy under the act of Congress of November 23, 1921, during the fiscal year ended June 30, 1925.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

Hon. JAMES J. DAVIS,
Secretary of Labor.

v



STATES ACCEPTING THE BENEFITS OF THE ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY, WITH DATES OF LEGISLATIVE ACCEPTANCE

[Diagonal lines indicate States not cooperating]

THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY

INTRODUCTION

The act for the promotion of the welfare and hygiene of maternity and infancy of November 23, 1921, popularly known as the Sheppard-Towner Act, makes available to the States Federal funds to aid in reducing maternal and infant mortality and in promoting the health of mothers and infants.¹

At the close of the fiscal year 1925 all the States except Connecticut, Illinois, Kansas, Maine, and Massachusetts were cooperating under the provisions of the act. By action of the Sixty-eighth Congress its benefits had also been made available to and accepted by the Territory of Hawaii; and official requests, not yet acted upon by Congress, have been received from Alaska and Porto Rico.

FUNDS AVAILABLE UNDER THE ACT

The funds authorized by the maternity and infancy act became available in March, 1922. The administration of the funds from that date to June 30, 1924, has been reported.² The accompanying table shows the amounts available, the total amounts accepted by the States from the appropriations for the fiscal years 1922, 1923, and 1924, and the amounts accepted to June 30, 1925, from the appropriation for the fiscal year 1925.

Under the terms of section 2 of the maternity and infancy act "so much of the amount apportioned to any State for any fiscal year as remains unpaid to such State at the close thereof shall be available for expenditures in that State until the close of the succeeding fiscal year."³

¹ See footnote 1, table, p. 2. For text of the law see Appendix A, pp. 73-75.

² The Promotion of the Welfare and Hygiene of Maternity and Infancy. U. S. Children's Bureau Publications Nos. 137 and 146. Washington, 1924 and 1925.

³ In this connection reference may be made to rulings of the Comptroller General of the United States Treasury in regard to the appropriations for carrying out the maternity and infancy act:

"That any interest accruing while the moneys are held by the States inures to the benefit of the United States as owner of the funds and not to the States as trustees and should be accounted for and paid into the United States Treasury accordingly. The law does not contemplate, however, that the money shall be held by the States and bear interest, but shall be promptly applied to the purpose for which furnished, and the amounts should not be furnished in amounts necessarily resulting in large sums being held and thus bearing interest." (May 12, 1922.)

"That in case the State fails to appropriate an amount specifically equal to the amount of the allotment authorized by the Federal appropriation, moneys applied to the same purpose through other State appropriations may not be considered as making the appropriated funds of the State equal to the allotments authorized by the Federal appropriation unless it is established that the fact that the other appropriation was available for the 'services and facilities provided for in this act' controlled the State legislature in making its specific appropriation, in which case there would be justification for considering these moneys in determining that the amount appropriated by the State is equal to the Federal allotment." (June 23, 1923.)

Amounts available¹ to States² from Federal maternity and infancy funds and amounts accepted³

[Statement as of Dec. 31, 1925]

States	Maximum amounts available from 1922 appropriation ⁴	Amounts accepted by States from 1922 appropriation	Maximum amounts available from 1923, 1924, 1925, and 1926 appropriations	Amounts accepted by States from—			
				1923 appropriations	1924 appropriations	1925 appropriations ⁵	1926 appropriations ⁵
Alabama	\$10,297.56	\$10,297.56	\$25,836.95	\$25,836.95	\$25,836.95	\$25,836.95	\$25,836.95
Arizona	5,753.88	5,000.00	12,253.71	5,000.00	12,253.71	12,253.71	5,000.00
Arkansas	8,953.03	5,000.00	21,817.51	6,855.75	16,817.51	13,500.00	12,000.00
California	12,731.12	(⁶)	33,112.01	24,279.35	13,114.93	15,620.00	23,730.00
Colorado	7,119.83	5,000.00	16,337.20	9,976.99	9,999.33	10,000.00	5,000.00
Connecticut	8,114.75	8,114.75	19,311.48	19,311.48			
Delaware	5,503.10	5,503.10	11,504.01	11,504.01	11,504.01	11,504.01	11,504.01
Florida	7,184.90	5,000.00	16,531.72	8,621.28	16,531.72	16,531.72	5,000.00
Georgia	11,533.10	6,750.00	29,530.55	11,000.00	15,250.00	28,490.00	5,000.00
Hawaii			(²)			11,725.96	5,000.00
Idaho	5,974.30	5,000.00	12,912.66	6,250.00	7,912.66	5,691.60	8,000.00
Illinois	19,631.03	(⁶)	53,739.10				
Indiana	11,611.07	8,199.09	29,763.62	24,995.00	26,250.00	25,750.00	25,000.00
Iowa	10,423.56	10,423.56	26,213.60	26,213.60	26,213.60	26,213.60	26,213.60
Kansas	8,991.51	8,991.51	21,932.52	12,097.33			
Kentucky	10,452.00	10,452.00	26,298.64	26,298.64	26,298.64	26,298.64	26,298.64
Louisiana	9,057.50		22,129.80		20,190.60	22,129.80	5,000.00
Maine	6,732.66		15,179.77				
Maryland	8,270.49	7,913.57	19,777.05	19,277.05	19,277.05	19,277.05	19,277.00
Massachusetts	13,691.06		35,981.70				
Michigan	13,276.07	13,253.97	34,741.11	34,741.11	34,741.11	34,741.11	34,741.11
Minnesota	10,385.44	10,385.44	26,099.65	26,099.65	26,099.65	25,974.65	26,000.00
Mississippi	9,039.70	9,039.70	22,076.58	22,076.58	22,076.58	22,076.58	17,038.29
Missouri	12,679.67	12,473.15	32,958.19	28,527.38	21,762.17	31,000.00	5,000.00
Montana	6,238.31	6,238.31	13,701.91	13,701.91	13,701.91	13,701.91	13,700.00
Nebraska	7,924.66	7,924.66	18,743.21	17,661.69	7,409.50	11,915.00	8,845.00
Nevada	5,174.63	5,000.00	10,522.06	5,000.00	10,522.00	10,522.00	10,522.00
New Hampshire	5,999.61	5,000.00	12,988.31	5,000.00	12,988.31	12,988.31	12,988.31
New Jersey	12,119.83	12,119.83	31,284.55	31,284.55	31,284.55	31,284.55	31,284.55
New Mexico	5,812.96	5,812.96	12,430.33	12,430.33	12,430.33	12,430.33	12,430.33
New York	28,429.70		80,041.78		80,041.78	80,041.78	80,041.78
North Carolina	10,773.47	10,773.47	27,259.66	27,259.66	27,259.66	27,259.66	27,259.66
North Dakota	6,459.36	5,000.00	14,362.74	6,000.00	6,000.00	7,400.00	5,000.00
Ohio	17,993.41	7,187.95	48,843.46	11,900.00	22,000.00	43,843.46	5,000.00
Oklahoma	9,575.88	5,000.00	23,679.48	5,000.00	20,934.06	23,679.48	23,679.48
Oregon	6,767.35	6,232.61	15,283.46	8,000.00	15,283.46	15,283.46	5,000.00
Pennsylvania	24,672.69	24,667.12	68,810.99	68,810.20	68,810.99	68,810.99	68,810.99
Rhode Island	6,363.54		14,076.28		4,999.86	14,076.28	5,000.00
South Carolina	8,798.54	8,797.50	21,355.65	21,355.65	21,355.65	21,355.47	13,200.00
South Dakota	6,436.07	6,436.07	14,293.11	12,844.24	14,293.11	14,293.11	5,000.00
Tennessee	10,274.35	5,000.00	25,767.55	18,521.94	22,410.73	25,767.55	5,000.00
Texas	15,520.41	9,363.93	41,450.52	32,567.38	40,689.20	41,450.52	35,350.52
Utah	6,013.85	5,000.00	13,030.89	6,365.00	13,000.00	13,000.00	5,000.00
Vermont	5,795.09	(⁶)	12,376.90		2,775.33	5,000.00	5,000.00
Virginia	10,209.61	10,209.61	25,574.00	25,574.00	25,574.00	25,574.00	25,574.00
Washington	8,060.58	4,998.70	19,149.55	10,000.00	10,000.00	10,000.00	5,000.00
West Virginia	8,302.16	5,000.00	19,871.74	5,000.00	10,000.00	10,000.00	19,871.74
Wisconsin	10,938.04	8,995.03	27,751.62	27,750.44	27,751.62	27,751.62	5,000.00
Wyoming	5,438.57	4,998.87	11,311.12	5,000.00	11,000.00	6,600.00	5,000.00
Total	477,500.00	316,554.02	1,190,000.00	716,333.40	884,452.34	958,644.81	732,197.96

¹ Under the terms of the act each State accepting receives \$5,000 outright; additional funds are granted if matched—\$5,000 to each State and balance of the appropriation distributed among the States on the basis of population.

² On Mar. 10, 1924, the benefits of the act were extended to Hawaii. The amount available for 1925 and 1926 is \$11,725.96, thus increasing the total available to the States and to Hawaii from \$1,190,000 to \$1,201,725.96.

³ Amounts shown are the amounts actually accepted by the States through Dec. 31, 1925, less refunds of unexpended balances returned to the Federal Treasury as of Dec. 31, 1925.

⁴ Owing to the fact that only a few months of the 1922 fiscal year remained at the time the appropriation act for that year was passed a full appropriation was not made.

⁵ The 1925 funds are available until July 1, 1926, and the 1926 funds until July 1, 1927. Actual acceptances through Dec. 31, 1925, are here given.

⁶ California and Illinois accepted the full amount available, and Vermont accepted \$5,000. However, these funds were not spent but were returned to the Federal Treasury.

THE FEDERAL BOARD OF MATERNITY AND INFANT HYGIENE

Section 3 of the act creates a Federal Board of Maternity and Infant Hygiene, to consist of the Chief of the Children's Bureau, the Surgeon General of the Public Health Service, and the United States Commissioner of Education. At its first meeting (April, 1922) this board elected as its chairman the Chief of the Children's Bureau, who has continued to serve in that capacity.

Section 8 of the act provides that to receive the benefits of the act detailed plans for carrying out the provisions of the act within the State must be submitted to the Children's Bureau and be subject to approval by the board. It is specified, however, that "if these plans shall be in conformity with the provisions of this act and reasonably appropriate and adequate to carry out its purposes they shall be approved by the board." (Sec. 8, Appendix A, p. 74.)

Thus plans originate in the States and are administered by the States. The policy of the Federal board has been to consider each plan in the spirit of the act, and it has not attempted to control or influence the activities to be undertaken. It has interpreted the term "infancy" as ending with the preschool period, which means that the funds are not available for work with school children, and has ruled that Federal funds or State funds used in matching Federal funds can not be expended in subsidies to private agencies.

STATE ADMINISTRATION

SUMMARY OF STATE ACTIVITIES

Activities previously begun have spread over a greater territory, and many new activities have been initiated. Continued progress in the maternity and infancy work is thus indicated by the reports from the States. The aim of these activities centers as heretofore in better infant care, to be accomplished through the instruction of mothers; better care for mothers, to be accomplished through wider instruction in regard to the importance of skilled supervision during pregnancy, childbirth, and the lying-in period; and the stimulation of medical and nursing facilities in order that adequate maternity and infancy supervision may be available to a greater proportion of the population than at present.

The programs undertaken in the different States have of necessity varied considerably because of varying conditions in the States. The individual communities need, in general, to be helped in determining what standards they should set for themselves, and in organizing their own resources. To have communities educated to the point of demanding and making use of medical, dental, and nursing service is a necessary prerequisite to the improvement of such service and to its initiation in regions where little or none is yet available.

The difficulty of carrying the benefits of a maternity and infancy program to all parts of a State or region involves some problems yet to be solved. Frequently there is a natural tendency to direct a large part of any work of this nature toward that part of the community which presumably would not be able to pay for medical attention or nursing service, in spite of the fact that any educational work is assumed to be done for the general public, regardless of the financial status of those instructed. In one city the result of this was noted recently in connection with the fact that the death rate among the infants of foreign parentage and in the poorer parts of the community has been reduced by more than one-half within the last few years, while in the sections of the community consisting of people who presumably could afford the services of a physician the infant death rate has been rising. In other words, the indigent portion of the community had learned the value of medical supervision for their children, but the members of this same community who apparently enjoyed better economic conditions had not been taught the importance of such supervision at all.

Environmental factors play so large a part that the results of a maternity and infancy program toward reducing infant mortality are constantly affected by them, and the general public health of a community must be touched directly or indirectly by the maternity and infancy work because the welfare of the child depends so greatly on its immediate surroundings. Instructing mothers about the

importance of feeding pure milk to children and also the care of it in the home leads to a demand for a pure-milk supply. In several States surveys were made or other work done toward improving local milk supplies. Immunization against diphtheria constituted part of the program in some States, as in Michigan, Missouri, and New Mexico, because of local conditions or other reasons.

Success in maternity and infancy programs depends largely on the interest and cooperation of the medical profession, as represented by State and county medical societies and by the individual members of the profession throughout each State. It is the policy of the administrative staffs in the States to lay the plans of work projected for any locality before the physicians as the first step in undertaking work in that locality. Help has been given generously by local physicians, who appreciate the importance of this fundamental educational work; and the reports submitted by the States have made very frequent mention of the assistance received from local physicians and from the medical societies. Some States have paid physicians for services in connection with local work; but many physicians have given their services; and some have assisted in child-health conferences in towns at some distance from their homes, having only their traveling expenses paid. Leading pediatricians and obstetricians have served as consultants on many occasions and have given instruction which has been extremely valuable. Dental societies and local dentists have shown equal generosity and appreciation of the aims of the work.

Very effective support has been given by women's clubs, men's and women's fraternal organizations, commercial organizations, parent-teacher associations, and by educators throughout the country. Such cooperation is desirable for any health program, and it is especially vital in the promotion of the scientific care of children. The interest of the entire adult population, not alone the fathers and mothers of individual children, must be enlisted, if the best results are to be obtained. For this reason the interest and sympathy of "lay workers" is to be sought quite as seriously as that of the professional element in the community.

In the outlines of activities in the cooperating States (see pp. 19-62) usually mention has been made of the number (sometimes only estimated) of volunteer workers who gave their services. Sometimes no mention was made, if the number was small—although it may here be noted that there were but nine States whose reports made no specific mention of volunteer assistance. In some States the method of organization of such workers permitted the enrollment of a larger number (as in Michigan and Texas). In round numbers it may be stated that the volunteer service of more than 12,000 persons was reported.

CHILD-HEALTH CONFERENCES

The reports of the States show that more than 18,000 child-health conferences were held by the State agencies administering the Federal funds during the fiscal year ended June 30, 1925, at which approximately 290,800 examinations of infants and preschool children were made.

The child-health conference is the great teaching agency as to the general care of children, their diet, and both minor and serious defects which have not been recognized. The State agencies administering the act have held itinerant or "demonstration" conferences in order to acquaint local communities with the work which could be accomplished, and help has been given through the loan of personnel. Since demonstration conferences and permanent child-health centers indicate to the people of the community the value of constant medical supervision for their children, the persons who bring their children to conferences consult local physicians more frequently thereafter, to the great benefit of the children. In a number of States the use of an automobile or truck equipped for the holding of child-health conferences has been found advisable for the initiation of the work. Regions not otherwise easily accessible may be reached by this method, especially during the summer months. The incidental educational value is also to be taken into consideration, since an automobile thus equipped attracts attention all along its route, and the possibilities of examination and advice are suggested to persons who might not otherwise consider them. The combination of actual conference work with a showing of health films later in the day, or the giving of talks by staff members to audiences easily and informally assembled, has been found successful in the course of such automobile work. Some of the States which have reported use of "healthmobiles," "health movie trucks," or "health caravans" are Arkansas, Florida, Georgia, Maryland, Pennsylvania, South Carolina, and Virginia.

CHILD-HEALTH CENTERS

One objective in the States is state-wide establishment of permanent, locally supported child-health centers accessible to all the population in need of instruction regarding the care and welfare of their children. Although infant or children's health centers or opportunities for conferences had been established in the larger cities in many of the States before 1922, a county-wide service had been provided in only a few places, although it has been recognized that health centers or itinerant conferences are good teaching agencies. In this discussion a permanent health center means an established place and time at which a physician and a nurse are present for the examination of well children and for the instruction of mothers on the essentials in the feeding and care of infants and preschool children. The establishment of 506 new permanent child-health centers in the fiscal year under review has been reported by the cooperating States.

COUNTY HEALTH UNITS

Some States have used the county as the local administrative unit. A brief period of demonstration of the work by the State or of assistance from State and Federal funds is very frequently followed by a decision of the county to assume part of the responsibility, and ultimately the counties or local communities take over the work if sufficient local appreciation has been aroused. Some States have sent a maternity and infancy nurse to a community

for a specified period to initiate a maternity and infancy program, the work to be taken over entirely by the community as the demonstration thus made commands general approval.

When a county nurse has been jointly paid from maternity and infancy funds and local funds she has usually done generalized public health nursing work, records being kept of the time spent on maternity and infancy work so that proper division of funds might be made. It has seemed advisable to coordinate the maternity and infancy program with the other work and resources of the respective States in the interest of the economy. Obviously, advantage should be taken of all available resources, public and private, which will forward the actual accomplishment of improved care for mothers and babies. Furthermore, it is advisable to have the demonstration work, whether in connection with general infant welfare, prenatal work, or nutritional education, conducted, so far as possible, upon a scale of expenditure commensurate with that scale upon which the respective communities could conduct it upon their own responsibility. The only exception which it is believed should be made to this rule is in carrying on some new piece of work with a view to determining scientifically the results obtained.

HOME VISITS

Home visits form an important part of the work of county and other field nurses. Almost all these nurses are supplied with inexpensive cars, which make it possible for them to reach almost any home in their respective territories where a visit is desirable. The purpose of these visits is to advise the mother on some point of maternal or child care and to demonstrate practical methods of carrying out her own or physicians' instructions.

The nurse who visits in a home has an opportunity to see the living conditions of the family, and her instruction and advice in regard to matters of maternal and infant hygiene and the welfare and health of the young children are the more valuable when her demonstrations are made with the equipment which the home affords. The lack of formality attending such a visit encourages the mother to ask questions more freely and mention her problems more readily than is always the case at even the most informal conference. By a visit to the home the nurse is often able to interest the parents in having corrections made of defects noted when their children were examined at child-health conferences. Home visits are especially useful in regions where the isolation of smaller communities and of individual homes makes it difficult to assemble groups for conferences.

In some communities the policy has been adopted of having the nurse call at the home of each newborn baby as soon as its birth is registered.

Since a visit may or may not include a demonstration it is not possible to report accurately the number of home visits and home demonstrations as separate items. There was an approximate total of 300,000 visits and demonstrations, the numbers reported by Alabama, New Jersey, New York, North Carolina, Ohio, and Virginia indicating that those States in particular made intensive use of this method of teaching.

NUTRITION WORK

It is difficult to separate nutrition work from the other activities of the physicians and nurses. Instruction relating to the nutrition of the mother and her child during the prenatal and breast-feeding periods and of the older infant and preschool child is so important that some discussion of these problems is usually included whenever contacts are made with mothers in home visits, in mothers' classes, at conferences, and at demonstrations and exhibits of all kinds. Five States—Kentucky, Michigan, Missouri, New York, and Ohio—reported the employment of a nutrition specialist. These women were used in various ways: To write bulletins; to give talks to groups; to hold nutrition classes; to discuss their own diets and the diets of their children with individual mothers at conferences; to give demonstrations at fairs and conferences; to work on special studies and surveys, etc. In addition to the nutrition work of their own staffs, several States reported cooperation with the extension division of the State university or agricultural college. Such cooperation is most valuable, as it strengthens the work of both groups in the community.

The importance of an adequate and carefully selected diet for a mother during pregnancy is receiving growing recognition as more exact knowledge of the results of a deficient diet are seen in the condition of the child and of the mother. Through the distribution of diet lists and other printed material and through individual advice in prenatal visits, classes, and conferences this information was being extended throughout all the States in the development of their prenatal work. The value of breast feeding in the reduction of infant morbidity and mortality has been so clearly demonstrated that instruction of the mother concerning the importance of maintaining her milk supply and of breast feeding her baby was emphasized in all the States. Four States—Arizona, Idaho, Minnesota, New York—reported that a special campaign had been undertaken to increase the proportion of mothers who nursed their babies.

When the child begins taking solid food he starts acquiring the food habits that will persist throughout his life. If nutrition work can be done for the preschool child, it should prevent much of the malnutrition seen among school children. Since it is impossible to win the interest of the child himself (except of the older preschool child), the instruction must be given to the mother; and for this reason the formal nutrition class found to be most effective with school children is difficult to use for younger children. Instruction given to individual mothers at conferences or home visits and to informal groups of mothers and their children of preschool age were the most usual plans for this work. Fourteen States—Arizona, Delaware, Florida, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, New Jersey, North Carolina, Ohio, Pennsylvania, Texas—reported having had nutrition classes. Some groups of mothers met several times for a series of lessons; sometimes a single group meeting constituted a class. General talks on food selection and demonstrations of food preparation were both given in these classes. A method used by a few States was to have the nutrition work given by a specialist at the child-health conferences, either in the form of a practical demonstration or as individual instruction

given to each mother. In other States the groups met primarily for nutrition work, often in the home of some member of the group. Many of the States that did not have nutrition classes gave similar instruction in their mothers' classes or little mothers' classes.

DENTAL HYGIENE

Dental attention given to preschool children was reported in connection with the general physical examination of children at conferences in most of the States in which dental examination was mentioned as included in the maternity and infancy work. Dental conferences or clinics were reported by 15 States, and more than 13,000 children were given attention at a total of 330 such conferences. In Pennsylvania assistance in this phase of the work was given by a division of the State department of health which regularly devotes most of its attention to dental care for children of school age.

Full-time dentists or dental hygienists were reported as on the staffs of only two States. In the other States reporting dental conferences or clinics the work was done by dentists volunteering their services or employed for short periods of time. Frequent mention was made in State reports of the generous cooperation of local dentists when child-health conferences were held in their communities. In Virginia, especial emphasis was put on dental hygiene work, 2,033 preschool children having been reached during one six-month period.

Dental care during pregnancy and the nursing period has not as yet been given the attention which is admittedly desirable. However, the importance of care of the teeth is emphasized in prenatal conferences and literature dealing with prenatal care.

CORRECTION OF DEFECTS

It has been observed that defects noted in the last preschool year are more or less permanent and therefore cumulative. This emphasizes the importance of examination of the child before entrance in school. For example, a tabulation of the 24,229 pathological conditions and defects noted in the examination of 12,344 children in Michigan shows a steadily increasing number of defects per child from the first to the sixth year ranging from 1.2 defects per child for children in their first year to 3 defects per child for children over 5 years of age.

It has been difficult to ascertain the number of corrections made of defects noted at conferences. A report is seldom obtained unless a nurse visits the child's home to inquire whether the physician's advice in regard to correction has been complied with, although some parents bring their children to return conferences to exhibit the improvement resulting from correction of the wrong conditions which had been pointed out to them. Some discussion of correction and percentages is included in the outlines of the work in Alabama, Arizona, Colorado, Indiana, Iowa, Missouri, Nebraska, New Jersey, Wisconsin, and Wyoming in later pages of this report.

Attention to goitrous conditions was mentioned in the reports which were received from Colorado, Michigan, and South Dakota. Special orthopedic work or investigation with regard to the need

for orthopedic work or provision for it were reported in Montana, Ohio, and South Carolina, legislation on the subject having been enacted in the last-mentioned State.

PRENATAL CARE

A total of 3,781 prenatal conferences has been reported for the fiscal year under review. More than 36,000 visits were made by mothers to these conferences. The establishment of 65 new permanent prenatal centers was also noted, and increasing attendance has seemed to be recognized as generally apparent. One of the difficulties incurred in the successful conducting of prenatal centers has been the reluctance of women to attend meetings at all public in nature, and their reticence in asking questions after they had conquered their unwillingness to appear at the meetings. This is gradually being overcome, but the prenatal program in many States must still be fundamentally educational for the general population as well as for the individual women who are reached through conferences, visits from nurses, or through the medium of correspondence. Many women not only have no medical supervision during pregnancy but have little or no medical care during confinement.

Women need more instruction in the importance of placing themselves under the care and observation of a competent physician early in the period of pregnancy. This instruction is being given through prenatal letters, pamphlets, and leaflets distributed from State bureaus and the United States Children's Bureau, visual education, group teaching, and talks which the nurses have with individual mothers. That proper prenatal care reduces the number of stillbirths, lessens the danger of maternal mortality and the danger of death of the child in early infancy, and promotes the health of both mother and child are facts as yet but dimly comprehended by the general public. It is generally conceded that the greater part of the infant deaths occurring in the first month of life are due to natal and prenatal causes.

In Michigan it was found that the prenatal center with the best attendance (except those in Detroit) was one which functioned in connection with a hospital. This suggested that the hospital can be a suitable place for a permanent prenatal as well as an infant center. Consequently whenever it was feasible the effort was made to establish such centers in connection with hospitals having a maternity-bed capacity of not less than 10. An incidental advantage in this procedure was that the women learned to appreciate the value of the hospital as a place of confinement. The work so far has been in connection with private hospitals only. In one of the counties the county nurses advised or persuaded the women to consult physicians early in pregnancy, thus laying the foundation for eventual establishment of prenatal clinics or centers.

CARE DURING CONFINEMENT

One problem in regard to care at confinement and care after confinement arises from popular lack of appreciation of the nature of childbirth. Persons who would unhesitatingly seek a physician and hospital services for a comparatively minor operation do not realize

that pregnancy, confinement, and the lying-in period all require the most careful medical supervision. Examples are all too frequently noted of cases in which the father was the only attendant at birth, or in which only a well-meaning neighbor was summoned. Stillbirths, neonatal deaths, and maternal deaths can be lessened by prenatal care and by better care at confinement. The study of maternal mortality published by the Children's Bureau (see p. 80) shows that a very high percentage of the losses of mothers' lives is due to preventable causes. Work for prevention of the unnecessary deaths in childbirth is, therefore, imperative. At the same time it must be conceded that mothers who desire medical attention are to some extent in positions where they are quite as unable to obtain it as are mothers who do not appreciate—or can not persuade their families to appreciate—its advantages. People who live in sparsely settled regions are occasionally cut wholly off from access to the outside world, and sometimes travel is rendered difficult, if not entirely impossible, by heavy snowfalls or impassability of roads.

Another problem in regard to confinement is the difficulty of obtaining medical attention and nursing care for those who desire it. There are many examples of communities a considerable number of miles from a physician, and of districts having but one or two physicians to serve the communities within a large radius. Some communities must in fact ignore the need of medical attention because the nearest physician is so very remote. It goes without saying that where individual physicians are rare the likelihood of obtaining hospital facilities is even rarer. One of the items which thus presents itself for serious consideration is the need for well-conducted small hospitals for confinement cases. Whether these should be county hospitals, and how their establishment and maintenance should be provided for and their facilities put within the reach of persons of moderate or scanty means, are still questions to be answered.

In the meantime the standards of medical care for home confinements should be raised, and more adequate nursing care immediately thereafter should be arranged for. One suggestion is offered in the effort mentioned in New Hampshire (see p. 44) to find in each village women who could be trained to assist their neighbors as a temporary improvement in the situation. It is also possible to make clear in literature, as well as in personal contacts made by persons engaged in maternity and infancy work, the value of a physical examination of the mother six weeks after confinement. Such examination, pointing out the need for attention and care, may help to avert many cases of invalidism. The work done in the way of lecturing before medical societies and other groups in New York through the help of the "regional consultants" of the division of maternity, infancy, and child hygiene of that State is worthy of mention in this connection (see p. 46). Stressing prenatal-conference work in the State programs and obtaining the services of specialists for this work has been found advantageous, especially good results having been realized in Minnesota (see p. 38). The problem of midwife service for confinement cases is discussed in the following section of this report.

MIDWIVES

The progress in acquiring definite information on the number and character of midwives practicing legally or illegally has continued, as also the work of instructing, supervising, and registering, and the elimination of the unscrupulous and unfit.

Surveys were begun in Alabama and West Virginia. Especially active work was done in Arizona, Florida, Georgia, Kentucky, Louisiana, Maryland, Michigan, Mississippi, New Jersey, New York, Pennsylvania, Tennessee, and Texas. Pennsylvania extended its work into three more counties of the coal-mining districts. Michigan completed its survey and is developing a state-wide system of instruction, as is Georgia, where a negro physician on the staff of the Children's Bureau has been working among the negro midwives. The effort in Georgia is not to eliminate the negro midwife but to concentrate on her physical fitness and education. In regard to work in New Mexico see pages 68-69.

California and South Dakota expect to acquire added data on their local midwifery situation through the new activity of their programs—the inspection and licensing of maternity homes.

The holding of classes for midwives was reported in 20 States, more than 400 being held, more than 10,600 midwives being enrolled for instruction, and more than 8,000 reported as completing a somewhat formal course.

As the nation-wide survey of the midwife situation progresses, it becomes apparent that although the initial inquiries reveal that the number practicing is greater than the original estimate, later data show a diminution in both the number of midwives and their activities following instruction, supervision, or registration of the midwives, accompanied by the education of the mother in the hygiene of infancy and maternity. A lessening in their totals is reported by 22 States, notably Alabama (in Birmingham), Michigan, New Jersey, New York, Pennsylvania, South Carolina, and Virginia. In New Jersey 30,000 cases were delivered by midwives in 1919 and 17,645 in 1924. In New York the midwives reported 16 per cent of the births in 1916 and 8 per cent in 1924—a decrease of nearly 1 per cent a year. In Michigan 2,000 more births were reported in 1924 than in 1921, yet the percentage of midwife attendance dropped from 6.9 per cent in 1921 to 4.4 per cent in 1924. Virginia has reduced its total number of midwives from 9,500 to about 5,000, and South Carolina from 6,000 to about 3,000.

INSPECTION OF MATERNITY AND INFANT HOMES

The authority to license maternity homes or lying-in hospitals and boarding homes for children is vested in other bureaus of some State boards of health than those designated to administer the act for the promotion of the welfare and hygiene of maternity and infancy, and in some is vested in other State boards than those dealing with health (as boards of public welfare, charities, and corrections). The obtaining of licenses is required in 31 States and the District of Columbia. The supervision which the licensing authority exercises over the institutions licensed varies from a mere right to inspection to scrupulous and detailed regulation of the standards to

be maintained and the records to be kept. Inspection of maternity homes by the child-hygiene bureaus of 11 States was reported, a total of 464 inspections being made. This included 261 in Ohio, where a satisfactory situation now obtains in regard to this matter (see p. 50), and 78 in Texas, where attention was focused upon the situation in order to accomplish some improvement. Inspection of infant homes was reported by 8 States, with a total of 623 inspections made, 344 of these being in New Jersey and 213 in Texas.

INSTRUCTION OF MOTHERS

Classes for the instruction of mothers were reported by all but 11 of the States, more than 1,400 classes being held and more than 31,500 women attending them. Details in regard to method or aims were mentioned by Florida (see p. 28); Indiana has a parental program of education through mothers' classes which is well adapted to a State having many private physicians and nurses (see p. 31). Work among racial groups was done in some States, as among Indian mothers in Minnesota and for Negroes in some of the Southern States. The primary work in mothers' classes is education of women in regard to prenatal care, then care at confinement, and lastly the general care of both the mother and the baby. The aim is both to impart the essentials of maternal and child care and to instill appreciation of the importance of early and continuous medical supervision for both mother and child. Very great improvement in the care and feeding of young children has taken place within the last quarter of a century, and although the number of mothers who have really learned the elements of healthy physical life for their children is still perhaps only a minority of the population, a majority of the mothers respond willingly to efforts to teach them at least the more fundamental matters which they should know in order to give their children a better chance for physical health.

In lieu of class instruction, or in addition to it, considerable education of mothers has been accomplished by the distribution of printed or mimeographed prenatal letters. In fact the wide distribution of prenatal letters is one of the most practical and inexpensive methods of initiating maternity and infancy work and accomplishing a certain amount of public-health education. The letters can be very cheaply prepared, they reach the individual, they are passed from hand to hand, generally with a high degree of appreciation. It has been found that women in the early months of pregnancy will send for prenatal letters when they are reluctant or unwilling to attend a group meeting or a center or conference. Yet the education accomplished by these letters is very great. The use of prenatal letters was specifically mentioned by 18 States, the numbers varying from 612 in one State to 24,952 in another, 27,142 in another, and 43,420 in another. The reports from the States did not always show definitely whether the series or the individual letters were indicated by the numbers given. One State reported that 4,213 series were sent out. In many States a large proportion of the addresses came from physicians who wrote requesting that the letters be sent to their patients or be furnished to them for distribution among their patients.

More detailed instruction and also more individual advice and assistance can be given by correspondence courses than by a series of letters to which no reply is expected. The correspondence courses given in the States vary, however, from a formal course (in which each lesson is to be written out by the student, sent in for correction and criticism, and returned for further study) to an informal correspondence with individual mothers who write for more detailed advice or explanation of some topics discussed in the prenatal letters which they have received and whose queries can not be adequately answered by the forwarding of a suitable pamphlet. In Minnesota it was observed that this method of instruction was successful in reaching rural women. In Virginia it seemed that the method of correspondence brought about a more free exchange of questions and answers than was always possible at personal interviews. The State of Washington also mentioned a satisfactory use of the correspondence system.

LITTLE MOTHERS' CLASSES

The holding of little mothers' classes was reported by 23 States with a total of more than 1,300 classes. It should also be noted that instruction in infant care has become a part of the State's educational program in at least one State (see Wisconsin, p. 61). Such teaching of young girls is important as affecting not only the standards of care of the next generation of mothers and their infants but also as having an immediate effect upon the welfare of the children. The older girls often have almost the entire care of their younger brothers and sisters after school hours. Such "mothers' helpers" have full opportunity to demonstrate all the information which they can acquire at classes on infant care. One nurse noted an instance, for example, of a sixth-grade girl who showed her foreign-born mother how to prepare and use boric-acid solution for the new baby's eyes; who urged that the baby should not be rocked and that the automatic cradle (which rocks the baby while the mother is engaged in farm chores) should be tied to prevent its rocking; and who advised that the baby should sleep alone at night as well as in the day.

BIRTH AND DEATH REGISTRATION

It is obvious that in order to make a suitable outline of the most immediately needed maternity and infancy work in a given community there is need of access to accurate vital statistics. Consequently, as will be noted in the outlines of activity in the individual States (pp. 19-62), most of the States have given some attention to improving the registration of births and deaths. In Kentucky, for instance, one member of the staff devoted full time to this work (see p. 34), and in Mississippi a well-worked-out campaign and check-up were conducted (see p. 39). Especial attention has also been concentrated upon this matter in States not yet included in the birth and death registration areas (see figs. 1 and 2).

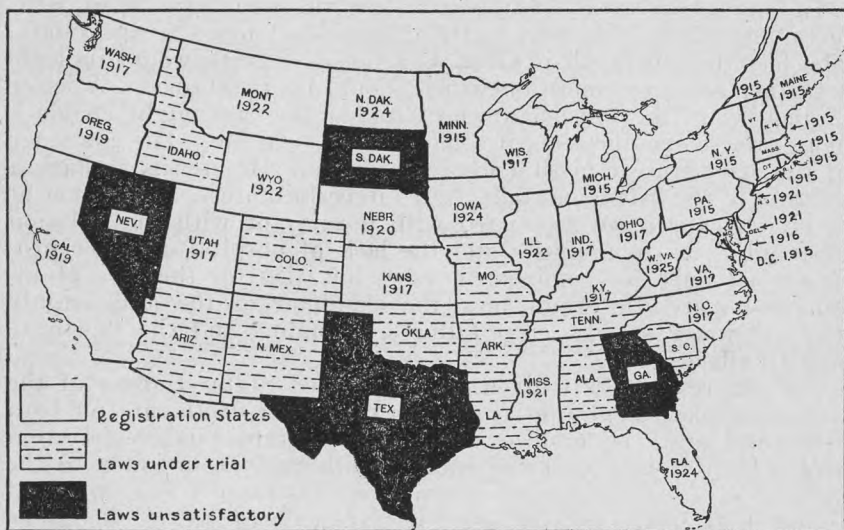


FIG. 1.—The birth-registration area (1925). Thirty-three States and the District of Columbia, including 75.9 per cent of the total estimated population of the United States, have satisfactory registration laws and actually register at least 90 per cent of the births. In 11 States there are good registration laws which have not been in force long enough to bring registration up to 90 per cent. Four States have laws that can not and do not secure good registration of births. The years in which States entered the birth-registration area are indicated

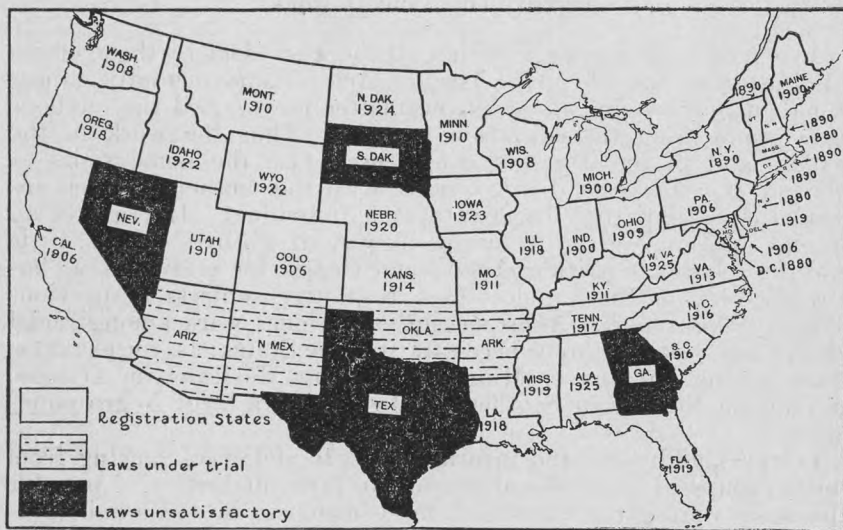


FIG. 2.—The death-registration area (1925). Forty States and the District of Columbia, also 24 registration cities in nonregistration States, including 89.4 per cent of the total estimated population of the United States, have satisfactory registration laws and actually do register 90 per cent of the deaths. In four States there are good registration laws which have not been in force long enough to bring registration up to 90 per cent. Four States have laws that can not and do not secure good registration of deaths. The years in which States entered the death-registration area are indicated

In connection with death registration the investigation of stillbirths may frequently lead to the obtaining of more accurate data. The fact that stillbirth is given as a cause of death would indicate a further cause or condition which should be ascertained. A letter of inquiry to the physician who handled the case might enable a more precise classification of some cases to be made. The character of the attendant at birth (physician or midwife) seems to have a relation to the infant mortality rates in certain areas. Employment of midwives is often associated with poverty or with the isolation of families or communities and the lack of hospital or other provision not only for confinement cases but also for the care of infants who are ill. Epidemics, the character of the milk supply and the water supply, crop failures, droughts, and the like have also an effect.

The figures for 1924 given by the United States Bureau of the Census indicate a substantial drop in the infant death rate for both urban and rural communities in the United States birth-registration area. If it is true that the infant death rate is an index to the standards of living in a community, as has been urged, it would follow that instruction on general standards of living should be included among preventive measures. This applies to both communities and individual homes. Undesirable conditions are found in rural communities as well as in cities. The isolation of rural communities sometimes permits the continuance of conditions of living that would not be tolerated in cities, where the crowded condition has compelled more drastic regulation, although it is true that the rural child is favored by its more natural conditions of living.

GENERAL EDUCATIONAL WORK

It is frequently emphasized that all the work done by the agencies administering the Sheppard-Towner Act is fundamentally educational in purpose and in result, no matter how varied the methods of accomplishing the education may be. Thus the work in the centers and in the itinerant conferences, also the home visits of the nurses, achieves a direct contact with the mothers, so that information is imparted directly to each individual. Instruction on special subjects is given to groups by way of mothers' classes, little mothers' classes, nutrition classes, and classes for midwives, as has already been outlined under those respective subjects in previous pages of this report. Assistance in educational work among racial groups has continued to be necessary in some States; as, for example, work among Indians in Minnesota, among Mexicans in Arizona, and among Negroes in Southern States having a large Negro population.

Lectures, addresses, and informal talks to audiences varying from small groups of professional persons to large audiences of popular character were given by one or more members of the administrative staffs in 42 States. The total number was more than 13,500. Large numbers were reported by several States, as 1,980 by Indiana, 1,198 by Kentucky, 952 by Texas, 809 by Ohio, 789 by Montana, and 705 by Florida. Illustration of lectures by slides and films was mentioned for a number of States and the use of radio in a few.

Visual instruction by means of films dealing with prenatal care and child health, generally without accompanying lecture if the film was long or of semipopular type, was given very widely. In addition to the Children's Bureau films (see p. 70) other films are being prepared and used with success, and an advantage in this kind of instruction is that it can easily be added to the work of cooperating agencies for public instruction. Lending the film is a simple process, and its showing is generally appropriate in connection with education on matters of general health and sanitation.

The distribution of informative literature has been an important phase of the work. Many bulletins and leaflets are distributed directly from the State administrative offices in response to requests made by local organizations, physicians, and individual mothers. A very large number are given out on the occasion of exhibits at State and county fairs and other places of public assembly where attention may properly be called to maternal, infant, and child welfare. Copies are also given to the homes in which nurses make visits, and these bulletins are not only read conscientiously for the most part, but loaned in the neighborhood, and sometimes painstakingly copied by mothers who do not realize that they could obtain copies of their own without financial outlay. More than 2,000,000 bulletins and leaflets were distributed by the cooperating States; and, inasmuch as an attempt was made to avoid the inclusion of figures on distribution of brief or not strictly informative material, it is believed that this figure greatly understates the actual number of pamphlets placed in the hands of persons who would profit by them and were eager to receive them. Children's Bureau publications (see p. 69) constituted a great part of the literature distributed, and in many States these were supplemented by pamphlets or leaflets prepared by the States for special uses within their borders or in certain localities. Spanish editions were prepared for populations where the Spanish-speaking element was preponderant or seemed in need of special assistance.

Posters, charts, diet cards, and similar informational material not coming within the category of publications were also prepared in very large numbers in some States and widely used.

Exhibit material has continued to be a convenient medium for instruction of the general public as well as for small and specialized groups. Posters, charts, samples of clothing suitable for the prenatal period and for early infancy, simple home equipment for the care of infants, and material covering the care of mothers, babies, and preschool children have been prepared for special occasions and for loan purposes. Loan material has been used until it was literally worn out and then replaced and kept in circulation. In numerous instances the women's clubs and other local organizations cooperated generously in the preparation of exhibit material as well as in arranging for as wide publicity as possible.

PERSONNEL OF THE ADMINISTRATIVE STAFFS

Since there is great variance in the size of the budget and the kind of work undertaken in the different States there is also much vari-

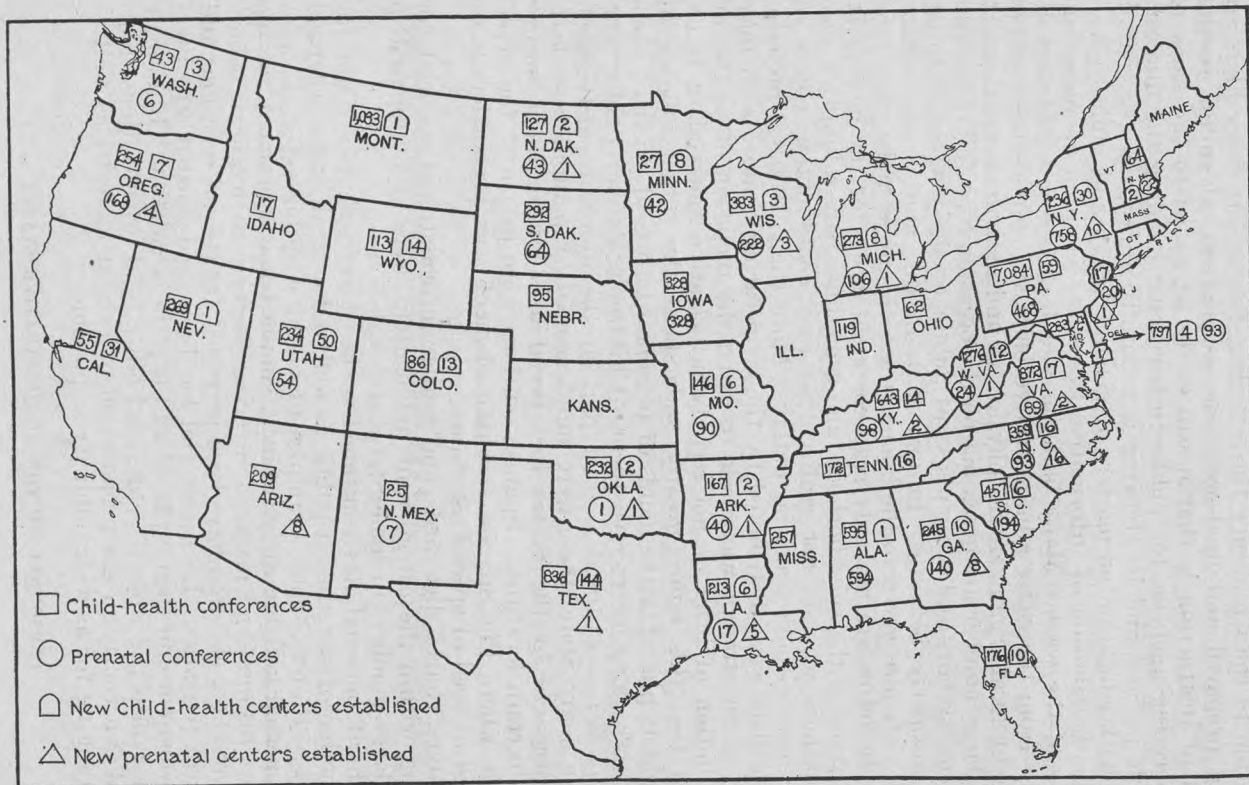


FIG. 3.—Distribution of the 18,154 child-health and 3,781 prenatal conferences held and of the 506 new permanent child-health centers and 65 new permanent prenatal centers established as reported by the cooperating States for the fiscal year ended June 30, 1925

ance in the personnel of the administrative staffs. Following are the main facts according to figures submitted by the States for the period January 1 to June 30, 1925:

There were 56 physicians devoting their entire time to work upon the State staffs, and 16 were giving part time. A physician was director in 27 States and a nurse in 10 States (Alabama, Delaware, Florida, New Hampshire, New Mexico, Oregon, South Carolina, West Virginia, Wisconsin, Wyoming). In 6⁴ the director was neither a physician nor a nurse. In 5 States (Colorado, Idaho, Mississippi, New Mexico, South Carolina) the only physicians on the staff devoted but a part of their time to the work. On only 9 staffs (in Arizona, Delaware, Florida, Nebraska, Nevada, New Hampshire, Vermont, West Virginia, Wyoming) were there no physicians, the medical work in these States being done by physicians volunteering their services or receiving a small honorarium for examination work at conferences or detailed by State boards of health.

Every State⁵ employed public-health nurses, the largest number reported by any one State as giving their entire time to the work being 38 in New York. New Jersey reported 26, North Carolina 19, Georgia 18, Michigan 12. The number of nurses giving part-time service was, of course, larger, especially in States where a division of work between two or more bureaus or between State or local and Federal staffs was feasible. Pennsylvania reported 124 part-time nurses, Virginia 48, Texas 25, Alabama 22, and Tennessee 22. The total number of nurses reported as full-time workers on the State staffs was 252, the total number of part-time workers 383. In some States it seemed advisable to have the nurses devote themselves to the maternity and infancy program exclusively; others had a generalized program, some arrangement being made with the counties or local communities, especially in rural sections, for a specified portion of the nurse's time, this portion to be paid for from Sheppard-Towner funds.

Dentists or dental hygienists were on the staff as full-time workers in Iowa and as part-time workers in Mississippi. Other States employed dentists for short periods as they were needed. Four nutrition workers were reported as giving their full time. Among other workers noted in the State reports were lecturers, laboratory technicians, and social workers. The clerical staffs varied in accordance with the amount of office work to be done.

PRINCIPAL ACTIVITIES OF THE INDIVIDUAL STATES

A summary of the work done in the cooperating States, as reported semiannually to the Federal office, is given in the following pages (see also distribution, fig. 3). These indicate the main lines of activity and the special pieces of work undertaken. Very little work has been done in the larger centers except for demonstration or training purposes, the chief effort being directed toward reaching

⁴ In Iowa the director is a member of the State university faculty (see p. 32). In New Mexico the maternity and infancy program was administered through two bureaus, which had their separate administrative staffs and did independent work. A nurse was director of one of these bureaus, a social worker of the other (see p. 45).

⁵ Except Vermont, in which the cooperation under the act did not begin until near the end of the year (see p. 58).

the rural population, the more isolated groups, and special elements in need of education or assistance. Since rural work is proportionately costlier than city work, the State is justified in making a greater contribution toward this than toward the work in cities, as it does for school work and for taxation in general. Therefore, the States are attempting faithfully to carry out the spirit of the act by initiating and carrying on the work in this more difficult field.

The enumeration of the staff is made according to the State reports for the last half of the year, and is thought to be representative of the average number of workers employed throughout the year. The words "part-time" indicate that the worker's time was divided between maternity and infancy activities and other work, only a part of the total salary being paid from maternity and infancy funds.

The following table summarizes the educational work done by States cooperating under the maternity and infancy act in the fiscal year ended June 30, 1925, as reported in the outlines of principal activities of these States:

Summary of educational work done by States cooperating under the maternity and infancy act during the fiscal year ended June 30, 1925, as reported in the outlines of the principal activities of these States

States cooperating	Conferences held		New permanent centers established		Classes organized for the instruction of—					Number of nutrition classes	Extension courses or clinics for physicians ¹	Visits by nurses to give instruction in homes	Pamphlets and leaflets distributed ²
	Child-health	Prenatal	Child-health	Prenatal	Mothers		Midwives		Little mothers				
					Number of classes	Attendance	Number of classes	Enrollment	Number of classes				
All States.....	18, 154	3, 781	506	65	1, 403	31, 529	412	10, 693	1, 362	301		299, 100	2, 195, 000
Alabama.....	595	594	1										
Arizona.....	209	(⁴) 40	2	8	(³) 1	(³) 25	³ 8	³ 173	(²) 8	(³)	(³)	60, 362	60, 000
Arkansas.....	167		2	1	(³)	(³)	10	160		(³)	(³)	13, 173	77, 300
California.....	55		31									5, 055	85, 000
Colorado.....	86		13		31	805	2	21				13, 500	13, 500
Delaware.....	797	93	4		5	20	11	210	2	1		14, 855	(³)
Florida.....	176	(⁴) 10			(³)	(³)	(³)	2, 902		(³)			18, 100
Georgia.....	245	140	10	8	(³)	1, 084	(³)	2, 600	115				25, 700
Idaho.....	17	(⁴)										1, 681	6, 800
Indiana.....	119				374	16, 649							156, 000
Iowa.....	328	328									(³)		80, 600
Kentucky.....	643	98	14	2	18	364	36	297	116	4	(³)		50, 000
Louisiana.....	213	17	6	5	(³)	(³)	(³)	26	11	95	(³)		11, 000
Maryland.....	283		1		16	68		110	11	(³)	(³)		(³)
Michigan.....	273	106	8	1	127	1, 737	7	20	285	(³)	(³)		(³)
Minnesota.....	27	42	8		133	1, 316			126		(³)		150, 000
Mississippi.....	257	(³)					(³)	(³)				2, 630	(³)
Missouri.....	146	90	6		195	3, 157			95	90			116, 500
Montana.....	1, 033	(³)	1		(³)	(³)			(³)	36			10, 500
Nebraska.....	95				4	75							73, 200
Nevada.....	269	(⁴)	1		13	219			57			2, 802	(³)
New Hampshire.....	64	22	2		(³)	(³)			9	7			150, 000
New Jersey.....	(³) 20	17		1			(³)	(³)	20				(³)
New Mexico.....	25	7					7	10	8				3, 212
New York.....	236	758	30	10	242	2, 606	(³)	(³)			(³)	47, 769	177, 700
North Carolina.....	359	93	16	16	(³)	(³)	55	480		(³)	(³)	28, 569	125, 000
North Dakota.....	127	^{3 4} 43	2	1									15, 800
Ohio.....	62									6		10, 387	
Oklahoma.....	232	1	2	1	15	178			28				5, 000
Oregon.....	254	168	7	4	2	27			14			1, 904	(³)

¹ Extension work in pediatrics and obstetrics conducted by specialists.

² Estimated or approximate number.

³ See detailed statement in the outline of activities of this State.

⁴ Prenatal conference work was done in conjunction with child-health conferences.

Summary of educational work done by States cooperating under the maternity and infancy act during the fiscal year ended June 30, 1925, as reported in the outlines of the principal activities of these States—Continued

States cooperating	Conferences held		New permanent centers established		Classes organized for the instruction of—					Number of nutrition classes	Extension courses or clinics for physicians	Visits by nurses to give instruction in homes	Pamphlets and leaflets distributed
	Child-health	Prenatal	Child-health	Prenatal	Mothers		Midwives		Little mothers				
					Number of classes	Attendance	Number of classes	Enrollment	Number of classes				
Pennsylvania.....	7,084	468	59				(²)	386	32	(³)			350,000
Rhode Island ³												4,164	28,000
South Carolina.....	457	194	6		31	529	183	2,206	29			952	8,000
South Dakota.....	292	⁴ 64			5	67							8,000
Tennessee.....	172		16				31	513	88			13,312	13,000
Texas.....	836	(²)	144	1	164	2,274	36	605	104	61			41,200
Utah.....	234	⁴ 54	50		(³)	(³)			4			2,296	13,600
Virginia.....	872	89	7	2	27	329	(²)	(²)				67,175	218,000
Washington.....	43	6	3		(³)	(³)				(³)			8,500
West Virginia.....	276	24	12	1	(³)	(³)						8,479	
Wisconsin.....	383	222	3	3					211			3,165	103,500
Wyoming.....	113	(⁴)	14		(³)	(³)						7,158	(³)

³ See detailed statement in the outline of activities of this State.

⁴ Prenatal conference work was done in conjunction with child-health conferences.

ALABAMA

Administrative agency:

State board of health, bureau of child hygiene and public health nursing.

Staff:

Director (nurse), 4 staff nurses (1 negro; 3 part time), 22 county nurses (19 part time), 3 clerks, pediatrician for 1 month, additional clerical assistants as needed.

Activities:

Child-health conferences—595, at which 12,299 examinations were made. Report was made of the correction of 823 defects which had been noted by examining physicians.

Pediatric clinics—a demonstration and lecture course for local physicians was conducted for one month by a prominent pediatrician employed for this special work. Pediatric clinics were held in five counties and attended by 130 physicians; 302 infants and preschool children were examined in these demonstration clinics.

Prenatal conferences—594, with an attendance of 622 women reported for the 173 conferences which were held during the last half of the fiscal year. Also 3,043 prenatal cases were referred for medical examination and advice, and 5,940 home visits were made by county nurses to expectant mothers during the first half of the year. During the last half of the year county nurses had 2,162 prenatal cases under supervision and made 9,038 home visits to these mothers.

Midwives' classes—in 18 counties in the first half of the year, with an enrollment of nearly 600. In the second half-year 8 classes were held, with an enrollment of 173. Individual instruction was given to several hundred midwives, and a total of 1,281 were under supervision. A card index made of the midwives practicing in 12 counties showed a total of 583, of whom 466 were negroes. The health officers in 18 counties were giving attention to the midwife situation.

Mother's class—1.

Little mothers' classes—8, the instruction being given to 174 high-school pupils.

Home visits—45,384 (in addition to the prenatal visits reported under prenatal conferences), made by the county nurses to advise mothers on the care of infants and preschool children.

New permanent child-health center established—1.

Lectures and addresses—256, to audiences totaling 18,749. Almost the entire time of the negro nurse on the staff was devoted to lecture work among the negroes.

An exhibit was prepared and shown at the State fair. A primer of hygiene was compiled for use in special classes for the State department of education.

As a result of the educational work of the State bureau two counties not heretofore doing maternity and infancy work have made appropriations for a county health service which includes maternal and infant hygiene activities.

ARIZONA

Administrative agency:

State board of health, child-hygiene division.

Staff:

Director (nonprofessional), 5 nurses, 1 clerk.

Activities:

Child-health and prenatal conferences—209, with 3,676 examinations or inspections of children. Whenever possible, the services of a local physician were obtained. Otherwise the nurse weighed and measured the children, pointing out to the mothers such cases as should be referred to the family physician. Parents were having defects corrected, though slowly. Report was made of 203 corrections, but it is understood that

others were also made. Histories were taken for the prenatal cases, and consultation with physician and an examination were recommended. Upon request the nurse placed the name of expectant mothers upon her list for home visits. Each of the 5 nurses on the staff was assigned a district of one or more counties and did her own preliminary organization and follow-up work. Each one engaged in as many kinds of maternity and infancy work as were practicable in her district—the program necessarily depending upon the territory to be covered and the population.

Mothers' classes—97 class sessions, with a total attendance of 1,555 women.

Little mothers' classes—46 class sessions. These were held among communities whose population was largely Mexican.

Group demonstrations and exhibits—101. These included exhibits at county fairs and demonstrations on preparation for confinement and care of mother and baby.

Home demonstrations and home visits—1,234 home demonstrations, including the preparation of obstetrical packages, care of mother and baby after confinement, bandaging for varicose veins, bath in bed, and expression of breast milk. In these home demonstrations the mother sees her individual problem solved in her own home and with the things she must use, which are often of the most primitive character. In addition to special demonstrations 5,602 home visits were made to infants, 6,085 to preschool children, 908 to prenatal cases and 578 to postnatal cases.

Maternity homes inspected—4.

Infant home inspected—1.

New prenatal centers established—8.

Lectures and addresses by members of State staff—243.

Campaigns—3, including 1 on breast feeding, 1 on birth registration, to arouse interest in the model law for vital statistics before the legislature (which was enacted into law in March), and 1 on "Get ready for school."

Volunteer assistance was given by 96 physicians, nurses, and lay workers.

Midwives were given individual instruction, and as much supervision was exercised as was possible without the existence of legal authority. Most of the midwives appreciated this service. The field nurses visited patients with many of them, making demonstrations of proper care and distributing literature. Some of the more objectionable individuals have ceased to practice, and all seem more particular about complying with the regulations. One of the greatest difficulties in the situation is the fact that many of the Mexican midwives can not read nor write. The Spanish-speaking nurse on the staff has in consequence very heavy work.

A few nutrition classes were conducted.

Some work has been done on a survey of infant mortality, continuing a comparative study of statistics of infant mortality begun in 1920.

A Spanish translation was made of the infant-feeding charts already in use in English, and copies were printed by the State board of health. Distribution was made of about 60,000 pieces of printed matter in English and Spanish, ranging from the Federal bulletins such as Child Care to charts on infant feeding and notices of public-health regulations.

Prenatal letters were distributed upon application from mothers, also to addresses sent by physicians, the field nurses, county home demonstration agents, and midwives. The mailing list was increased by 350 names.

ARKANSAS

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (physician), 3 staff nurses, 3 county nurses (part time), 1 midwife inspector (nurse), 1 clerk, 1 chauffeur.

Activities:

Child-health conferences—167, at which 5,255 children were examined. The use of the "healthmobile" was continued, and districts not previously visited were sought out. A physician and 2 nurses composed the staff of the traveling health unit, the chauffeur for the truck carrying the apparatus serving as operator of the motion-picture machine and as

mechanician for the electrical sanitary exhibit which was usually set up in one corner of the history-taking room at the conference. An average of 16 conferences were planned for each county, with about two weeks' preparatory work in each community done by one of the nurses. Assistance was often given by lay women, who made house-to-house canvasses to make appointments for the mothers to have their children examined.

At the close of a very successful piece of work in a mountain county a general clinic was held at which specialists in each particular line of work donated their services. Examinations were made of crippled children (34), eye cases (63), and chest cases (26). Most of these cases had come under observation at child-health conferences. The county medical society met the same day to observe the work of the specialists and to hold consultations concerning cases.

Prenatal conferences—40 with an attendance of 163.

Mothers' classes—37 group demonstrations, with 925 women attending, were held during the first half of the year.

Midwife classes—10, with an enrollment of 160 women, and with an average attendance varying from 4 to 35, according to the size of the group. These classes were held monthly in 7 counties by the local public-health nurses.

Midwife conferences—75. The midwife supervisor visited 46 counties for the first time, holding 42 conferences. She made return visits to 20 counties, holding 33 follow-up conferences, and attended 4 classes held by local nurses. It is an indication of a cooperative spirit on the part of some of the midwives that one rode 15 miles on horseback to attend a meeting, another walked 7 miles, and one drove in from an adjoining county in a wagon. It is believed that very nearly all the midwives practicing in the State have been located, and some raising of their standards is evident. Letters are regularly sent to midwives who fail to attend meetings. The establishment of monthly classes and inspection by local nurses have been the greatest contributions to the work during this period. Standardization of equipment and class material was another noteworthy item. Price lists of equipment were supplied to all midwives, and the response was very good.

New permanent child-health centers established—2.

New permanent prenatal center established—1.

Lectures and addresses by staff members—424.

Exhibits—there were 111 showings of films, including many to college students, and the food exhibits and posters were shown 167 times. A sanitary exhibit was shown 120 times. A poster display was arranged at the State fair.

Literature distributed—77,320 pieces. Articles were prepared also for county weeklies and State daily newspapers.

During January and February when the roads were difficult the nurses compiled birth and death data from records of the bureau of vital statistics concerning 18 counties in which the traveling unit was planning to work.

Much field work was done for the bureau of vital statistics in each county visited in connection with midwife instruction. A negro nurse was employed to assist the midwife supervisor in a special campaign for birth and death registration in counties having a large negro population. An intensive educational program was conducted in 16 counties (a test was being conducted by the Federal Census Bureau).

An effort was made to stimulate counties to promote a nursing service and to standardize and correlate these services with a State bureau of public-health nursing.

CALIFORNIA

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (physician), 1 physician, 3 staff nurses, 20 county nurses (15 part time), 4 clerks.

Activities:

Child-health conferences—55, at which 1,600 examinations were made.

In addition, the county nurses assisted with more than 20,000 examinations of children coming to the local child-health centers (this number includes the examinations in the preschool drive reported in the fol-

lowing paragraph) and gave instruction to approximately 1,500 prenatal and postnatal cases. It has been found advisable to start conferences with a local staff, if possible; the State staff usually works with the local physicians only to the extent of initiating some new health center or assisting in a preschool drive.

A preschool drive was conducted in 31 of the 58 counties in the State, the object being to have all children who would enter school in the fall given a complete physical examination so that all defects might receive attention before the beginning of the school year. The drive was conducted with the aid of more than 363 local physicians, 111 dentists, 178 nurses, and 481 lay workers. By June 30 the State bureau had received record cards of over 6,000 physical examinations, and it was estimated that when all the cards had been received they would show that at least 10,000 children had been examined. This is the second preschool drive which the State has conducted, and one of its encouraging features was that in a number of communities the value of the previous year's work was so thoroughly appreciated that the second drive was started locally without any new impetus from the State bureau.

Home visits—5,055 homes were visited by the nurses during the first half of the year for the purpose of advising mothers concerning the care of themselves and their children. The number during the last half of the year was not reported.

New child-health centers established—31.

Prenatal letters—distributed to 4,213 prospective mothers, nurses, and physicians.

Diet lists and an outline for study classes for mothers were prepared for printing.

Lectures and addresses by staff members—287 before audiences totaling approximately 16,600 persons.

As a means of promoting complete birth registration a roster of physicians was prepared, and every birth certificate filed with the State bureau of vital statistics was credited to the attendant signing the certificate. After a period of four months had elapsed an initial set of letters was sent out notifying the physician of the number of births he had registered and asking for a check with his own list so that unregistered births might appear in the records of the vital-statistics bureau.

Volunteer assistance—in addition to the volunteer assistance given in the preschool drive 10 physicians, 13 nurses, and 60 lay persons assisted in other work, and cooperation was given by 30 State home demonstration agents.

Literature distributed—more than 85,000 pamphlets.

Exhibits and demonstrations—8, held mostly in connection with fairs, and State and local meetings. An exhibit on prenatal care was installed at the University of California to be used in connection with the course for public-health nurses.

COLORADO

Administrative agency:

Department of public instruction, child welfare bureau.

Staff:

Director (nonprofessional), 2 physicians (part time), 2 nurses, 1 midwife supervisor (nurse), 2 clerks. Additional medical assistants as needed for special work.

Activities:

Child-health conferences—86, at which 4,109 examinations were made. A unit for the conducting of child-health conferences had been organized the previous year, consisting of members of the child-welfare administrative staff, representatives of the State board of health, the extension division of the university, the State dental association, and the State tuberculosis association. Prenatal cases also were given instruction.

The bureau interested officials of the State psychopathic hospital in the maternity and infancy work, so that they decided to join the bureau group going out for all conferences. In 5 conferences where 743 children were examined 84 cases were referred to these psychiatrists, and much constructive work was done. The correctional follow-up work was very good. For instance, following the usual procedure in the bureau, just one month after a regular

conference was held in one town a nurse from the child welfare bureau returned and arranged for a follow-up clinic at which 33 tonsil and adenoid operations were performed. Three physicians and one nurse drove the 93 miles to this town and held the clinic in the schoolhouse. One room of this had been arranged for an operating room, one for a boys' ward, and one for a girls' ward. The children were kept in this improvised hospital until it was considered safe to let them return home. The parents who could pay for the service did so. For the others there was no charge.

Midwives' classes—2, with an enrollment of 21. There are few midwives in the State. They are located whenever possible and urged to study and take the State examinations.

Mothers' classes—31, with 805 women attending.

Dental clinics—34, at 16 of which 1,434 children received dental care; the number receiving care at the remaining 18 was not reported. These were held in cooperation with the State dental association.

Exhibits—A complete duplicate of the traveling health clinic was made with dolls and exhibited in the windows of the chamber of commerce in Colorado Springs. This same exhibit was afterwards used in county-fair demonstrations. It created considerable interest and much favorable comment. Even the midwife was given a prominent place in the pictured clinic. Maternity and infancy exhibits were prepared and shown at the annual meeting of the State medical association, the State conference of social work, and some other organizations.

Campaigns—on birth registration and prevention of goiter.

Surveys—2. One was of the general health and well-being of the unsupervised rural child as compared with that of the supervised city child; the other was in regard to the type of feeding received by the supervised city child and the rural child to ascertain the percentage of each that are breast fed exclusively, receive supplemental feedings, or are bottle fed exclusively.

These surveys have been made through examination of children brought to the traveling clinic where they were given their first examination, the mothers never having had any previous instruction on the diet or care of the baby. These children were placed against the same number of supervised city children whose mothers had often had prenatal care and whose babies had been at the center weekly until 2 years of age. The State bureau also gathered data on the condition of the teeth of children with rachitic chests as compared with the same number of children from the same district who had no rachitic deformities.

New permanent child-health centers established—13.

Lectures and addresses by State staffs—196. In connection with State agricultural-college groups lectures were given to 28 groups, and arrangements were made to attend 13 teachers' institutes. A three-day institute for the chairmen of all the State welfare stations was held immediately before the National Conference of Social Work. It is believed that this will be productive of excellent results. Films and slides were used on a number of occasions.

Literature distributed—3,500 copies of Federal publications (in addition to the quota), 10,000 diet sheets and diet books.

Volunteer assistance—Given by 96 physicians, 27 nurses, 22 dentists, and more than 500 lay workers.

DELAWARE

Administrative agency:

State board of health.

Staff:

Supervisor of nurses (part time), 13 community nurses (part time), 2 clerks (part time), 1 milk inspector (part time), 1 sanitary engineer (part time).

Activities:

Child-health conferences—797, at which 21,028 examinations were made.

Continued corrections were obtained in every locality. The interest and cooperation of parents were observed to be increasing.

Prenatal conferences—93. The number of women attending was not recorded.

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Midwives' classes—11 class groups with an enrollment of 210. Two statewide meetings attended by 182 midwives were held. Improvement in reporting births has been noted, also in the midwives' standards of personal hygiene and their use of equipped bags. Many who were inefficient have ceased to practice. The supervision from the State department has reduced the number of unlicensed midwives and brought about an improvement in those practicing.

Mothers' classes—5, with 20 women attending.

Little mothers' classes—2.

Nutrition class—1.

Community demonstrations—2.

Home visits—14,856. Demonstration of the proper selection and preparation of food was an especial objective.

New permanent child-health centers established—4. The centers have had weekly conferences in rural districts and daily ones in city locations.

Lectures and addresses by staff members—90.

Exhibits—graphs, charts, and exhibit material were prepared for use at clubs and fairs, and films were shown frequently.

Literature distributed—Several hundred Federal bulletins each month. A State health bulletin was printed and widely used.

A better milk supply was made the object of some campaign work.

Volunteer assistance was given by 3 physicians and approximately 30 lay workers.

FLORIDA

Administrative agency:

State board of health, bureau of child welfare and public-health nursing.

Staff:

Director (nurse), 7 nurses (1 part time), 2 clerks (1 part time), 1 auditor (part time).

Activities:

Child-health and prenatal conferences—128 conferences for white children with 2,326 examinations made; 48 for negro children with 3,147 examinations made. At the conferences 1,366 white mothers and 1,402 negro mothers were given instruction on prenatal care.

Midwives' classes—134 class meetings for white midwives and 358 for negroes. Altogether 2,902 midwives received instruction, and 2,024 completed the prescribed course and received "certificates of fitness." Most of the undesirable midwives have ceased practicing. The follow-up work when a midwife reported stillbirths had an excellent effect upon the work and the attitude of the midwives, and physicians were being called more promptly if abnormalities or unusual difficulties were to be dealt with.

In place of the usual mothers' classes it has been found advisable to hold a more informal kind of meeting termed "neighborhood institutes," in order to obtain the desired attendance and arouse the interest of the women whom it is the aim to reach. There were 625 such meetings, at which the total attendance was 11,088. More than one-half were for negroes. The method of procedure was as follows:

The nurse who was to make a demonstration of maternity and infancy work first sought out a woman willing to offer her house for the occasion. The woman herself invited friends and neighbors, being left in control of the matter of who might attend, unless she asked the nurse to extend invitations. The mothers were instructed in prenatal, postnatal, and child care. When possible, more than one meeting of the same group was held. The nurse began her talk on preparation for confinement by telling the assembled women that she wished to help them to learn to improvise in order to save money. She showed them how to use material at hand, even the contents of the rag bag, in their preparation before she suggested expending a single penny. This proved more productive of results than permitting the nurse to carry with her an equipment the very excellence of which discouraged mothers who could not afford one so complete.

During one month a different type of neighborhood institute from the one generally held was conducted in two counties. Several points in each county were covered, the same program being conducted in each place. In addition to the State nurse, who talked on maternal and infant hygiene, these institutes

were attended by the county nurse, who talked on home hygiene and sanitation, the home demonstration agent, who talked on the family wardrobe, the county nutrition worker, who attended to the details of the noon meal during which the women were taught food values and proper menus for a well-balanced diet, and the county welfare worker, who gave talks on household economics.

Dental clinics—38, of which 9 were for negroes.

Demonstrations—6, in connection with local activities, such as child-health conferences, local fairs or celebrations. The demonstrations covered feeding of infants, preparation for confinement, care of maternity cases, the use of silver nitrate in the eyes of the newborn, preparation of material to be used (such as solutions, pads, etc.).

New permanent child-health centers established—10.

Campaigns—during negro health week and the first week of May a special campaign was carried on to interest parents in the periodic examination of infants and preschool children. Constant efforts have been made to improve birth registration. More than 1,000 unreported births were recorded and birth certificates issued.

Lectures and talks by staff members—705, to both white and negro audiences, in rural and urban localities. Films were shown by the movie truck in 49 rural districts before audiences totaling approximately 10,500 persons.

Literature distributed—about 10,700 mothers' manuals, midwives' manuals, and bulletins on the feeding of children, and 7,430 pieces of miscellaneous material during the last half of the fiscal year. For the first half year numbers were not reported.

Maternal and infant hygiene work was gradually being made a part of the work of the county and community nurses and was regularly so done in 10 counties. The beginning was made by having them assist the State staff in conferences and in reporting conditions found.

GEORGIA

Administrative agency:

State board of health, division of child hygiene.

Staff:

Director (physician), 1 physician, 5 staff nurses (1 negro), 13 county nurses (5 negro), 1 laboratory worker, 2 clerks.

Activities:

Child-health conferences—245, at which 12,956 examinations were made. At individual conferences 9,714 children were reached during a six-month period.

Prenatal conferences—140, with an attendance of 6,657 women, of whom 2,267 received physical examinations. By individual conferences 6,593 other women were reached.

The healthmobile has been of great value in stimulating interest in both prenatal and child-health conferences. Although lack of funds permitted its operation during a part of the year only, 17 counties were visited, and without exception larger groups assembled than had been expected. The showings of films in the evenings of conference days were attended by almost the entire populations of the various communities.

Midwives' classes—many, with 2,600 women completing the course.

At its annual meeting in Augusta in May the State medical association passed a resolution requesting that the State board of health adopt rules and regulations and arrange for the instruction of midwives under the general supervision of members of the association or other physicians. The division of child hygiene at once prepared rules and regulations for this purpose; and after approval by the medical association they were adopted by the State board of health, thereby becoming as binding as statutory law. This first step taken in the State to control midwife practice has greatly facilitated the instruction of midwives and regulation of their practice. More than 4,000 midwives (mostly negroes) are registered in the State, and many more who are not registered have been practicing. It is estimated that one-third of the babies born in the State are not attended by physicians, but recently the midwives have been calling physicians more frequently in complicated cases and have been sending patients for examination at any indication of difficulty. Midwives' clubs have been organized, with the possession of a certificate that the course of instruction has been satisfactorily completed requisite for member-

ship. At the monthly club meetings a local physician, the registrar, or some other interested person gives a talk on some subject connected with the work. In general the attitude of the midwives has been commendable. They have seemed eager to receive instruction, have obtained equipment, and have improved in their standards of personal hygiene. (For mention of assistance given by the Federal office in the work with midwives see p. 69).

Mothers' classes—in 9 counties, with 1,084 women attending. Home demonstration agents have cooperated with the maternity and infancy nurses by giving the nutrition instruction in these classes. The Parent-Teacher Association also has been active in this work.

Little mothers' classes—115 classes, with an enrollment of 2,657 girls in 9 counties. The course consisted of 10 lessons, followed by a special demonstration by the nurse, who then held an examination, awarding a certificate and pin to each girl who passed the examination.

New permanent child-health centers established—10.

New permanent prenatal centers established—8.

Lectures and talks by staff members—677. Films were used on a number of occasions. The presentation of maternity and infancy work to local women's clubs, parent-teacher associations, and men's civic and professional clubs aided in arousing a wider interest in the activities throughout the State.

The awarding of certificates to girls who had finished the classes in infant care was made the occasion for a number of community demonstrations. The girls presented a play showing the proper and improper ways of bathing and dressing a baby, how to weigh it and why it should be weighed, how to pasteurize milk and prepare an infant-feeding formula. After the play motion pictures were shown. These demonstrations were well attended and helped considerably in showing the community what maternity and infancy work is.

The State division observed the first week in May as child-health week and interested a number of communities in having a demonstration. In counties employing a public-health nurse the demonstration lasted five days and included health conferences, health plays given by the children, talks on child care by local physicians, and in a few instances health parades. In communities not having a nurse the women's clubs were interested in presenting a program.

Home demonstrations—8,598. Visiting the homes to demonstrate proper nursing care or to follow up mothers and children who have attended conferences forms a large part of the work of the county nurses. Nursing care is given only as a demonstration to teach some member of the family how to do for the patient what the nurse has done.

Group demonstrations—group demonstrations were also conducted by the State staff nurses and county nurses. These were usually held in the home of some woman in the community or arranged for through a club. The groups were limited to 15 women, and the demonstrations consisted of home-nursing technique, food preparation, making, packing, and sterilizing of obstetrical kits, making of layettes, bathing of the baby, and milk modification.

Literature distributed—25,717 bulletins within the first half year. The number distributed during the last half year was not reported. These included Federal publications, also a pamphlet prepared by the State pediatric society entitled "The Georgia Baby Book." Physicians and women's organizations assisted in the distribution.

Ampoules of silver nitrate distributed—6,549.

Constant efforts were made to stimulate birth registration and to arouse public interest in this matter. After March 1 certificates were sent to parents who registered their children's births.

As a result of the work of the State division, a number of counties employed public-health nurses.

IDAHO

Administrative agency:

Department of public welfare, bureau of child hygiene.

Staff:

Director (physician, part time), 2 nurses, 1 clerk.

Activities:

Child-health and prenatal conferences—17, at which 1,538 examinations of children and 181 prenatal and postnatal examinations were made by

37 local physicians. Requests for return conferences were received from nearly every community visited, but lack of medical help on the State staff made it impossible to hold successive conferences in any one community.

Home visits—1,681. These were made in homes from which persons had attended conferences to ascertain whether the suggestions made by the examining physicians had been followed. It was found that 232 defects had been corrected and many more were being corrected at the time the nurse called in the home. The extent of the territory and smallness of the field force prohibited a second call in these homes. If one could have been made the report of defects corrected would have been considerably greater.

Midwife supervision—so far as has been ascertained, 29 midwives are practicing in the State. A copy of the law concerning midwifery was mailed to each with a personal letter requesting her cooperation in improving the standards. Only 6 of these women had special training, 23 had no training; 7 worked with physicians only, 22 worked independently. It was found that 14 used no prophylactic in the eyes of the newborn.

The principal causes of deaths of children under 5 years of age were tabulated for the State (on the basis of the figures for the years 1923 and 1924), and an effort was made to ascertain the causes of the premature births and the stillbirths so far as information was obtainable from the physicians whose names appeared on the death certificates. The data from the 200 replies were tabulated. More than five-eighths of the 200 cases were ascribed to prenatal conditions.

A study was also made of the amount of medical attention received by 100 mothers who died during the puerperal period, not of a selected group, but 100 deaths in the order in which they were received by the State bureau of vital statistics during 1923 and 1924. Only 17 of the 100 mothers had had prenatal care for a period of one month or longer.

Some campaign work was done for better birth registration and also in regard to breast feeding.

Talks and lectures by staff members—39, to audiences totaling nearly 1,200 persons.

Literature distributed—approximately 6,800 pieces. These included bulletins on How to Correct Constipation in the Preschool Child, Daily Outline for the Preschool Child, How to Correct Enuresis, and the Federal bulletins on Prenatal Care, Infant Care, and Child Care.

Prenatal letters—distributed to 612 women.

Volunteer assistance was given by 37 physicians, 21 nurses, and 138 lay workers.

INDIANA

Administrative agency:

State board of health, division of infant and child hygiene.

Staff:

Director (physician), 3 physicians, 4 nurses, 1 exhibit director, 1 field clerk and organizer, 1 secretary, 4 clerks.

Activities:

Child-health conferences—119, at which 3,937 examinations were made.

A special survey was made in two counties (La Porte and Newton) to determine the situation in regard to correction of defects which had been noted by physicians making examinations in conferences. For La Porte County the percentage of defects corrected was 36.9; for Newton County it was 48.4. Much general improvement was noted in health and habits.

Mothers' classes—374, with 16,649 women enrolled.

The major feature of the program for the entire year was the mothers' classes. Three units (each consisting of a physician and a nurse) were in the field conducting the classes. The class work consisted of three lessons given by the physician and two demonstrations given by the nurse. The emphasis was placed on prenatal care and preparation for home confinement though one lesson was devoted to the care of the baby in its first year and one lesson to the preschool child. Usually a circuit included two counties. Weekly lessons were given to each group in the circuit, and the work was

arranged to take in all sections of the county with 8 to 14 classes in each. The nurse usually gave demonstrations before class groups in one county while the physician lectured before the groups in an adjoining county. Each was equipped with a car and material for illustrating her share of the work. Motion pictures were a feature of the work. While the physician gave the last lecture of the series the nurse entered the next community to arouse interest in the classes. Letters with a questionnaire were also sent to the secretary of the county medical society, the county health officer, and the local physicians. Newspaper publicity was obtained, and mimeographed outlines of the lectures distributed. Women prominent in organization work were asked to serve as county and township chairmen. An attempt was made to have the course continued by local physicians.

Lectures and talks by staff members—1,980. Motion pictures were widely shown, and a number of charts were also loaned for exhibit purposes at county fairs and on other occasions.

Exhibits and projects—child-health week at Winona Lake Chautauqua, better-baby contest at the State fair, lectures on care of the baby and motherhood to girls at home-economics school, model maternity and infancy center in new baby building at State fair, exhibits shown at county fairs and other meetings, exhibit prepared for American Medical Association meeting in Chicago, shown at State conference of charities and corrections, also at Illinois League of Women Voters' meeting in Chicago. Other exhibits were shown at Peoria, Ill.; Lafayette, Ind.; Biennial Council of the General Federation of Women's Clubs, West Baden, Ind.; National Education Association at Indianapolis, Ind. Exhibits were also shown before local, State, and National groups.

Literature distributed—156,044 pamphlets, etc.

There are fewer than 200 midwives in the State, and these are mostly in two districts whose population is largely foreign. The mothers have been learning that they should demand skilled attention.

Volunteer assistance was given by 44 physicians, 19 nurses, and more than 500 lay persons. Efficient cooperation was given by nearly every state-wide women's organization, including parent-teacher associations, and by a number of men's fraternal and professional organizations.

IOWA

Administrative agency:

State University of Iowa, division of maternity and infant hygiene.

Staff:

Director (Ph. D.), 4 physicians, 5 nurses, 1 dentist, 1 dental hygienist, 3 clerks, 1 social worker.

Iowa is the only State in which the administration of the maternity and infancy act is under the State university. The work is done by the division of maternity and infant hygiene of the extension division, which is governed by an advisory council made up of members of the faculty of the university, particularly the college of medicine, and the director of the extension division, who is also director of the division of maternity and infant hygiene.

The principles underlying the State's program are:

1. Federal and State grants always have as their primary objective the stimulation of local communities to learn how to do certain things which need to be done, and then by virtue of this knowledge to encourage these communities to make provision for doing these things without Federal or State aid.
2. The program therefore must be essentially educational.
3. The particular objective in this field is to awaken people to an appreciation of the importance of the public-health problem and then to stimulate communities to organize their resources to meet that problem.
4. Absolutely basic to the success of any public-health program is the situation in which adequate medical and dental service of the highest type shall be within reach of every person.
5. To render such trained medical and dental service effective, however, it is necessary that the general public shall be educated to make use of such service to the fullest extent. The individual must be brought to see that he owes it to society to be healthy.

Activities:

Child-health conferences—328, at which 6,789 examinations were made. Special effort was made to reach children in need of medical attention. The service was limited to diagnosis, and for treatment of defects the parents were referred in every case to their family physician, who was advised concerning the conditions found by and from the central office. After a reasonable interval during which corrections should have been made a staff nurse visited the community to follow up the cases. Although there was great variation, from 40 to 90 per cent of the cases were reported as placed under the care of family physicians.

Prenatal conferences—328, with an attendance of 6,235 women. In connection with the child-health conferences, both group meetings and individual conferences on prenatal care were held with mothers and expectant mothers by women physicians. In connection with the field-activities committee of the State medical society and the department of obstetrics of the college of medicine of the University of Iowa, the division prepared and sent to the physicians of the State a brief series of minimum essentials of prenatal care.

Dental clinics—109, with 4,063 children receiving care.

Literature distributed—81,600 bulletins, including 50,000 copies of a bulletin on children's teeth.

Lectures and talks by State staff—288.

A correspondence course for nurses was partly compiled, and a series of prenatal letters was made ready for the printer.

Several exhibits and sets of exhibit material were prepared or purchased.

A special study was made of the birth and death statistics for those counties in which conferences were held.

There has been inaugurated a program of active cooperation with the State medical and dental societies, primarily through their respective committees, in an attempt to make available to the general practitioners the best technique and latest advances in the fields of obstetrics, pediatrics, and oral hygiene.

KENTUCKY

Administrative agency:

State board of health, bureau of maternal and child health.

Staff:

Director (physician), 3 physicians (1 part time), 7 staff nurses (1 part time), 18 county nurses (one-fourth time), 1 nutrition worker, 1 inspector of birth registration, 1 publicity agent, 7 clerks (1 part time).

Activities:

Child-health conferences—643, at which 9,971 examinations were made. The itinerant staff conducted 252 of these conferences in 68 counties with the aid of local physicians. The others were held in permanent child-health centers in counties having a part-time maternity and infancy nurse. During the last half of the year 2,731 mothers (including 309 expectant mothers) were instructed at health conferences. The number for the first half year was not reported. Most of the work of the itinerant staff was of a demonstration character in counties where there was no public-health nurse, with the nurse and physician remaining in the county from two to six weeks. There are in the State 98 counties having no permanent public-health worker, and many of these counties are mountainous and isolated without much hope of permanent health work for many years.

Prenatal conferences—98, with 3,005 examinations given.

Surveys—The number of preschool children was ascertained for 32 counties. A complete survey was made of the number and location of midwives in the State, and the names were indexed by counties.

Campaigns—in regard to a pure-milk supply in two localities.

Midwives' classes—36, with an enrollment of 297, of whom 136 completed the course. The midwife situation in general has improved, and the attitude of the midwives toward the efforts made for the sake of raising their standards has become better as they have appreciated more fully the value of instruction.

Mothers' classes—18, with 364 women attending.

Little mothers' classes—116.

Nutrition classes—4, conducted by the nutrition worker, including health habits and food selection for mothers of preschool children, also classes for young girls in nutrition and health for themselves and young children.

Community demonstrations—45.

Infant homes inspected—2. An orphanage was also inspected.

New permanent child-health centers established—14.

New permanent prenatal centers established—2. Cooperation in the work of the prenatal clinic in the city hospital of the University of Louisville by having one of the State staff nurses act as registrar has been continued.

Four special demonstrations of child-health conferences were held for negro physicians in Louisville.

An especial effort was made to improve the registration of births. The birth-registration inspector visited 203 local registrars in 19 counties in order to stimulate more complete and more accurate registration. Results of the work have been noted in the increased number of births reported and also in the quality of the certificates, especially from the midwives, who as a rule are uneducated and who submit very incomplete and illegible certificates. The personal visit is especially necessary for the instruction of midwives who can not read. A total of 66,923 copies of birth certificates were sent to mothers of infants born since the beginning of the calendar year.

Lectures and talks by staff members—1,198.

Literature distributed—approximately 50,000 pamphlets, diet cards, and the like. Many informational articles were also prepared and distributed for publication in magazines and county and other newspapers. Hundreds of posters were also prepared and distributed.

Prenatal letters—4,124 distributed.

Volunteer assistance was given by 462 physicians, 35 nurses, and 984 lay workers.

LOUISIANA ⁶

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (nonprofessional), 4 physicians (1 part time), 4 nurses, 1 midwife supervisor, 2 clerks. Dentists were employed as needed.

Activities:

Child-health conferences—213, at which 10,660 examinations were made. Prenatal conferences—17, with an attendance of 494 women. These were held in connection with child-health conferences. Instruction and advice were given, but no examinations were made.

Midwives' classes—82 class meetings with a total attendance of 905, of whom 295 completed the course. Some improvement has been made in the registration and equipment of midwives and in their use of silver-nitrate solution. A survey of the midwives in one county showed that 140 were practicing, whereas only 64 had previously been listed.

Mothers' classes—52 class meetings with a total attendance of 531.

Dental clinics—in 15 towns. More than 200 days' work was done, and more than 4,000 children were examined.

Nutrition class—1, held in connection with a child-health conference.

Exhibits—13, at county fairs and the State fair.

Home demonstrations—324, to midwives and to expectant mothers.

Permanent child-health centers—6, established by parish health units. Weekly conferences were held in these, and 3,023 examinations were made.

Permanent prenatal centers established—5 established by parish health units. Weekly conferences were held in these, and 245 mothers attended.

Lectures and talks by staff members—125. A number of informational articles were prepared for newspapers also. Exhibits were prepared for several occasions, including two medical conferences. A set of educational charts and several films were widely loaned.

⁶ Louisiana accepted the benefits of the act July 14, 1924.

Literature distributed—10,997 bulletins on infant care, prenatal care, and child care; also several hundred pieces of other literature, including diet lists, cards, and lessons for midwives.

Prenatal letters—898 sent to expectant mothers. When these were first issued copies were sent to all parish health officers with a letter asking for their assistance in reaching all prenatal cases. Many of them cooperated by furnishing lists of names.

MARYLAND

Administrative agency:

Department of health, bureau of child health.

Staff:

Director (physician), 10 county nurses (part time), 2 clerks, 1 director of health education. Additional medical and dental assistants for special work as needed.

Activities:

Child-health conferences—283, at which 5,528 examinations were made. Later correctional work in about 25 per cent of the cases was reported. During the summer months a healthmobile staffed by a woman physician, one or two nurses, and a chauffeur was sent from county to county. Child-health conferences were conducted in each community visited.

No separate prenatal conferences were held. Expectant mothers received advice on prenatal care at child-health conferences or from the nurses who made home visits. The importance of prenatal care was also emphasized through the midwives' classes.

Sample obstetrical packages were prepared through the cooperation of the obstetrical department of the University of Maryland and sent to each of the county nurses.

Midwives' classes—26, with an enrollment of 110 women, 108 of whom completed the course. All but 1 of these classes were held in 2 counties.

Mothers' classes—6, with 68 women attending, and 10 additional classes, for which attendance was not reported.

Little mothers' classes—11.

Dental clinics—33, with 466 children receiving care. Two complete portable dental outfits were purchased and made available to counties on request. Dental examinations of preschool children were made by local dentists in connection with health conferences held on the healthmobile (one part of the automobile being equipped with a portable dental outfit). About half the simpler cases were corrected at once. A committee of the State dental association assigned several of its members to assist in this work.

Nutrition classes—95.

Group demonstrations and exhibits—65, held at county fairs and various group meetings. They included demonstration of a miniature model health center, artificial-feeding outfit, bathing outfit, and layette and showing of motion pictures.

Home demonstrations—285. These included demonstrations of the care of mother and baby, how to bathe the baby and to prepare its food.

Maternity home inspected—1.

New permanent child-health center established—1.

Lectures and talks by staff members—45, also 1 radio talk. Informational service in support of the bureau's program through articles for county papers, lantern slides, motion pictures, and the radio has been given considerable attention through assistance given from the State division of public-health education.

Literature distributed—several thousand pamphlets on subjects pertaining to infant and maternal hygiene.

The bureau supplied to the local registrars in 11 counties (having public-health nurses) postal cards for reporting the name and address of the newborn infant, the parents, and the physician or midwife reporting. These cards were mailed to nurses or health officers as soon as births were reported. The nurses visited as promptly as possible all infants delivered by midwives. Those delivered by a physician were visited if the physician so requested.

Volunteer assistance was given by 10 physicians, 3 dentists, 11 nurses, and 100 lay workers.

MICHIGAN

Administrative agency:

Department of health, bureau of child hygiene and public-health nursing.

Staff:

Director (physician), 3 physicians, 12 nurses, 1 nutrition worker, 5 clerks (1 part time), 1 organizer, additional medical assistants as needed.

Activities:

Child-health conferences—273, at which 4,922 children were examined. The child health conference unit was in the field continuously (except for vacation periods) during the entire year.

Prenatal conferences—106, with an attendance of 272, and 59 women examined.

The itinerant prenatal-conference unit consisting of a prenatalist (physician), nurse, and nutrition worker (with a car), conducted prenatal, infant, and preschool children's conferences with preference given at all times to the prenatal work. Exactly twice as many examinations of prenatal cases were made in the last half of 1924 as in the first half. Fewer group talks on prenatal care were given in the later period, these having been succeeded by individual conferences. The policy was never to examine a prenatal patient without the consent of the physician engaged for the confinement. The nutrition worker gave instruction to each mother at conferences on the general nutrition for the children and especially stressed the nutrition of the expectant mother in relation to the development of the unborn child and preparing for and maintaining lactation. The nutrition worker reached 2,850 mothers through individual conferences in the prenatal clinics.

Every staff worker was instructed to stress prenatal care no matter in what phase of the work she was engaged. The only exception to this rule was the little mothers' classes. For instance, 6 of the 12 lessons in the mothers' classes were devoted to prenatal care; and the importance of medical supervision during the period of pregnancy was impressed upon all the women attending these classes. When noting cases of deficiency diseases in children the infant clinician neglected no opportunity of pointing out to the mothers the relation between deficiency diseases and the lack of proper prenatal care. This was especially important in this State, since it lies in the goiter belt, and it was necessary to inform many mothers who were so affected that they should have had iodine treatment during pregnancy.

Midwives' classes—7, with an enrollment of 20, all of whom completed the course.

Mothers' classes—127, with 1,737 women attending.

Little mothers' classes—285, with an enrollment of 6,391.

A county maternity and infancy nursing program was demonstrated in one community by a State nurse.

Home visits—1,561, in which instruction in infant and prenatal care was given.

Inspection was made of seven hospitals which give maternity care.

A survey in regard to breast feeding was made in four counties, and campaign work done for its promotion.

Campaign work for immunization against diphtheria was done in four counties.

The infant epidemiologist who had previously studied enteritis cases for the bureau made a special study of the scarlet-fever cases in one county in which 27 preschool children were among those who had contracted the disease. The findings were tabulated and graphed.

The midwife survey undertaken in the previous year was completed. The midwife inspector interviewed the midwives throughout the State (1,364 midwives in 83 counties). A mailing list was made of more than 1,500 midwives, and 1,301 of these sent in birth reports. The inspector found that very few of the midwives had any technical training. Some had been taught in European midwife schools, a few were registered nurses, a few were practical nurses, and others were simply good neighbors. Only 13.2 per cent had received diplomas, and 1,167 had no training. Although some of the areas in which they were practicing were sparsely settled the services of a physician could usually be obtained. Exceptions must be made in the case of certain districts noted; for example, one in which there were but two physicians in a county 150 miles long. It was ascertained that midwife attendance had decreased 2.5 per cent in the three years of the work. The demand for midwife

service was noted especially among certain un-Americanized foreign groups. The women attending births in the remote and sparsely settled communities were largely of American stock and were frequently among the best in the community. They would prefer that a physician be called if this could be done.

New permanent child-health centers established—8. The number of examinations of infants made at centers (outside Detroit and Grand Rapids) reporting during the year was 28,037.

New permanent prenatal center established—1. The number of examinations of mothers at centers (outside Detroit and Grand Rapids) reporting during the year was 1,580.

Lectures and talks by staff members—601. A number of radio talks were given.

An article was contributed monthly to the State medical journal; also articles for the State public-health bulletin and other publications.

Literature distributed—many thousand Federal pamphlets, as well as many thousand diet cards and much literature prepared by the State bureau. The bimonthly news-letter went to approximately 500 nurses and committee women.

Prenatal letters—27,142 distributed.

Exhibit material—30 maps and charts were prepared for loan on request; also many slides, posters, and 12 books of photographs for class use.

Study was made of the relations of the birth and death statistics (compiled in the bureau of vital statistics) to the infant mortality of the State. The 7,088 infant deaths in 1924 were tabulated by age groups and causes of death. A tabulation of the physical findings in the examination of 12,344 infants and preschool children was made by age groups and sex groups. The summary showed that (1) physical defects are more common in boys than girls; (2) physical defects are accumulated, increasing in frequency to the sixth year; (3) rachitic conditions lead in frequency of defects, followed in frequency by defective tonsils and adenoids, then by underweight, closely associated with artificial feeding.

The work of women in the extensive beet fields of the State has been observed to have a relation to the infant mortality rates, this rate being high in the areas where women are employed in beet culture.

Birth-registration certificates were sent to the parents of all infants whose births were registered in the State department of health, and each was accompanied by a leaflet giving information on infant care. This message on infant care reached approximately 98,000 families, or the parents of every child whose birth was registered in the State. This the parents received when the child was about 6 weeks old.

Volunteer assistance was given by about 200 physicians, 200 nurses, and 1,500 local women. It has been possible to organize a general central committee consisting of State presidents of organized groups of women, including representatives from the various women's fraternal orders and the parent-teacher association. Generally the State commissioner of health appointed a local chairman for the county organization, selecting from among the women in the counties who were members of the women's groups represented on the State committee. The county committees were also in position to support the initiation of county nursing service. Assistance was thus given by 14 state-wide cooperating women's groups.

MINNESOTA

Administrative agency:

State department of health, division of child hygiene.

Staff:

Director (physician), 5 staff nurses, 9 county nurses (6 part time), 1 educational agent (half time), 9 clerks (3 part time), additional medical assistants as needed for special work.

Activities:

Child-health conferences—27, at which 665 examinations were made. Of these 12 were for Indian children, with more than 296 examinations made.

Prenatal conferences—42, with 613 mothers attending.

The prenatal work was conducted in two or three counties simultaneously and a series of conferences held in each one. When the conferences were completed in one group of counties they were begun in another. Before the holding

of the conferences the director of the State division met with the physicians of the county and discussed plans with them. Then a prenatal nurse from the State staff was detailed to the county to work up the conference by arousing local interest and to prepare for the coming of the field unit which was to conduct it. Prenatal cases were located through the aid of physicians, club women, and church workers.

The policy of having the conferences conducted by some of the most prominent obstetricians in the State was continued, and their work was especially appreciated by the local physicians, who took advantage of the opportunity for consultation clinics provided. Each woman attending the conference was given a complete physical examination, a report of which was sent to her physician if she had already placed herself under the care of one. If she had not yet decided upon the physician to care for her confinement, the report card was sent to the county nurse, if there was one, with the request that it be given to the physician whom the woman finally employed. The State prenatal nurse remained in the community for a short time to do follow-up work with the women examined. After the conferences a general meeting of the women in the community was held at which the visiting obstetrician gave a talk on the hygiene of pregnancy, and if possible an educational film on prenatal care was shown.

Mothers' classes—133 sessions, with 1,316 women enrolled. Of these classes 40 were held for Indians, with an enrollment of 109. An exhibit and demonstration were included at each class.

Little mothers' classes—126. Special classes for Indian girls were held in two localities. Instruction in method of teaching little mothers' classes was given to senior students in three of the State teachers' colleges and to students in the home-economics department of the University of Minnesota. A four-day institute on methods of teaching little mothers' classes and infant and maternity classes, consisting of lectures by members of the State university faculty and demonstrations by nurses of the division, was held for public-health nurses. In the winter six regional conferences were held for rural public-health nurses, with an attendance of 126.

Group demonstrations—197, to farm-bureau clubs, to community women's organizations, and at county fairs.

Home demonstrations—3,829, of which 1,712 were made by Indian nurses. New permanent child-health centers established—8.

Lectures and talks by staff members—125.

Literature distributed—more than 150,000 pamphlets and leaflets on subjects pertaining to maternal and infant hygiene.

Prenatal letters—950 sample sets, 14,466 letters to mothers.

Correspondence course—to a registry of 2,043 women. An analysis of the registrants for the correspondence course during a two-year period showed that more than 80 per cent were mothers and about 60 per cent were under 30 years of age. The fact that 80 per cent were residents of towns whose population is less than 5,000 indicates that this method of instruction reaches the rural women.

The monthly reports of births sent by hospitals were checked against the original birth reports sent by physicians, and 589 unreported births were noted. Although the percentage of unreported births is not large, the value of checking the reports is indicated.

In an effort to encourage mothers to nurse their babies and to determine what percentage of the mothers in small towns and rural districts do nurse their babies, breast-feeding slips were sent to the mothers of all new babies in two counties in the State. These counties were selected because of their high infant mortality rates. To a card which was sent was attached a brief questionnaire for the mother to fill out and return to the State office, indicating how long she had nursed her baby and the reason if she had discontinued. It was planned to send an additional card to these mothers when the baby reached the age of 6 months and then that of 9 months. At the close of the campaign a report will be written on the data obtained.

Work with the Chippewa Indians was a feature of the maternity and infancy program. The figures relating to Indian infants at conferences and the class work with Indian girls and mothers (which have been given under

those subjects) show better attendance and results than are usually obtained in work with Indian populations. This, no doubt, is due to the fact that two Indian nurses were employed to do maternity and infancy work among the Indians and that a large part of their work was done by home visits and demonstrations. The work was begun through aid given by the American Child Health Association (which was not able to continue the aid). During the second half of the fiscal year the Minnesota Federation of Women's Clubs contributed toward the nurses' salaries.

MISSISSIPPI

Administrative agency:

State board of health, bureau of child hygiene and public-health nursing.

Staff:

Director (physician, half time), 5 staff nurses (1 part time), 8 county nurses (6 part time), 1 supervisor of oral hygiene (part time), 1 laboratory technician, 6 clerks (4 part time).

Activities:

Child-health conferences—257, at which 7,433 examinations were made.

Local dentists assisted in the examination work.

Midwives' classes—1,215 sessions. The course of eight lessons was completed by 728 women. The district nurses covering the State spent about two months in each county giving fundamental instruction to midwives, about 99 per cent of whom are negroes and 95 per cent unable to read or write. The county health officers have given constant cooperation in the work. The services of midwives are clearly necessary, because there are only about 1,600 physicians in the State and only 1,000 doing obstetrical work. Improvement was noted in the midwives' standards of work and of personal and home cleanliness and in their knowledge of use of the equipment given to them. County midwife meetings were held in about 82 counties. Midwives' community clubs and county midwives' associations were organized in a number of places and regular meetings held. At the beginning of the calendar year 3,355 midwives in the State were actively engaged in practice. Permits to practice were held in 1922 by 4,209 midwives. Very few permits have been revoked, but many midwives have ceased to practice.

Home visits—2,630 within the second half year. Of this number 546 were to prenatal cases, 994 to infants, and 1,090 to preschool children.

The number of visits made in the first half of the year was not reported.

The county maternity and infancy nurses engaged in all phases of the work, emphasis being placed on whichever project seemed most important at the time. As a result of the educational work done by the State bureau a number of counties employed their own county nurses, who gave a large part of their time to maternity and infancy activities.

Prenatal work was done by visits by public-health nurses in the homes, visits to the office of the public-health nurse, group conferences from time to time, and the distribution of literature on prenatal care.

The laboratory technician made throat cultures, urinalyses, Wassermann tests, examinations for intestinal parasites, and other laboratory tests.

One special piece of work done by the division of vital statistics was made possible by the use of maternity and infancy funds. A medical student was employed during the summer to check birth and death registration. He worked in seven counties and made 1,651 calls in homes, 52 to midwives, 36 to registrars, and 89 to physicians. Calls were also made on firms selling caskets to ascertain whether they were registered with the bureau of vital statistics, and visits were made to cemeteries in company with a local resident to learn the names of persons buried within the last six months. The list was later checked against the names reported by the local registrar. In the seven counties 358 births and 96 deaths had not been reported.

Lectures and talks by staff members—approximately 400.

Literature distributed—many Federal, State, and other publications, also birth certificates.

A short letter describing the work of the bureau was prepared weekly for the newspapers of the State.

MISSOURI

Administrative agency:

State board of health, division of child hygiene.

Staff:

Director (physician), 1 physician, 2 staff nurses, 3 county nurses, 1 nutrition worker, 3 clerks, additional medical and nursing assistants for special work as needed.

Activities:

Child-health conferences—146, at which 4,161 examinations were made. The correction of defects which had been noted at conferences averaged 17 per cent, and in some communities was 30 per cent.

Prenatal conferences—90, with an attendance of 2,298.

Mothers' classes—195 class groups, with 3,157 women enrolled. This has been one of the most important phases of the work of the county nurses. The course of 10 lessons was given to any group of women in the county who requested it. When the course was completed an infant clinic was usually held.

Little mothers' classes—95. In some communities this has been a vacation activity for school girls, but a number of junior high schools have made the work a compulsory course.

Dental clinics—5, with 258 children receiving care.

Nutrition classes—90. These were arranged on a county basis, each county selected being allotted one month for the work. Before the State nutrition worker's arrival in the county the county health department arranged for group meetings for mothers in at least six different communities of the county. In this manner the nutrition worker could give a series of four lessons to each group. The subjects discussed with the mothers were food selection, food habits, scoring lessons on usual diet, proper diet for expectant mothers, diet in overweight and underweight, and diet in constipation.

Group demonstrations—51, conducted at county fairs, community home-comings, farm picnics, and on other occasions. Among the subjects were preparation of artificial food, nursing care, and preparation for home confinement. Some talks on child care were given and educational films and slides were shown.

Home demonstrations—3,633, given by the county nurses. They included the following: Preparation of a feeding formula, home pasteurization of milk, care of the newborn baby, postpartum care, preparation of layette, preparation of sterile obstetrical pack for home delivery, and many other problems which the mothers desired to take up with the nurse.

A birth-registration campaign was made the feature of the observance of child-health day on May day. A chairman of May-day activities was appointed by the State board of health and an executive committee consisting of the county superintendent of schools, county health officer, and president of the county medical society was organized in each county. This committee enlisted the cooperation of interested organizations in the county. Each county worked through its school districts, and a complete report of births in that district in 1924 was made on forms furnished by the State board of health. All forms were returned to the bureau of vital statistics and the names checked against the records on file. If the bureau of vital statistics found a birth not registered, a letter was sent to the physician or midwife who had delivered the child requesting that the birth be registered as soon as possible. This campaign aroused much interest in birth registration. It is believed that when the next Federal check is made Missouri will be admitted to the birth-registration area.

New permanent child-health centers established—6.

Lectures and talks by staff members—190.

Literature distributed—116,546 pamphlets, leaflets, etc.

Prenatal letters—6,126 distributed.

Exhibit material—5 health films were loaned to 25 communities. A sterile obstetrical pack was also made, with mimeographed instructions for its preparation.

An intensive six-month campaign for diphtheria immunization was conducted, during which 3,397 children were treated. Local physicians aided by giving talks on the prevention of diphtheria, and two films on the subject were loaned to communities requesting them.

Because of the stimulation of interest through the work of the division four counties raised funds for the employment of county nurses, and the last session of the legislature passed a law giving county courts authority to appropriate money for public health nursing work.

MONTANA

Administrative agency:

State board of health, division of child welfare.

Staff:

Director (physician), 3 staff nurses (part time), 5 county nurses (part time), 1 laboratory assistant (part time), 2 clerks.

Activities:

Child-health conferences—1,033, at which 14,124 examinations were made. Attendance of mothers was not reported for the first half year; 4,922 mothers were reported as attending the conferences during the second half year, and 406 of these were given advice on prenatal care.

Mothers' classes—582 meetings, with a total attendance of 7,771 women.

Little mothers' classes—58 meetings.

Nutrition classes—36.

Demonstrations to groups—113, on maternity care, infant care, etc., to large groups in various communities, also at fairs and farmers' short courses.

Home demonstrations—24.

A demonstration of the efficacy of a permanent child-health center was made in one of the smaller communities of the State.

Maternity homes inspected—19.

New child-health center established—1.

Lectures and talks by staff members—789.

Members of the staff have given courses in maternity and infancy work to student nurses at hospital training schools and to persons enrolled in the farmers' short courses at the State agricultural college.

Provisional lists were compiled of maternity homes, midwives, crippled children, and feeble-minded children.

Literature distributed—10,515 copies of Federal pamphlets, also many State publications, diet cards, score cards, and birth-registration certificates.

Prenatal letters—809 sent out.

Exhibit material—films, slides, posters, sample layettes, and maternity packs were loaned on request to communities or responsible agencies.

Four traveling libraries were constantly in use, loaned to study clubs and others.

Silver-nitrate ampoules distributed—4,106 to midwives, maternity homes, and hospitals.

The State has been divided into four districts, each assigned to a public-health nurse, who supervised and coordinated the work of all nurses in her district and showed to communities and counties the need for maternity and infancy work and its value. The size of the districts made it impossible to cover them except in the most general way. For example, one district contains 15 counties in which a nurse may travel for miles without coming to any dwelling. In one county of this district there are no railways, telegraph facilities, nor telephones. In some other counties there are no hospitals nor nurses.

NEBRASKA

Administrative agency:

Department of public welfare, division of child hygiene.

Staff:

Director (nonprofessional), 2 nurses, 1 part-time social worker, 1 stenographer, 5 vital-statistics clerks (temporary), additional nurses employed as needed for special work.

Activities:

Child-health conferences—95, at which 4,763 examinations were made.

The percentage of corrections made in pursuance of conferences was estimated to be 75. Local people were relied upon to arrange for the

health conferences and to supply clerical and other assistance necessary to make the programs successful. Follow-up home calls were made on many defective children.

Mothers' classes—4, with 75 women attending.

Group demonstrations—41. Many of these were given before or after a child-health conference to groups of club women or mothers' clubs and others invited in for the occasion. The demonstrations included preparation for confinement, the making and sterilizing of material, and preparation of bed for delivery. Talks were given on child feeding and child care. One to three days were given to a community.

Maternity homes inspected—39.

Infant homes inspected—20.

Lectures and talks by staff members—39.

Prenatal letters—distributed extensively on the request of physicians; a few distributed by nurses and others.

Literature distributed—73,188 bulletins, many diet charts, height and weight tables, etc. A letter was sent to every home in the State in which a baby had been born within the year, and the services of the division were offered. These letters went to the most isolated homes in the sand hills, as well as to palatial city homes, and replies have been received from both. This enabled the division to distribute a large amount of literature in response to individual requests.

Volunteer assistance was given by 120 physicians who made examinations at conferences, 8 nurses who also assisted at conferences, and 123 club women whose cooperation was very helpful.

Some excellent work among the Indians in the northeastern part of the State was done by an Indian field nurse.

NEVADA

Administrative agency:

State board of health, child-welfare division.

Staff:

Executive secretary (nonprofessional), 7 nurses (part time).

Activities:

Child-health and prenatal conferences—269, at which 1,671 examinations were made of children, and 58 mothers were given instruction.

Dental care—given to 100 children.

Mothers' classes—13, with 219 women attending.

Little mothers' classes—57.

Home visits—2,802 within the last half of the year, of which 262 were to prenatal cases, 81 to maternity cases, 890 to infants, 1,164 to pre-school children, 11 to midwives, and 394 miscellaneous. The number for the first half of the year was not reported.

Demonstrations—78, on bathing the baby, proper clothing, arrangement of bed and sleeping room, preparation of feeding formulas, etc. A demonstration of a model health center was put on for three days during a meeting held by a State organization.

New child-health center established—1.

Lectures and talks by staff members—119.

Literature distributed—bulletins and other printed material.

Prenatal letters—distributed as part of the routine work of the staff.

Some service was given by the nurses of the division to all counties in the State except two, the inclusion of which was planned for an early date.

NEW HAMPSHIRE

Administrative agency:

State board of health, division of maternity, infancy, and child hygiene.

Staff:

Director (nurse), 6 nurses, 3 clerks (2 part time), additional medical assistants as needed for special work.

Activities:

Child-health conferences—64, at which 2,085 examinations were made. It was possible to have a third as well as a second conference in some towns. A dentist assisted at some of the later conferences. An interesting development in conference work in a mountain county was the examination of children in their homes by conference physicians, on several

occasions when violent rains prevented the mothers from bringing their children for examination on the conference date. The physician went to the homes, accompanied by the State nurse, and was able to give a complete examination to nearly every child in the town in which conferences had been planned.

Prenatal conferences—22, with an attendance of 373 women. Individual conferences were held with 1,829 women.

The demonstration which for two years has been conducted in Manchester by a nurse giving her full time to this work was to be concluded within two months after the close of the fiscal year under review. The program has been as follows: The mother was registered with the nurse as early in pregnancy as possible, and if she was not under a physician's care she was advised to place herself under medical supervision at once. If she had already done this the nurse continued on the case only with the physician's consent. The routine care included group conferences, visits to the homes, tests of blood pressure and of urine. Trained nursing care was urged for every case, and it was possible to provide it through cooperation of local agencies. After the birth of the baby one or more visits were made, as circumstances required, and the mother was advised to have a postpartum examination six weeks after delivery. The group conferences were held weekly and attended not only by the prenatal and postnatal cases, but by interested mothers, grandmothers, young women contemplating wifehood and motherhood, and those considering nursing as a profession. A course of nine lessons was given, including instruction regarding the hygiene of pregnancy, preparation for confinement, proper food and clothing for mother and baby, preparation of obstetrical package, importance of breast feeding, and the value of periodic physical examinations of the baby. The work resulted in a decided reduction in the number of stillbirths and the number of deaths of infants under 1 month of age in the supervised section of the city, in comparison with the figures from those sections where no prenatal work was being done.

Emergency obstetrical packages made by the women's clubs of the city were placed on sale at five drug stores and one child-health center.

Mothers' classes—53 class meetings, with a total attendance of 1,333 (in addition to the weekly classes in Manchester).

Little mothers' classes—9.

Dental clinics—4, with 61 children receiving care.

Demonstrations and exhibits—59 at conferences, medical societies, public-health meetings, and county fairs. These included exhibits of an obstetrical outfit, proper clothing for the expectant mother, the baby's outfit and food, utensils for modification of milk, and arrangement of room and bed for confinement. A nurse was in charge to explain and demonstrate the exhibit.

Home demonstrations—254. Among the subjects were: The 24-hour care of the baby; bathing; care of cord; proper cleansing of scalp; method of putting on a yarn truss; massage after infantile paralysis; instruction to mothers of children wearing casts; preparation of modified milk, barley water, vegetable soups, and various foods for babies and small children; the way to give a sun bath; the making of layettes; preparation of the baby's tray and basket; making of the obstetrical package; and preparation of room for confinement. Instruction was given to some member of the family in regard to bedside care of mother and baby, as well as of older children.

Maternity homes inspected—18.

Infant homes inspected—35.

New permanent child-health centers established—2.

Lectures and talks by staff members—179. On four occasions the nurses were asked to explain the work before men's clubs. Three of the medical societies also requested such talks and passed formal resolutions of approval.

Literature distributed—more than 150,000 copies of bulletins, diet slips, prenatal letters, weight charts, etc. After the first bulletin had been sent to a mother the successive bulletins appropriate for the age of her child were sent at intervals of three months.

In many rural towns, especially in the northern part of the State, there are no nurses to care for mothers during confinement, and some have also no

physicians within 40 miles. The nurses doing maternity and infancy work have attempted to find in such towns one or two women who could give some time for service at confinement and for a short time after, and to teach them some of the things most necessary for them to know.

The work with the preschool child attracted much favorable attention. The superintendent of schools attended many of the child-health conferences and gave his time and the use of his car for the transportation of mothers and small children who otherwise would have been unable to attend the conferences. Cooperation in the work of the division was received from 22 public-health nurses employed by various agencies. The nursing agencies employing public-health nurses have begun to take an active interest in the work for the preschool child; and the division's records have been made use of by many of the nursing organizations and all of the Red Cross nurses. In order that these nurses might visit in the home and give advice to the mother the division sent to those nurses each month the names and addresses of infants born in their respective territories.

Volunteer assistance was given by 210 lay workers.

NEW JERSEY

Administrative agency:

Department of health, bureau of child hygiene.

Staff:

Director (physician), 15 staff nurses (2 part time), 13 county nurses, 7 clerks.

Activities:

Child-health conferences—weekly at the child-health centers (of which the State has between 90 and 100), at which 38,260 examinations were made. It is estimated that about 60 per cent of the defects noted at conferences were corrected.

Prenatal conferences—20, with an attendance of 203.

Little mothers' classes—20.

Nutrition classes—7, for mothers of preschool children, held in cooperation with the State department of agriculture.

Home demonstrations—17,427 in the second half year, on the bathing and dressing of the baby, the care of a sick baby, etc.

New permanent child-health centers established—17.

New permanent prenatal center established—1.

Midwife classes—98 meetings, with a total attendance of 1,267 women.

A continuous check-up is maintained in regard to unlicensed midwives. A total of 386 midwives were practicing during the year, and their delivery of some 18,000 infants is recorded. The number of midwives of foreign birth is large, and the foreign-born population of this largely industrial State are prejudiced against physicians, preferring midwife service. The number of midwives has been decreasing with the raising of the standards which resulted from the law enacted in 1919 requiring midwives to be licensed and registered. For the convenience of the bureau of child hygiene the State was divided into 12 sections with a district supervisor in each district. Any stillbirths or puerperal deaths which occurred in each of these were ascertained through the cooperation of the State bureau of vital statistics, and a statement concerning all cases investigated was obtained from the physician, hospital, and midwife, and from the patient's family. These statements were transmitted to the board of medical examiners. Two cases of puerperal death were considered to constitute cause for the revocation of a midwife's license. There is also the lesser penalty of revocation of license for a given period for repeated minor offenses. It has been noted that the standards of the midwives' work are improving, and they have cooperated with those making efforts in their behalf. Campaign work was done among them to demonstrate the value of ability to make urinalyses.

Maternity homes inspected—23.

Infant homes inspected—344.

Lectures and talks by staff members—285.

Exhibits—arranged for a number of fairs and health weeks.

Literature distributed—preschool and prenatal leaflets, midwife-instruction folder, cards, etc. (number not reported).

Campaign work was done to induce the hospitals in the State to arrange to keep infants with their mothers if either the child or the mother was a patient in the hospital.

In 25 communities the nurses carried on demonstration child-hygiene programs for the purpose of inducing these communities to assume the financial responsibility for a nurse.

Volunteer assistance was given by 96 physicians (who made the examinations at the child-health conferences).

NEW MEXICO

A⁷

Administrative agency:

Department of public welfare, bureau of public health, division of child hygiene and public-health nursing.

Staff:

Director (nurse, part time), 3 physicians (part time), 5 county nurses (3 part time), 5 clerks (3 part time). Additional medical assistants for short periods as needed for special work.

Activities:

Child-health conferences—25, at which 354 children were examined.

Prenatal conferences—7, with an attendance of 18. Because the districts in which the nurses worked are thinly settled it was impracticable to bring groups of mothers and children together for conferences. The nurses could do more effective work by visiting the mothers in their own homes.

Each of two nurses was assigned to a county for a period of three or four months to put on a demonstration program in an effort to interest the local community in initiating its own maternity and infancy program. The other three nurses carried on a maternity and infancy program in connection with the work of the county health units to which they were assigned. All county nurses included maternity and infancy work in their programs. The health officers in these counties also gave half time to maternity and infancy work.

Home visits—3,412, of which 347 were to prenatal cases and 2,865 to infants and preschool children.

Midwives' classes—7, with an enrollment of 10. Instruction was also given to 135 midwives in their homes. The midwife situation has greatly improved with the Federal assistance given in this manner (see p. 68).

Little mothers' classes—8, with an attendance of 59.

Group demonstrations—11, most of them before groups of club women. Among the subjects were the making and putting on of abdominal T and breast binders; the making of a bed for delivery, using rubber and draw sheets and newspaper pads; the articles required for confinement and the postnatal period; and the bathing, dressing, and care of a newborn baby.

Home demonstrations—211. These included nursing, care of sick infants, as the giving of enemas, taking temperature, feeding with a medicine dropper, etc.; the preparation of artificial food; and the care of mothers after delivery. The isolation of patients and the disinfection of contaminated articles were especially stressed in one community that had a severe diphtheria epidemic among the children of all age groups, and here a nurse administered toxin-antitoxin for 103 infants and preschool children.

Lectures and talks by staff members—118. Two films were also used.

Literature distributed—2,517 bulletins, and the like. Forty-eight press articles were prepared and distributed.

Volunteer assistance was given by 22 physicians, 3 nurses, and 32 lay workers.

NEW MEXICO

B⁷

Administrative agency:

State department of public welfare, bureau of child welfare.

Staff (all part time):

Director (social worker), 1 social case worker, 1 stenographer.

Activities:

The maternity and infancy work was done in connection with children's agencies and directly with unmarried mothers and illegitimate children.

⁷ See footnote 4, p. 19.

General educational work was done in regard to the importance of keeping the unmarried mother and her child together at least through the nursing period, and in reference to placing children for adoption.

During the fiscal year under review (after which period all activities under the Federal maternity and infancy act in this State were concentrated in the bureau of public health) the bureau of child welfare under its maternity and infancy program handled 94 cases. In these cases of mothers and young children such questions were involved as the establishment of paternity, the securing of financial support by other means (thereby enabling the mother to keep her child), adoption, institutional care for children, and care in sickness.

NEW YORK

Administrative agency:

Department of health, division of maternity, infancy, and child hygiene.

Staff:

Director (physician), associate director (physician), executive clerk, 4 physicians, 23 staff nurses (and 24 part-time maternity and infancy community nurses employed from Sheppard-Towner and local funds), 3 county nurses, 2 midwife inspectors (nurses), 1 organizing field agent, 1 office manager, 4 clerks, 8 stenographers, 1 advance agent, 1 chauffeur.

Activities:

Child-health conferences—236, at which 4,895 children were examined. In addition to the conferences conducted by the State staff, 2,049 conferences were conducted in local communities where the staff was partly supported by maternity and infancy funds, with 17,694 children attending and 6,027 physical examinations made. The State units conducted the child-health conferences in communities most likely to continue them on a local basis after one or two demonstrations by the State unit.

Prenatal conferences—758 (including 603 in New York City). The local staffs, partly supported by maternity and infancy funds, held 1,488 additional conferences, with 8,406 women in attendance and 3,116 examined. A nurse organized the prenatal conferences conducted by the State unit, making the preliminary arrangements, calling on prospective patients, and obtaining the permission of physicians for patients' attendance. She also made the follow-up visits on patients who attended the conferences, unless there was a local nurse who could do this work.

New permanent prenatal centers established—10.

Mothers' classes—242 class groups, with a membership of 2,606.

New permanent child-health centers established—30. At the close of the fiscal year there were 28 centers supported partly by maternity and infancy funds. In addition there were 108 supported entirely by municipal or private funds. These received advisory and supervisory service from the State division and made reports to it.

In 28 communities child-health consultations were held regularly monthly or twice monthly throughout the year by part-time physicians who received an honorarium from Federal funds.

Another type of part-time medical assistance has been the holding of so-called "type C" consultations where children are examined in the smaller communities twice yearly, the physicians making the examinations being paid \$15 per diem from Federal funds. Within the fiscal year 21 such consultations were held in 21 communities with 37 physicians and 518 persons in attendance. A new development of the type C consultations occurred where a county medical society sponsored the holding of such consultations, determined the place where they should be held, and appointed physicians from the society to make the examinations. These physicians were also paid \$15 per diem, and the work was carried on on a county-wide plan. Eleven consultations were held by 23 physicians with 184 in attendance. Other county societies considered taking up this type of work, and progressive development of this feature was expected.

Sixteen specialists in obstetrics and pediatrics served as regional consultants for the division, receiving a small per diem compensation. They addressed medical societies and other groups of physicians in various parts of the State, conducting pediatric clinics and graduate courses in obstetrics and pediatrics. During the year they gave two courses in obstetrics, consisting of six lectures on prenatal care, postpartum care, management of normal labor,

pathology of pregnancy (two lectures), and pathology of labor, to county medical societies; and a clinical group of physicians on Long Island gave one course of pediatric clinics. The course in pediatrics covered natural feeding, artificial feeding, nutritional disturbances, tuberculosis and cardiac diseases in young children, posture or office orthopedics, and protective inoculations.

Six community demonstrations were made, as follows:

1. Early in 1925 it was decided to undertake a rural maternity-hygiene demonstration in Tioga County in cooperation with the Maternity Center Association of New York and the Tioga County Medical Society, which appointed an advisory medical committee. Two nurses were first assigned to this field to make home visits on prenatal cases reported to them by physicians, to organize group conferences for instruction in maternity hygiene, to do what delivery service could be handled, and to give such postpartum care as might be required by the physicians. Within the first six months of the year 123 patients had been referred to the nurses for general maternity instruction and care, and it was found necessary to add a third nurse for the work. The establishment of three centers was considered, but only one of these centers was put into operation (at Owego). This was fully equipped with teaching and exhibit material.

2. After hearing a lecture on breast feeding by one of the regional consultants the Cortland County Medical Society voted for a demonstration on a county-wide basis in Cortland County, and a nurse was assigned to the work in April.

3. At the request of the Tompkins County Medical Society a breast-feeding demonstration was started in Ithaca, N. Y., in March. The nurse visited each physician, acquainting him with the idea of the demonstration and offering to assist in any difficult feeding cases he might have. Lectures and demonstrations in regard to breast feeding, relation of nurse to physician, methods of maintaining breast feeding, the difficulties affecting mother and baby, and technique of manual expression were given to the nurses in training at the Ithaca Hospital; and a lecture was also given to graduate nurses.

4. In Hornell a breast-feeding demonstration covered six months. There were 127 babies registered, of whom 106 completed the six-month period on the breast (98 per cent were on the breast at the end of the first month and 84 per cent at the end of the sixth month).

5. At the termination of a six-month demonstration nursing service in May, 1925, the Freeport good-health clinic, supported by a fraternal organization, was organized and began operation with a resident nurse on duty, the State nurse being withdrawn. One nurse administered the work, doing clinical and follow-up work for maternal, infant, and child hygiene, and assisting the county tuberculosis nurse at a monthly clinic. An office assistant performed the clerical work, assisting in dental and other clinics if necessary. The State division supervised the work and the keeping of the records. The health officer, who was chairman of the public-health committee of the county medical society, supervised the clinical staff. The office, waiting room, nurses' conference and exhibition room, dental room, and examining room for two physicians were completely furnished with the equipment necessary for a first-class maternal and child-health center. The average attendance at consultations for infants and preschool children was five; that for a dental clinic four.

6. On April 3 the associate director of the division presented the matter of a model child-health and prenatal center to the members of the Fulton Academy of Medicine, who later unanimously voted for such a service and appointed a medical advisory committee to work with the nurse or nurses detailed to this work. About the middle of April a nurse was detailed to Fulton and began organization. The committee directing the activities of the local child-welfare nurse assigned her to service with the State nurse. The service was started with the idea of establishing a model program with a view to the reduction of the infant and maternal death rates and also developing model nursing procedures so that finally the center might be used for teaching purposes. Except for consultations by physicians most of the program was in operation by the end of the fiscal year under review. On requests from physicians the nurse made prenatal and postpartum visits, and gave some delivery service. There is much need of breast-feeding work in the city. That part of the program was vigorously promoted, and the nurses in charge received good cooperation from the local physicians. By the end of the year 124 feeding cases were recorded as under supervision.

In the cities of Cohoes, Amsterdam, and Fulton, and in Rensselaer County (including the city of Troy) surveys were made of the conditions affecting the mortality and morbidity of mothers and infants.

A breast-feeding campaign in Nassau County was brought to a close December 31, 1924. Visits were made to 2,815 babies who were born between January 1, 1923, and April 1, 1924. Of all the babies under observation 92.1 per cent were breast fed at the end of the first month, 59.6 per cent were kept on the breast nine months or more, 70.9 per cent of the babies who died were being artificially fed at time of death, and 50 per cent of these died from digestive disorders. American mothers comprised the largest group of mothers and had the lowest percentage of infants breast fed for nine months.

A campaign for better reporting of cases of puerperal sepsis was instituted early in the year, and a questionnaire and special letters were sent out to all physicians and hospital superintendents in the State. This material was also necessary for the purpose of making a study of the problem of puerperal sepsis, which is still too large a factor in the maternal mortality of New York State. An important feature in this campaign was the issuance of a list of pathological conditions which are reportable as cases as well as deaths under the heading of puerperal sepsis. This list was made of pocket size so that physicians making out case reports or death returns could refer to it and in this way have the returns come in to the department properly classified as puerperal sepsis.

As a result of the educational and demonstration work of the State division many local communities undertook similar work by the use of local funds and initiated permanent work of various kinds. Local campaigns to educate mothers in the importance of breast feeding of babies have been undertaken, mothers' health clubs have been formed, one local public health nursing service was begun, and many local child-health and prenatal conferences were held.

The State division gave financial assistance toward the employment of a full-time public-health nurse for one year or longer in one community having high infant death rates. Three other communities were selected for similar service to begin when qualified nurses could be found. The State consultant nurses supervised and assisted these nurses.

Home visits by nurses—10,326 to give individual instruction on prenatal or postpartum care; 37,443 to give instruction on breast feeding and the care of infants and preschool children.

Lectures and talks by staff members—299. A lecture course for nurses and physicians, consisting of four lectures on nutrition, was given eleven times by a nutrition specialist to about 300 physicians and nurses.

Work among the midwives of the State was done by the two midwife supervisors. Three new midwives' clubs were organized (locally) and tentative plans made for others.

Literature distributed—17,875 copies of Federal bulletins, 71,486 State pamphlets, also 2,100 reports of the division, 86,277 diet cards, etc.

Exhibits—layette and tray exhibits, consisting of Chase doll, two complete layettes, baby's toilet tray and mother's tray, set of posters illustrating baby's bath, were prepared and shown at 60 county fairs. More than 15,000 persons were reached by demonstrations, and more than 3,000 interviews on individual problems of maternity and child care were held by nurses in this connection. This material was also constantly used by nurses teaching mothers' health clubs and conducting health conferences.

NORTH CAROLINA

Administrative agency:

State board of health, bureau of maternity and infancy.

Staff:

Director (physician), 1 physician, 3 staff nurses, 16 county nurses, 1 clerk.

Activities:

Child-health conferences—359, at which 3,097 examinations were made.

Prenatal conferences—93, with an attendance of 2,519 women.

Midwives' classes—55, in the second six months, with an enrollment of 480. The course was completed by 752 women in the year.

Mothers' classes—68 class meetings, with a total attendance of 4,123 women.

Nutrition classes—450 class meetings for preschool children.

Home visits—28,569, at which mothers were advised on some phase of the hygiene of maternity and infancy. This is one of the major features of the work of the county nurses.

New permanent child-health centers established—16.

New permanent prenatal centers established—16.

Lectures and talks by staff members—70 reported during one half year.

Literature distributed—more than 125,000 pamphlets and leaflets, height and weight charts, diet cards, etc.

Prenatal letters—43,420 sent out.

The maternity and infancy work in North Carolina was done largely on the county unit plan, the expenses being borne jointly by the State bureau and the county. The nurse did maternity and infancy work exclusively in accordance with a program outlined by the State bureau. She assisted in the establishment of infant and prenatal centers, helped to conduct infant and prenatal conferences, visited the mothers in their own homes, conferred with those who called at her office, and taught midwives in accordance with an outline which has been adopted by the county medical societies. The conferences for mothers and children were conducted by local physicians, some of whom were paid for this service (others giving their time). (A county program is always undertaken for a year.)

No nurse was detailed to a county until she had completed a course of training under one of the State supervising nurses and satisfied the director of the bureau of maternity and infancy that she thoroughly understood the program to be undertaken. Her work was supervised by the State supervising nurses.

NORTH DAKOTA

Administrative agency:

Department of public health, division of child hygiene and public-health nursing.

Staff:

Director (physician), 1 nurse, 1 clerk.

Activities:

Child-health conferences—127, at which 2,817 examinations were made.

Many of the conferences were return visits to communities in which conferences had been held last year. In these places it was found that an encouraging number of the defects noted by the examining physician at the conference of the previous year had been corrected.

Prenatal conferences—43 in the first half-year and a number in the second half-year in conjunction with child-health conferences.

Assistance was given in the birth-registration campaign in the first six months of the year. North Dakota entered the birth and death registration areas in December, 1925, as a result of the campaign.

New permanent child-health centers established—2.

New permanent prenatal center established—1.

Lectures and talks by staff members—69.

Literature distributed—15,846 pamphlets.

Volunteer assistance was given by 22 physicians, 19 nurses, and 336 lay workers. The physicians cooperated throughout the State, and much of the success of the conference work was due to their support in creating local interest as well as their aid at the conferences. Local organizations were helpful in preparing for the conferences.

The child-health conferences held annually in connection with the State fair have aroused so much interest that a special building was planned for the accommodation of future conference work at the fairs.

OHIO

Administrative agency:

Department of health, division of hygiene.

Staff:

Director (physician), 1 physician (part time), 4 staff nurses (1 part time), 8 community nurses, 1 nutrition worker, 1 inspector of maternity homes (part time), 4 clerks (2 part time), 1 lecturer (part time), 1 publicity worker (part time).

Activities:

Child-health conferences—62, at which 2,405 examinations were made.

The work of the division of hygiene has been supported and furthered by a large group of specialists from the Ohio Medical Association. Physicians in various parts of the State responded generously to requests for assistance, sometimes all those in a community being present at the conference held there.

The major piece of work undertaken was five community demonstrations of the value of maternity and infancy work in the public-health field. One of the determining factors in selecting the community in which to carry on the demonstration was a high local maternal and infant death rate. Two maternity and infancy nurses from the State staff were assigned to a public-health unit in each community. Each nurse in the unit divided her time between maternity and infancy work and general public health, the equivalent of the full time of the maternity and infancy nurses being made up by the entire group. More than the required amount of time was invariably given to maternity and infancy work. At the health centers operated in these five community demonstrations 519 prenatal cases, 1,971 infants, and 1,120 children of preschool age were registered during the last half of the year.

Home visits—10,387, of which 1,359 were to prenatal cases, 5,927 to infants, and 3,101 to preschool children.

Nutrition classes—6.

Maternity-hospital inspections—261. There are approximately 200 maternity hospitals in the State. The term "maternity hospital" is applied to small institutions whose capacity is not more than 2 to 8 beds, as well as to the large and well-known hospitals. These hospitals provide 2,265 beds for maternity purposes alone. All are licensed and inspected annually by the State department of health. They are required to make detailed reports and to conform to the regulations adopted by the department. Because of such statutory authority it has been possible to eliminate most of the questionable homes and to compel a raising of the standards of care.

Surveys—2. In one of these it was found that 40 per cent of the districts covered had no regulations concerning the production and distribution of milk. The other survey was in regard to the midwife situation in the State.

Lectures and talks by staff members—794, to an attendance of 107,950.

Fifteen radiophone messages on the prevention of deformities in children were also sent out.

One piece of educational work thought to be far-reaching in its effects was done in connection with county fairs. Exhibits and motion pictures were shown and lectures given in a tent especially equipped for the purpose to audiences totaling about 75,000.

Maternal and infant mortality statistics were compiled for 1923 and 1924.

OKLAHOMA

Administrative agency:

Department of health, bureau of maternity and infancy.

Staff:

Director (physician), 7 nurses, 7 clerks (4 part time).

Activities:

Child-health conferences—232, at which 5,710 examinations were made.

Prenatal conference—1. In addition 2,614 mothers were reached through individual interviews.

Mothers' classes—15, with 178 women attending.

Little mothers' classes—28.

In the last half of the year the bureau began the work of popularizing the course in child care and training which was added to the public-school curriculum in 1923. The combination semiproject-drill-demonstration method was used. From the problem "given a cross baby in the home, what can little sister learn to do to help mother care for it?" were formulated five lessons: Namely, the infant's layette and dressing the baby, the baby's bath, the baby's bed, and the nursery corner, the feeding of a normal baby, and first aid and home nursing. The demonstrations were first introduced as supplementary to the theoretical course in child care and training taught in the normal schools. After the State department of public instruction had

approved the idea a one-week course was given to every high-school and junior high school girl in two county seats. Here they received the hearty approval of the teachers, parents, the State department of public instruction, and the medical profession. The girls called upon local physicians (with whom the nurses had already planned the work) for special information concerning infant feeding, bathing, etc.

Home demonstrations—641.

New permanent child-health centers established—2.

New permanent prenatal center established—1, in connection with one of the child-health centers.

A nurse's institute was held for two weeks in July in the senate chamber of the State capitol. Beside the routine instruction addresses were given by the heads of various prominent state-wide organizations and State departments of Oklahoma and other States.

In five counties an investigation was made to ascertain what physicians were not reporting births and deaths, and why.

In two counties and in two cities the number of preschool children was ascertained by the name, age, sex, nationality, character of attendant at birth, and registration of birth.

Work done over a wide territory had to be arranged and executed very methodically to get the best results. For example, one nurse, by covering her district of 13 counties twice in less than three months, was able to supervise child-health conferences in 33 different points, promote 41 public-health meetings, and place exhibits on display in 10 places. Approximately 20 children were examined by appointment at each place. On her first trip the nurse arranged with the county home demonstration agent to sponsor the conferences through her clubs and with the local physicians to make the examinations. On her second trip she set up and took down the conference equipment, weighed and measured the children, and also took histories when no local nurse was available. The public-health talks were given by various members of the State department of health and by local physicians.

In a part of the State where more work had been done the conferences were usually arranged by local clubs. Although most of the 100 or more children brought to each of these conferences were from families of higher economic status than those of the rural sections, they seemed quite as badly nourished, largely through their parents' ignorance of proper nutrition.

A complete set of exhibit material was supplied to each nurse. An item mentioned incidentally in the report of a nurse in charge of a child-care exhibit at a State fair emphasized the necessity for nutritional education. The schools of the town had been dismissed for one afternoon so that the school children could visit the exhibit, and the nurse reported that as she finished explaining it to the children, having "the tiniest ones on a bench up in front," she shook hands with each one "as each pledged he would no longer drink coffee or tea." The most interesting fact about it all was that the mothers said the children stuck to their pledges.

Literature distributed—5,000 copies of each of several Federal, State, and other publications. Some new pamphlets prepared by the bureau during the year were: The Mother To Be, Dental Hygiene for Mother and Child, The Confinement Room and the Sterile Obstetrical Package, Diet Card for the Expectant and Nursing Mother.

Prenatal letters—approximately 4,000 sent out.

Lectures and talks by staff members—401.

Volunteer assistance was given by 210 physicians, 2 dentists, 10 nurses, and 510 lay workers.

OREGON

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (physician, serving 8 months), assistant director (nurse, serving 4 months), 9 county nurses (part time), 1 clerk.

Activities:

Child-health conferences—42 held in counties having a maternity and infancy nurse with 1,126 examinations made; 47 held in other counties with 1,522 examinations made. The director also served as a medical director for the Portland Visiting Nurse Association, which conducted 165 conferences at which 2,106 children were examined.

Prenatal conferences—168 (held in Portland), with an attendance of 915. These were held in cooperation with the department of obstetrics of the Oregon Medical School, which supplied the medical service and equipment, and with the Visiting Nurse Association of Portland, which attended to the follow-up work in the homes. The bureau of child hygiene supplied the prenatal supervisor. The public library and other organizations furnished the place in which to hold the conferences (together with the necessary heating and lighting), also the preliminary announcement and publicity work.

Mothers' classes—2, with 27 women attending.

Little mothers' classes—14.

A dental clinic was established in one county unit and, with the help of nurses, 5,420 children were given dental examinations.

Home visits—1,628 concerning child welfare, 276 to maternity and prenatal cases, in five counties.

New child-health centers established—7.

New prenatal centers established—4.

Lectures and talks by staff members—99. Radio courses were broadcast through the State university and agricultural college.

Prenatal letters—817 complete sets distributed.

Literature distributed—Federal and other publications.

The bureau cooperated with the State university in preparing and conducting a correspondence course in prenatal and infant work.

Certificate receipts for birth registration were issued. The causes of infant and maternal deaths in 1923 and 1924 were compiled, and the findings tabulated and prepared for publication.

Volunteer assistance was given by 30 physicians, at least 50 nurses, and more than 100 lay workers.

PENNSYLVANIA

Administrative agency:

Department of health, bureau of child health, preschool division.

Staff:

Director (physician), 3 physicians (2 part time), 2 staff nurses, 124 county and community nurses (part time), 2 midwife inspectors (physicians), 11 clerks, additional dental and medical assistants as needed for special work.

Activities:

Child-health conferences—7,054, at which 12,542 children were examined. The number of visits made by children to these centers was more than 64,000. Correction was reported of 11,583 defects noted. In the 225 non-State centers (those operated with other than State nurses officiating) 59,812 children were examined, about 250,000 visits to the centers being made.

New permanent child-health centers established—59.

By means of three workers kept constantly in the field the State division served in an advisory capacity both the State and non-State centers. Record forms and literature for distribution were furnished them, and all made reports of their work to the State division, no matter by what agency they were conducted.

A health and dental car, staffed at first by two physicians, two dental hygienists, two nurses, and a driver, later by four or five physicians and three to five nurses, was put into the field on June 1 to work during the summer months. The car was sent into local communities and child-health conferences held in each place visited. County committees were organized to have charge of publicity and the arrangements for the conferences. In June visits were made to 24 towns in one county, and examinations were made of 1,172 children. Dental hygiene was a special feature of the work, 697 children having their teeth cleaned by the dental hygienists. Plans were made for close follow-up work with the cooperation of local chairwomen and nurses to try to obtain the maximum number of corrections of defects found at the conferences.

Prenatal conferences—468. These were held weekly at 9 State centers and 79 non-State centers. The conferences at State centers were attended by 249 mothers and the conferences at non-State centers by 12,000 mothers.

Home visits—more than 6,000 to prenatal cases within one six-month period.

Little mothers' classes—32, conducted in parochial schools during one six-month period.

A beginning of nutrition work has been made by some of the State nurses. The work of immunization against diphtheria which had been begun was continued in the first half of the fiscal year under review, 21,799 ampoules of toxin-antitoxin having been supplied for use.

Intensive work with midwives was done in seven counties by two staff physicians. In four of the counties the work had been begun in 1922; in the other three the first work was done during the fiscal year under review. In this group of counties were about 386 midwives, each of whom automatically became a member of the class conducted in her territory. Besides instructing them in class groups the physicians also visited them in their own homes. The State nurses in these counties visited all cases attended by midwives, and the physicians visited to investigate the deaths of mothers or of babies within the first week of life. Statistics kept for the four counties in which the work was first undertaken showed that during the calendar year 1924 the number of births attended by midwives was 6.2 per cent of the total births in one county, 11.7 in the second, 18.1 in the third, and 25.1 in the fourth. The total number of deliveries by midwives in the four counties was 5,482, and the number of maternal deaths was 13. This number included deaths of all women whom a midwife had attended, even though a doctor was called in later and signed the death certificate.

The accomplishments of the work have been the obtaining of better delivery methods, the elimination of unlicensed women from practice, and the establishing of an esprit de corps among the women, especially in two counties where they organized a midwife league.

A number of vital-statistics clerks were employed to prepare the birth-notification certificates sent out to mothers on receipt of birth-registration data. Greater accuracy in registration resulted, inasmuch as parents were interested in causing any needed corrections to be made, and a wider appreciation of the value of registration was manifested. The clerks made separate compilations of infant and maternal mortality statistics for the seven counties in which special work with midwives was being carried on.

Seven communities having high infant death rates accepted the division's offer to contribute \$1,000 during a 12-month period to the support of a public-health nurse if the balance of the expense were met locally. The nurses, devoted to maternity and infancy work an amount of time proportionate to the State's share of the total budget. The object was to demonstrate the value of the work so that the community would assume full financial responsibility for a local maternity and infancy program.

Literature distributed—more than 350,000 pamphlets, also dodgers, diet lists, record forms for health centers, and a large number of bulletins in foreign languages.

Lectures and talks by staff members—141, with an attendance of 16,332 persons.

Local physicians to the number of 375 assisted in the examination work at the State centers, and more than 300 assisted at the non-State centers, some volunteering their services, others accepting a small honorarium. Excellent local cooperation from lay workers was received.

RHODE ISLAND⁸

Administrative agency:

State board of health, division of child welfare.

Staff:

Director, 4 nurses, 1 field secretary, 1 stenographer.

Activities:

Child-health conferences—2 each week. The number of children examined was not reported.

Home visits—4,164, made by the staff nurses.

Lectures by staff members—3.

The field secretary met incoming trans-Atlantic steamers to inspect the children under 5 years of age.

⁸ Rhode Island accepted the benefits of the act in April, 1925. The report submitted covers the work done in the remainder of the fiscal year (May and June) 1925.

SOUTH CAROLINA

Administrative agency:

State board of health, bureau of child hygiene and public-health nursing.

Staff:

Director (nurse), 1 physician (part time), 4 staff nurses (2 part time), 1 county nurse, 1 midwife supervisor (nurse), 3 clerks; mechanic and motion-picture operator as needed.

Activities:

Child-health conferences—457, at which 7,046 examinations were made.

The child-health truck revisited communities which it had previously entered. Many parents who had had the defects of their children corrected brought the children to the return conference to show that the advice given had been followed.

Prenatal conferences—194, with an attendance of 1,258.

Mothers' classes—31, with 529 women attending.

Little mothers' classes—29.

Home visits—952, made by one nurse in one county in which she worked for the entire year. The number of visits made by the other nurses was not reported, but home visiting was a part of the work of all the nurses.

New permanent child-health centers established—6.

The State nurses were loaned to counties for periods of three months at the request of the respective county medical societies. Frequently a local organization, such as the parent-teacher association or some club, asked the county medical society to make the request. The nurses held mothers' classes and conferences for infants and preschool children, instructed midwives, and made home visits. Invariably this demonstration work created an agitation for permanent work, and many counties employed public-health nurses. Generally a county appropriation was made to finance such work, but there were also instances in which a part of the expense the first year was borne by federated clubs or the parent-teacher association.

Lists of births and deaths were compiled in an effort to determine which places in the State had the highest death rate. Birth certificates accompanied by letters were sent to mothers when the birth of a child was reported.

The motion-picture outfit which works under the department of rural sanitation used films supplied by the bureau of child hygiene, and it showed on each occasion at least one film concerning maternity and infancy work. The films were shown almost exclusively in rural districts, usually in a school-house or church. Among the audiences, who came in buggies or riding on mules from places many miles away, were many persons who had never seen a motion picture before.

Care for crippled children was obtained through the cooperation of an orthopedist who attended a number of the child-welfare conferences, noting about 100 cases needing correction in the 30 counties visited, and prevailed upon the State legislature to take legal action looking toward the treatment of crippled children.

Midwives' classes—183, with an enrollment of 2,206 women, of whom 844 completed the course. Much improvement has been noted among the midwives. They have tried to raise the standards of their practice and to profit by the instruction given them. The county health departments have had the midwives report monthly to have their obstetrical bags inspected, to receive fresh supplies, and to report concerning the cases which they attended within the month. At the end of the fiscal year there remained only 11 counties in which the midwives had not been taught. All the nurses included midwife teaching in their work, and the midwife supervisor divided her time between work with the midwives and general maternity and infancy activities. In one county an effort was made to ascertain the number of births reported by midwives, the number of stillbirths, and other information relating to the midwife situation.

Exhibits dealing with proper diet for infants and young children were prepared for nine county fairs. Posters and sample layettes were loaned to health services, clubs, and colleges.

Lectures and talks by staff members—130, to 4,622 persons.

Literature distributed—more than 28,000 pamphlets, leaflets, etc. A library for mothers and nurses was prepared and kept in circulation.

SOUTH DAKOTA

Administrative agency:

State board of health, division of child hygiene.

Staff:

Director (physician), 2 staff nurses, 5 county nurses (part time), 1 clerk, 1 lecturer (part time).

Activities:

Child-health conferences—292, at which 4,604 examinations were made. Fifty-two conferences were return visits to communities in which conferences had been held the previous year. Reports were received of the correction of defects for 623 children. At each conference an opportunity for a prenatal examination was given to mothers. Prospective mothers were in attendance at 64, and 107 examinations were made.

Mothers' classes—5 were begun in June with 67 women attending. An outline of a standard book on prenatal care was made, and mimeographed copies were furnished to the class members for use as a text-book. The last two lessons consisted of demonstrations on preparation for confinement, and care of the newborn baby. A small engraved certificate was given to each mother who attended the entire series of lessons.

Home demonstrations—34 within the first half year (number during remainder of year not reported). These included demonstrations of preparation for confinement, infant and child care, etc.

A state-wide survey of maternity homes was in progress. It is believed that the law enacted in 1925 providing for the licensing and inspection of maternity homes by the State board of health will result in a raising of the standards in such institutions.

Each birth report received was verified and corrected under the supervision of the director. A birth certificate and suitable literature were sent to each mother as soon as the reports had been verified.

A study of 7,514 birth reports to ascertain the type of attendant at confinement showed that 6,574 births had been attended by physicians, 180 by midwives, 323 by some other attendant; and that 437 had no attendant.

Tabulations were made of the causes of maternal deaths in 1923; causes of deaths during first, second, and third weeks of life; causes of deaths during first, second, third, and fourth years of life; causes of stillbirths and premature births.

Lectures and talks by staff members—142 illustrated with films and slides, 24 not illustrated.

Literature distributed—more than 8,000 bulletins by mail and others at State and county fair exhibits.

Prenatal letters—sent to 1,248 addresses.

Exhibits were prepared and used at the State fair and six county fairs.

TENNESSEE

Administrative agency:

Department of public health, division of maternal and infant hygiene.

Staff:

Director (physician), 2 staff nurses, 26 county nurses (22 part time), 2 clerks.

Activities:

Child-health conferences—172, at which 2,457 examinations were made. The county nurses organized conferences and assisted in them.

Midwives' classes—31 class groups, with an enrollment of 513 negro women, of whom 232 completed the course. These numbers include the classes organized and taught by the negro physician detailed to the State by the Federal Children's Bureau (see p. 69); the county nurses assisted in the work. Ampoules of silver-nitrate solution were distributed free to the midwives. An increased interest on the part of the midwives in the welfare of the mothers and babies attended by them was evident. One midwife arranged to have 18 of her patients bring their babies to a child-health conference.

Little mothers' classes—88.

Demonstrations—69 within one half year, given by county nurses to groups of mothers, usually on some phase of maternal and child care.

Home visits—13,312, of which 2,410 were to prenatal cases, 2,156 to post-partum cases, 5,888 to infants, and 2,858 to preschool children.

New permanent child-health centers established—16.

The greater part of the maternity and infancy work has been done on the county unit plan, 26 counties being supplied with a public-health nurse and the cost of the service in most counties being borne jointly by maternity and infancy and local funds.

The isolation of much of the population in certain regions (as in some mountainous parts of the State) has made the work difficult almost in proportion as the need of it has been extreme. Prejudice against preventive measures for smallpox and diphtheria, disregard of quarantine precautions, and lack of medical treatment greatly increase the death and disease rates due to the frequent epidemics.

Inasmuch as the State is not in the birth-registration area, a survey and campaign to stimulate interest in birth registration was undertaken. Work was done in five counties, in three of which it had been completed by the end of the fiscal year. Local committees gave effective cooperation and help. The county nurses also did general educational work on the need and value of birth registration. The interest aroused in one county was such that a local bank offered to deposit \$1 to the credit of each baby whose birth certificate was filed with the health department.

Lectures and talks by staff members—53.

Literature distributed—more than 13,000 pamphlets relating to maternal and child care, instructions to midwives (see p. 69), and prenatal letters.

TEXAS

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (physician), 4 staff nurses, 25 county nurses (part time), 5 nurse assistants, 1 inspector of maternity and infant homes, 8 clerks (1 part time), 1 illustrator.

Activities:

Child-health conferences—836, at which 8,320 examinations were made.

The correction of 184 defects was reported for the second half year.

Prenatal conferences—more than 3,000 mothers were reached by individual and group conferences.

Midwives' classes—36, with an enrollment of 605 women, of whom 234 completed the course. The midwife survey previously reported as in progress was completed, and classes were undertaken in accordance with the findings. The Negro and Mexican midwives were very eager to learn, but the foreign-born white midwives were reached with more difficulty. Silver-nitrate solution was supplied free to all of the midwives.

Mothers' classes—164 class groups with a total attendance of 2,274 women.

Little mothers' classes—104 class groups.

Dental clinics—102, with 552 children receiving care.

Nutrition classes—61 class groups.

Demonstrations and exhibits—223, at fairs and various group meetings. A literature exhibit was prepared for use at parent-teacher association summer institutes at State normal schools.

Home demonstrations—855, on preparation for confinement, the preparing of food for infants, and other subjects related to prenatal and child care.

Maternity homes—78 inspections made.

Infant homes—213 inspections made. As a result of the efforts of the inspector the conditions in both infant and maternity homes have greatly improved.

Campaigns—80, for improved milk supplies and more complete birth registration.

Surveys—13, of midwives and general sanitary conditions.

New permanent child-health centers established—144, at which county nurses held monthly conferences. A local committee was responsible for assisting the nurse.

New permanent prenatal center established—1.

Lectures and talks by staff members—145 by office staff and 807 by field nurses.

Literature distributed—41,180 pamphlets on infant care (within last half of the year).

Prenatal letters distributed—24,952 in the last half year.

A correspondence course in public-health nursing was conducted by the superintendent of nurses, and a circulating library was maintained for the use of nurses in the field.

When a birth was registered a letter was sent to the mother offering her literature. By this method a contact was made with many mothers who could be given help and instruction.

Generous cooperation was given by more than 700 physicians and more than 2,000 lay workers. Efficient lay cooperation was available through the organization of an advisory council composed of one or two physicians, representatives from each of the state-wide women's organizations such as the nurses' associations, the affiliated women's clubs, and others. Representatives of the bureau of child hygiene attended the State meeting of each of these bodies and planned with them the work to be undertaken on behalf of the bureau's maternity and infancy program for the year. The principle was carried out similarly with the district and county organizations, and finally the community ones, so that all had definite places on the "county nursing committee" and worked for the accomplishment of one or more items on the program. The men's fraternal and professional organizations were approached later, and likewise gave notable assistance. The schools were good sources for efficient lay workers, the teachers having proved very helpful.

UTAH

Administrative agency:

State board of health, bureau of child hygiene.

Staff:

Director (physician), 1 physician (part time), 1 staff nurse, 3 county nurses (part time), 2 clerks.

Activities:

Child-health conferences—234, at which 7,972 examinations were made.

Prenatal conferences—54, held in conjunction with child-health conferences, with an attendance of 130 expectant mothers who were given instruction on prenatal care.

Mothers' classes—55 sessions with a total attendance of 1,112 women during the last half of the year. The number attending in the first half year was not reported.

Little mothers' classes—4.

Home demonstrations—123, on layettes, infant care, the preparation of infant and child diets, etc.

Home visits—2,296.

Maternity homes inspected—7.

Infant home inspected—1.

New permanent child-health centers established—50.

Tabulations were made of the results of the 11,562 examinations made at 386 child-health conferences held in 25 counties by the State staff or by local forces. These tables showed such facts as the number of children coming to the conferences for the first time, the number of children returning for examination, and the number and kind of defects found. Correction was recorded of 1,409 of the 14,681 defects noted.

Surveys were made in two counties to ascertain sanitary conditions, health resources, social agencies, etc., of each town in the county. This information was used in formulating plans of work in these two counties.

Lectures and talks by staff members—241.

Literature distributed—13,594 Federal and State bulletins.

Charts, posters, slides, and other exhibit material have been prepared for fairs and meetings of various organizations. New graphs have been made showing the trend of infant mortality and morbidity rates in the State. These have been exhibited in the State offices and at other places where they might be of interest to the public.

Volunteer assistance was given by 75 physicians, 20 dentists, 28 nurses, and 722 lay workers. In so large a State the best method of work for the comparatively small staff seemed to be to have one of the staff nurses go into a

community and, after noting general health conditions and other relevant facts, confer with the various clubs, churches, and other organizations, to interest them in the establishment of a health center. The next step was to have them appoint a temporary committee to prepare for the later arrival of a member of the medical profession, or a nurse, to give a demonstration of child-health work. These demonstrations were given good publicity in advance, and the attendance was excellent. The visitors then were asked whether the examinations of their children were of value, and whether they cared to make the organization permanent. The term permanent organization serves merely to indicate that some one is responsible for keeping the work going in the long intervals which must elapse between the visits of members of the State staff. The local physicians were expected to conduct the conferences and were requested to report the number of children examined, types of defects found, etc. If possible the conferences were held in public-school buildings. The establishment of the 50 new permanent child-health centers was a result of this work.

VERMONT

Vermont accepted the benefits of the act in the latter part of February, 1925. The sum accepted was the unmatched allotment of \$5,000. Owing to lateness in starting work and the difficulty in obtaining the desired personnel for the administrative staff the only work done within the fiscal year under review was to purchase supplies, except that some statistical studies of maternal and infant mortality were made for use in connection with the planning of the work.

VIRGINIA

Administrative agency:

State board of health, bureau of child welfare.

Staff:

Director (physician), 1 staff physician, 3 staff nurses (1 part time), 47 county and community nurses (part time), 1 midwife supervisor (nurse), director of mothers' correspondence course (nurse), motion-picture operator, 6 clerks, dentists as needed for special work.

Activities:

Child-health conferences—872, at which 16,744 examinations were made. In counties having a maternity and infancy nurse the county nurses assisted at more than 1,500 child-health conferences and 707 toxin-antitoxin clinics.

Home visits—67,175, of which 5,756 were to prenatal cases, 8,085 to post-partum cases, 36,900 to infants, and 16,434 to preschool children.

Prenatal conferences—89, with an attendance of 522, held in six counties having maternity and infancy nurses.

Mothers' classes—27, with an attendance of 329.

Dental clinics—held in 28 counties and 2 cities the first half of the year, with 2,346 dental examinations made. In the last half of the year 10 clinics were held and 324 examinations made.

Midwives' classes—159 sessions, with a total attendance of 1,171, conducted by the county and community nurses and the State supervisor of midwives. A printed course of instruction (consisting of eight lessons) was furnished to the nurses that the class work might be uniform throughout the State. In the classes the necessity of cleanliness was emphasized, also the proper use of eye drops, the necessity of reporting of births, the danger of making internal examinations and giving drugs, and the importance of being able to recognize dangerous symptoms so that the midwife could call a physician when necessary. The nurses reported that the unfit midwives were being eliminated, their places being taken by younger women anxious to receive all the training possible and willing to put the instructions into practice.

Maternity homes inspected—7 (the total number in the State). Information was obtained concerning equipment of the homes, method of handling cases, and the kind of care given mother and baby.

New permanent child-health centers established—7.

New permanent prenatal clinics established—2.

A great part of the work was done by nurses employed jointly by the county or community and the State bureau. The State bureau contributed \$500 toward the salary and expense of the nurse in return for which she devoted one-fourth of her time to maternity and infancy work. Generally the amount of time greatly exceeded this, sometimes as much as half time being given to maternity and infancy work. In all communities where public-health nurses were employed there was a tendency to work out of the school-child group back into the preschool-age group.

Institutes on child training were held for parents in five towns, each institute lasting four or five days. Since the establishment of correct health habits is affected by the child's mental, social, and moral training, the object of these institutes was to discuss with parents the whole subject of child training and, if possible, to outline standards and policies for a child-training program.

To meet to some extent the need of trained nursing care in the home for minor illnesses and for persons unable to afford a trained nurse, an effort was made to interest hospitals in opening schools for training "nursing attendants." One such school was opened, the period of training to be one year.

Plans were also made for a short course to be held at the University of Virginia during the summer to train physicians' helpers. The course as planned consisted of 15 lectures and demonstrations on maternity care, home nursing, personal hygiene, and community health.

Lectures and talks by staff members—215.

Literature distributed—more than 218,000 pamphlets, leaflets, etc.

Mothers' correspondence course—255 women completed the course, and the number still on the list July 1 was 746. The accomplishments of the second year's work have been encouraging. More than twice as many students (1,141) enrolled as had enrolled the previous year.

The motion-picture outfit visited 28 counties, 1 city, 30 colleges and schools, and several meetings of organizations. A total of 333 showings of various health films were given to audiences totaling more than 71,000 persons.

WASHINGTON

Administrative agency:

Department of health, division of child hygiene.

Staff:

Director (physician), 1 staff nurse, 1 county nurse, 3 clerks (1 part time), 1 publicity worker (part time).

Activities:

Child-health conferences—43 in rural communities, at which 3,799 examinations were made. The division cooperated with one of the department stores in Seattle in holding a weekly child-health conference. The number of examinations at these conferences was about 70 each week. A series of lectures on prenatal and child care was given in connection with the conferences.

Prenatal conferences—6, with an attendance of 250.

Mothers' classes—31 class sessions, with a total attendance of 1,125.

Dental conferences—4. Examinations were made by dentists who volunteered their services.

Some slight improvements appeared in infant feeding in the rural communities. The physical examinations indicated the widespread neglect of vaccination and of toxin-antitoxin administration, the prevalence of rickets, adenoids, tonsil enlargement and infections, of goiter in certain localities, and of dental caries. However, definite improvement in correction of dental caries was noted.

An attempt was made in three counties to develop mother and baby schools, although this was difficult since the work depended upon the time which local physicians could give to it. Demonstrations concerning infant care, confinement needs, and proper nutrition formed part of the course.

Group demonstrations—17, on various phases of child care, in connection with the mother and baby health schools.

New child-health centers established—3.

The director of the division aided in conducting a series of pediatric programs before the county medical societies, arranged by the infant-welfare committee of the State medical association.

Permanent organizations to serve as child-hygiene committees were being formed in all counties. These included county health officers, county nurses

where available, local physicians, presidents of parent-teacher associations, county federations of women's clubs, and other lay workers.

An article was prepared every week to syndicate for 197 newspapers, and articles were prepared every month for several magazines.

Correspondence course—257 women were registered at the close of the year.

Lectures and talks by staff members—120.

Literature distributed—more than 8,500 bulletins distributed.

Exhibits were provided for two communities, also for nurses' institute, various conventions of women's organizations, and county fairs. A special diphtheria-prevention exhibit was prepared.

WEST VIRGINIA

Administrative agency:

Department of health, division of child hygiene and public-health nursing.

Staff:

Director (nurse), 2 staff nurses, 5 county nurses, 3 clerks, 1 vital-statistics field worker.

Activities:

Child-health conferences—276, at which 6,011 examinations were made.

Prenatal conferences—24, with an attendance of 59.

Mothers' classes—260 sessions, with a total attendance of 5,191.

Little mothers' classes—228 sessions, with a total attendance of 3,239.

Group demonstrations—24, on making and sterilizing an obstetrical bundle, bathing the baby, preparing a feeding formula, arranging the confinement bed, etc.

Home visits—8,479.

Correspondence course—to a registry of 4,747 mothers. Physicians from all parts of the State registered their prenatal cases for this course.

New permanent child-health centers established—12.

New permanent prenatal clinic established—1.

Lectures and talks by staff members—123.

As a result of the work of the State division local communities were initiating their own maternity and infancy work. Many communities conducted preschool child-health conferences; and in five counties and one city the local health workers conducted correspondence courses for mothers, the material being furnished by the child-hygiene division.

The films "Well Born" and "Our Children" were used in a number of communities; also loaned to county health units and other organizations. Posters and slides were also used.

Articles were prepared monthly for 104 newspapers and weekly for 38 dailies, and one radio talk was prepared.

Surveys of the birth registration, death rate, deliveries, infant feeding, and general sanitation were made in several counties, and the health conditions of the preschool children were studied in one county.

A three-week course in maternal and infant hygiene was given at each of the three State negro normal schools in July and August to about 100 teachers. Weekly lectures were given to the entire student body of one school. Members of the division staff gave to nurses in hospital training schools seven courses on public-health nursing, consisting of lectures and demonstrations designed to give the pupil nurses some knowledge of the preparation for public health nursing work and of its opportunities. Maternal, infant, and preschool-child work were taken up in detail. These short general courses were given in the hope that some of the pupil nurses would enter upon public-health nursing.

An outline was prepared for the use of communities in organizing child-health conferences. The reasons for such a conference were stated, with mention of the defects most frequently found and brief explanation of the bad results which defects left uncorrected have upon a child's future physical condition. Suggestions were given on the duties and responsibilities of the registration committee and other committees. Many copies of this were distributed by nurses among the persons likely to be interested and capable of giving efficient help in preparation for a conference and its successful conduct. Women who had had experience in teaching and in business were sought as aids in the clerical side of the work and as special assistants. An effort was made to form a representative public-health association in every com-

munity where there was a public-health nurse. Special effort was made during the summer to have children who would enter school for the first time in the approaching fall examined and defects corrected.

Forms for a survey questionnaire, application blanks, permits, pledge card, rules, and information for midwives were prepared to carry out the requirements of a law requiring registration and licensing of all persons practicing midwifery in the State, which the legislature passed in May, 1925.

WISCONSIN

Administrative agency:

State board of health, bureau of child welfare and public-health nursing.

Staff:

Director (nurse), 4 physicians (2 part time), 5 nurses (1 part time), 8 clerks (1 part time), 1 organizer of infant-hygiene classes.

Activities:

Child-health conferences—383, at which 11,708 examinations were made.
Prenatal conferences—222.

Little mothers' classes—211, in which 4,240 girls were enrolled.

Through the work of the organizer of infant-hygiene classes the little mothers' classes have become a recognized course in infant hygiene in the schools of the State. This has developed through the cooperation of the State department of public instruction with the bureau of child welfare and public-health nursing, which has made it mandatory for teachers to include a minimum of 10 lessons on infant hygiene in the seventh and eighth grades as rapidly as the teachers become prepared for the work. The organizer of infant-hygiene classes gave demonstration lessons to teachers in State and county normal schools and other groups of teachers, instructing approximately 2,545 student teachers in 25 training schools. An outline for the 10-hour instruction in infant hygiene was prepared for the use of teachers. During the winter months the staff nurses assisted in the teaching of infant-hygiene classes in the schools. The larger State normal schools and county normal schools have included in their curriculum the instruction for teaching such classes.

Infant homes inspected—7.

New permanent child-health centers established—3.

New permanent prenatal centers established—3.

Home visits—3,165 within the last half year, of which 1,752 were made to infants, 1,276 to preschool children, and 137 to expectant mothers.

Lectures and talks by staff members—256.

Literature distributed—84,890 pamphlets, 18,625 birth-card letters.

Prenatal letters—9,475 to 2,119 expectant mothers. A sample set of prenatal letters with blanks for reporting names and addresses of expectant mothers was sent to all physicians in the State who had reported two or more births in 1924. There were 957 names sent in by 138 physicians.

Exhibit material—sets of posters were loaned 309 times, films and slides 38 times, and sample layettes 13 times.

Volunteer assistance was given by approximately 20 nurses and 18 individual lay workers, in addition to many women's clubs, parent-teacher associations, and other organizations.

WYOMING

Administrative agency:

Department of public health, division of maternal and infant welfare and child hygiene.

Staff:

Director (nurse), 4 county nurses (1 part time), 1 clerk.

Activities:

Child-health and prenatal conferences—113, at which 2,708 examinations of children were made. Physicians from near-by towns were employed for 8 rural conferences. Lectures on prenatal and infant care were given at the conferences, 1,500 mothers being reached within the first half of the year (the number for the last half not being reported). The mothers were interested in knowing the exact condition of their children and in having defects corrected. However, the child in the rural section may have to be taken a long distance to a dentist. Several counties have no hospitals, many local physicians have no facilities for the simplest surgery, and only four cities in the State

have eye, ear, nose, and throat specialists. Although the data obtained were very incomplete, encouraging indirect reports were received of corrections made.

Mothers' classes—195 sessions, with a total attendance of 1,343. The course consisted of six classes and demonstrations, four talks on prenatal care, and two on the care of the newborn child, emphasizing breast feeding. In each community in which child-health conferences were held the State workers tried to interest some group in forming a study class on child care, advising them to consult their local physicians and dentists concerning programs. Pamphlets and an outline for the course were furnished by the State bureau.

A continuous mothers' health conference was held at the State fair.

Home visits—7,158, including 1,046 to prenatal cases and 4,759 to infants and preschool children. All the field nurses except one worked in coal or oil camps or among industrial groups. They urged the women to place themselves under the care of a physician early in pregnancy. In some communities far from physicians they found that the mothers visited their physicians early and kept in touch with them by letter or other means of communication.

New permanent child-health centers established—14.

Lectures and talks by staff members—90.

Literature distributed—many Federal bulletins. Copies of pamphlets on prenatal care and the care of children were given to each mother at child-health conferences, and leaflets on breast feeding and the care of the baby were sent to the mother of each baby whose birth was registered. Literature was also supplied to mothers' circles, libraries, physicians, and hospital officials who requested pamphlets for distribution to their obstetrical patients.

Volunteer assistance was given by 75 physicians, 30 dentists, 57 nurses, and 205 lay workers.

FEDERAL ADMINISTRATION

FEDERAL STAFF

For the administration of the maternity and infancy act the United States Children's Bureau added to its already existing six major divisions a division of maternity and infant hygiene, to consist of a director and an associate director, a consulting public-health nurse, an accountant, a secretary, and a stenographer.⁹ In 1924 a negro physician was employed for investigation and educational work among negro midwives. The acting medical director or other staff physicians have visited the States for conferences with directors and observation of field work; also for conferences with physicians, public-health nurses, and groups of interested persons not belonging to the medical or nursing profession.

For the second half of the year two nurses were added to the staff for special work in cooperation with the States.

The consulting public-health nurse visited the State supervisors of nurses in the States in an advisory capacity, observing field work in rural districts and bringing to each State the experience of the others. She spent periods of time in some States helping to initiate maternity and infancy demonstration work and gave addresses at institutes for nurses.

The accountant has visited all the States accepting Federal funds and has audited the accounts of all cooperating State agencies.

CONFERENCE OF STATE DIRECTORS

A conference of directors of State bureaus administering the Federal maternity and infancy act was held at the Children's Bureau in Washington, October 8 to 10, 1924. Representatives were present from 36 cooperating States, and from 1 State not cooperating. The entire time was devoted to discussion of ways and means of improving and extending the work. The following topics were discussed: Prenatal care, confinement care in rural areas, methods of forming permanent child-health centers, nutrition work, dental care, stimulation of interest in counties which have not previously had a public-health program, the utilization of lay workers and lay organizations, reduction of the infant death rate, methods of obtaining the services of specialists for rural communities, specialized and generalized work for nurses, methods of obtaining cooperation from local physicians and dentists, methods of transferring responsibility for child-health conferences over to their respective communities, the contents of a well-rounded program of maternal and infant hygiene work, methods of obtaining correction of defects noted at conferences in rural communities, the use of local newspapers in maternity and infancy work, mothers' classes, maternity homes.

⁹ See 42 Stat. 135, secs. 3-6 (Appendix A, pp. 73-75 of this report).

The following reports of committees were submitted to the conference and accepted by it:

1. Report of committee on achievements under the Sheppard-Towner Act:

Wide diversity in the development of child hygiene in the States and varying local conditions make it impossible to judge the work of the States by the same tests. It is essential that the program be laid out along lines that are known to have brought results and that it be scientifically carried out; that the cooperation of all groups who can contribute to the success of the program be enlisted.

Object: To make available to mothers and fathers information as to scientific care of mothers and babies. (1) Extensive work: To reach the whole State with general information. (2) Intensive work: Demonstrations of prenatal, infant, and preschool conferences, county nurse activities; having county or local communities assume work which has been initiated.

Results: Measured by the extent of the program under way, how much of the State has been covered with extensive work, how much intensive work has been undertaken? How much permanent work is under way?

The extent of information available on which judgment as to effectiveness of work can be made: (1) Reduction of infant and maternal mortality rates; (2) reduction of morbidity; (3) evidence of increased physical fitness.

2. Report of committee on cooperation with the medical profession:

The committee requests that it may remain a standing committee to study further ways and means of engaging the interest and cooperation of the medical profession. It is the sense of this committee that the work of the various States under Federal maternity and infancy funds has been established with full recognition of the importance of this cooperation and has been carried on with ethical procedure; that the cooperation and participation of physicians in the work is constantly on the increase and that, therefore, while this committee has at this time no resolution to present, it takes occasion to urge redoubling of effort in this direction so that we may secure a better and more sympathetic understanding of maternity and infancy work as carried on under the Federal provision.

Upon motion of one of the directors it was voted that the Children's Bureau be asked to work out standards of prenatal care for the use of physicians and standards for physicians conducting conferences in child-health centers.

It was decided by the conference that a committee of directors should be appointed to take charge, with the cooperation of the Federal office, of detailed plans for the next annual conference of directors.

RESEARCH AND EDUCATIONAL WORK

Standards for physicians conducting conferences in child-health centers.

In pursuance of the request made by the conference of directors of State bureaus that the Children's Bureau formulate and make available a statement of standards for the conducting of child-health conferences the standing advisory committee of pediatricists appointed for the Children's Bureau by the American Pediatric Society, the pediatric section of the American Medical Association, and the American Child Health Association cooperated with the director of the child-hygiene division of the bureau in the preparation of such an outline of standards. Assistance was also given by professors of pediatrics in two universities and the director of one

of the State bureaus. The pamphlet contains sample forms for history taking and for the recording of six complete physical examinations; and these forms can be purchased in quantities from the Government Printing Office (see pp. 80, 81). The use of these forms will make conclusions drawn from comparison of facts ascertained in one county, State, or district with those ascertained in another proportionately more valuable.

Standards of prenatal care.

At the conference of State directors it was likewise suggested that a committee from various parts of the country be appointed to draw up standards of prenatal care for the use of physicians at clinics and also in private work. The Children's Bureau accepted the suggestion and requested a prominent obstetrician to organize such a committee. The work of this committee of 11 obstetricians has been embodied in a concise, simple, workable outline of the points essential for inclusion in the standards of prenatal care. Although the committee appreciated that no group of physicians would agree without qualifications on any set of standards such as was attempted, they felt that the pamphlet, as approved in its final form by each member of the committee, covers the essential points in prenatal care which all physicians should be called upon to give their patients. A sample outline for recording obstetrical histories is included, and copies of this form can be purchased in quantities from the Government Printing Office (see pp. 80, 81).

Community control of rickets.

An attempt is being made by the child-hygiene division of the Children's Bureau, in cooperation with the pediatric department of Yale University School of Medicine and the New Haven Department of Health, to demonstrate that rickets can be eradicated from a community. The demonstration district selected consists of three wards (population about 13,000) in New Haven, Conn. At the close of the fiscal year under review, 21 months had been devoted to this study (which was to be continued for another year). Within this period 480 of the 568 infants born in the demonstration district have been examined. Although certain of the cases were closed because the families moved away, or were not cooperative, or for other reasons, 352 cases were actively carried. A total of 3,229 examinations have been made, and 3,069 X-ray examinations. A partial analysis of the records kept on the group of infants born within the year ending August 15, 1924, indicates a very mild degree of rickets in 96 per cent of these babies when clinical and X-ray diagnoses are both considered. On X-ray examination alone 89 per cent of the infants have shown a slight degree of rickets; on clinical examination alone, 83 per cent. The X-ray manifestations of rickets appeared in 90 per cent of the children before 6 months of age, in 65 per cent before 4 months of age, in 12 per cent before 2 months of age, and in 53 per cent during the third and fourth months. Only 4.5 per cent of the group who cooperated in every respect have shown more than this exceedingly mild degree of rickets. Approximately 30 per cent, however, of the control group (552 children living in the district

and 213 infants living outside the district) have shown moderate or marked rickets.

By the use of sunlight and cod-liver oil the mild form of rickets can apparently be controlled and deformities prevented. Treatment for its control must be begun before the second month of life. Analysis of the X rays taken on the group of infants who were given cod-liver oil and sun regularly shows that the same degree of control of the disease had been obtained by this group at 13 months of age as had been reached spontaneously by the control group at 25 months of age. Analysis of the clinical manifestations of rickets for these same two groups, however, shows not more than 4 per cent with moderate deformities in the treated group in contrast to 38 per cent with moderate or marked deformities in the untreated group. If rickets does not develop beyond this first degree it has no apparent effect on the infant's general health.

Rickets is intimately associated with growth, and the appearance of the rachitic process during the first four months of life (when most active growth is taking place) is not extraordinary. The rate of growth of the infant undoubtedly influences the time of appearance of the disease, premature infants (who grow very rapidly) being notoriously rachitic from the earliest month of life. Large rapidly growing breast-fed infants almost uniformly show definite evidences of rickets in the early months. The investigations show a slight degree of early rickets to be well-nigh universal in climates of the North Temperate Zone; and without the use of preventive measures rickets will advance to a moderate or marked degree of severity in approximately 30 per cent of the children, with resulting deformities and lowered resistance to infection.

An investigation of the normal growth and development of infants from birth to 2 years is being made with the same group of children. A correlation of physical growth with general health and a study of the actual growth of bone as shown by the X-ray photographs will be included in the report.¹⁰

Rickets in children in the District of Columbia.

A study has been made for the Children's Bureau of rickets in the children in the District of Columbia. The report deals with nutrition and X-ray studies, and with clinical findings. Some statistical data will be included.

Stillbirths and neonatal deaths.

An investigation of stillbirths and neonatal deaths was begun in 1923 (at the University of Minnesota) for the maternity and infancy division of the Children's Bureau. The examinations deal with deaths which occurred at various times during gestation as well as shortly after birth. It appears from the study that the same factors which cause death before birth are mainly responsible for deaths occurring within the first few days of life. Toxemias of pregnancy, birth injuries, and infections are the main causes of neonatal deaths, infection being conspicuous after the fourth day of life.

¹⁰ A preliminary report of the first 18 months' work was presented at the annual meeting of the American Medical Association and published in the journal of this association. Reprints may be obtained from the U. S. Children's Bureau (see p. 80).

Prematurity, alone or associated with other causes, is an especially noticeable reason for neonatal deaths. It is evident that better care during the prenatal period, confinement, and after birth, is necessary in order to diminish the deaths from such preventable causes.

Neonatal and maternal mortality in Tennessee in relation to the attendant at birth.

At the request of the State department of health in Tennessee the Children's Bureau has made through its statistical division a study of birth and death certificates in six counties of the State to ascertain the infant and maternal mortality rates as affected by the type of attendant at birth. "Loss rates" as well as neonatal rates were obtained, since the stillbirth rate as well as the neonatal and the maternal mortality rate may be influenced by the care a mother receives before the birth of the child and at its birth. These loss rates were computed on all reported stillbirths and deaths under 1 month of age. For the six counties the total loss rate per 1,000 births was 77.2; for births attended by physicians the rate was 72.8; attended by midwives, 82.8 (by white midwives, 51.5; by negro midwives, 106.5). Because the more incomplete registration of stillbirths and miscarriages than of live births would necessarily influence the rate for all losses, the mortality rate for infants dying under 1 month of age is probably more significant than the figures showing total losses. The neonatal death rate for the birth-registration area in 1922 was 39.7 per 1,000 live births. For the six counties surveyed in Tennessee the rate was 38.5. For infants attended at birth by physicians the rate was 34; for infants attended at birth by midwives the rate was 48.7 (attended by white midwives, 35; by negro midwives, 60.1).

Infant and maternal morbidity and mortality in Idaho.

At the request of the Idaho Department of Public Welfare the Children's Bureau made, through its statistical division, an analysis of State statistics for 1924 in order to test birth registration and to measure the extent of infant and maternal mortality in Idaho. This State has not yet been admitted to the birth-registration area, and it was found that although there was excellent birth registration in many counties, laxity in the enforcement of the registration law in other counties gave the State as a whole a lower percentage of registration than that required for admission to the area. The infant mortality rate as based on State statistics was 56, indicating that Idaho may be accorded the same favorable position in regard to infant mortality as that generally shown for States of the Pacific Northwest. When maternal mortality was considered, however, the position was found to be less advantageous, as high maternal losses were shown for a number of the counties.

The effect of posture on physical fitness.

A study of the effect of posture training on the physical fitness of preschool and school children has been conducted during the past two years for the Children's Bureau. Standards of excellent, good, fair, and poor posture for different types of children were established. The report will discuss the findings in detail and treat of methods of teaching posture to children. Inasmuch as little scien-

tific work has previously been done in this field, this work should prove of immediate practical value.

Care for crippled children.

The Children's Bureau has undertaken a survey of the provision for crippled children, with especial attention to methods of locating these children and to the nature and extent of preventive measures in their behalf, in eight States representing different sections of the country and including both rural and densely populated regions. Examination will also be made of the laws for the benefit of crippled children in these States and the methods of their administration; the public provision for clinic, hospital, and convalescent care; and noteworthy private institutions and agencies for crippled children.

Milk, the indispensable food for children.

A revision has been made of the Children's Bureau publication entitled "Milk, the Indispensable Food for Children." This points out that milk is essential not only for the normal, healthy development of infants but also for children of all ages, for pregnant and nursing mothers, and for the sick. A table showing the vitamin content of various forms of milk, compiled with the assistance of physicians and dietitians who have given especial attention to milk, has been added in connection with the revision, and the list of references has been brought fully up to date.

Nursing-service demonstration in Utah.

At the request of the Utah State Board of Health, the Children's Bureau began a demonstration of a county maternity and infancy nursing service in Piute, Garfield, and Kane Counties, in the southern part of Utah, in March, 1925.¹¹ The purpose was to show the value of public-health work and the desirability of establishing permanent health units. The program included mothers' classes dealing with prenatal care, postpartum care, care of infants and small children, and the prevention of communicable disease; cooperation in the child-health and prenatal conferences held under the State bureau of child hygiene and home follow-up work in connection with them; toxin-antitoxin clinics; the introduction of iodized salt for the prevention of goiter; maintenance of a health center and rest room at the local county fair. Emphasis was laid upon the need of fresh fruits and vegetables in the daily diet, bringing about the raising of larger and more diversified family truck gardens and in some instances the canning of more extensive supplies for winter use.

Educational work among midwives in New Mexico.

At the request of the New Mexico Board of Public Welfare the Children's Bureau gave assistance in the work of the bureau of public health in New Mexico by means of an educational campaign among midwives, beginning in February, 1925.¹² The counties selected for the organization of classes and for work to stimulate the more complete registration of births were Dona Ana, Valencia, McKinley, and Eddy. The population to be dealt with was very largely of Mexican origin. The larger mining camps were selected as centers

¹¹ The demonstration was concluded Nov. 15, 1925.

¹² This demonstration continued after the close of the fiscal year under review.

for classes, together with other villages or towns in which it was possible to assemble the midwives. Some women walked or drove many miles to attend classes, but it was also found necessary to give much instruction to individual midwives in their own homes, or occasionally even in the homes of their patients at the time of delivery. The county health officers cooperated especially in locating the midwives, in explaining to them the State law regarding practice of midwifery, the midwives' responsibility, the cooperation expected from them, and the help obtainable from the State department. Local physicians assisted by giving talks to the classes, as a part of the course of instruction. Certificates were presented to women who completed courses, and the county health officer planned to exercise as much continuing supervision over these midwives as would be possible.

Educational work among midwives in Tennessee and Georgia.

The investigation and educational campaign among negro midwives in which the negro physician on the staff of the Children's Bureau has cooperated with the Tennessee Department of Public Health, undertaken the previous year, was continued. These midwives were found to be more numerous than had been supposed. In the first two counties in which work was undertaken, where the negro population is proportionately less than in many others, 200 negro midwives were discovered to be practicing, although only 710 from the whole State had been registered with the bureau of vital statistics. Classes were organized, and many individuals were also visited and interviewed. A 12-page mimeographed syllabus of instructions for midwives was prepared and given to each midwife who could be reached with it. Similar work was also done in Georgia in cooperation with the State board of health. Objectives were the instilling of a willingness to comply with the law and an understanding of its requirements, the eradication of superstitious practices, emphasis upon cleanliness in connection with deliveries, and instruction in proper methods of practice. The Negro Medical Association of Georgia gave consideration to the problem of the negro midwife and cooperated most sympathetically; and assisted by holding prenatal clinics for the benefit of the midwives' patients.

Prenatal letters.

A series of prenatal letters was prepared for the use of State bureaus which desire to have copies printed or mimeographed with the addresses of the respective bureaus for distribution within these States.

News-letters.

News-letters were sent at intervals to the State bureaus to convey to them such items of interest as were received from time to time at the Federal office. Foreign news was included, also mention of recent publications, news from the State bureaus, and personal items of interest in regard to members of their staffs.

Publications.

A number of Children's Bureau publications bear directly upon the hygiene of mothers, infants, and preschool children. There

is a constant demand for the series of bulletins issued for mothers. During the fiscal year under review 167,056 copies of Prenatal Care were distributed, 235,618 copies of Infant Care, 145,682 copies of Child Care, and 31,320 copies of Child Management (in the last three months of the year).¹³ These figures include distribution in response to requests from individuals and organizations, as well as from State bureaus. At no time during the year, however, has the Children's Bureau been able to meet the demands for its publications. The reduction in the size of editions (as compared with those of 1923-24) and consequent curtailment of distribution, were due to the great increase in cost of printing and to the fact that the allotment to the Children's Bureau for printing was only slightly larger in 1925 than in previous years. (An increase of \$7,500 in the bureau's printing allotment for the year 1926 has been made by Congress for the specific purpose of increasing the supply of these popular bulletins.) A number of States have purchased copies of these bulletins directly from the Government Printing Office, in addition to quotas supplied free;¹⁴ and others have reprinted them wholly or in part.

The bulletin entitled "A Study of Maternity Homes in Pennsylvania and Minnesota" was completed during the fiscal year under review and is now being printed.

Folders were distributed as follows: Minimum Standards of Prenatal Care (revised), 29,397 copies; Why Drink Milk? 33,641 copies.

Dodgers were distributed as follows: Books and Pamphlets on Child Care, 18,702 copies; Is Your Child's Birth Recorded, 27,833 copies; Breast Feeding, 28,642 copies; Bottle Feeding, 54,604 copies; Feeding the Child, 41,447 copies; The Care of the Baby, 45,202 copies; What Do Growing Children Need? 69,437 copies.

For a more detailed list of these publications and other bulletins, charts, and reprints issued by the Children's Bureau see Appendix D, pages 80-81.

Motion pictures, lantern slides, and exhibit material.¹⁵

The Children's Bureau has produced three films which may be borrowed or purchased, and two sets of slides which may be borrowed on the same terms as its films. These are being widely used not only by the State bureaus administering the maternity and infancy act but by medical societies, nursing organizations, and organizations of other than professional character, also to some extent by State universities.

¹³ March, 1925, was the date of issuance of Child Management. Since this bulletin presents in simple form the latest scientific information on the treatment of feeding problems, jealousy, fear, anger, and habit formation in general, it has been much in demand. For instance, a commendatory editorial in one leading metropolitan daily brought over 1,000 individual requests for the bulletin from both parents and educators. Over 450 requests have been received for an arrangement of material from the bulletin prepared for use as a syndicate series by newspapers. Additional sections on disobedience, lying, and stealing have been incorporated in the second edition.

¹⁴ In 1924 the sales of these bulletins at the Government Printing Office were as follows: Prenatal Care, 26,466; Infant Care, 38,719; Child Care, 37,000. In 1925 the sales were estimated by the Superintendent of Documents as follows: Prenatal Care, 40,000; Infant Care, 100,000; Child Care, 50,000; Child Management, 8,000 (after March).

¹⁵ Detailed description of films, slides, and exhibit material and of conditions and procedure for borrowing and purchase can be had on application to the Children's Bureau.

"Our Children" is a two-reel film showing the efforts of a community to make itself safe for babies. A representation of a child-health conference is incorporated in the story. "Well Born" is a two-reel film presenting simply and convincingly the essentials of prenatal care, woven into sufficient narrative material to hold the interest of a popular audience. (These films may be purchased with Spanish titles, and one print of each film with the Spanish titles is also available for loan.) "Posture" is a two-reel film suitable for physicians, physical-education teachers, athletic directors, and recreation leaders, and also for general audiences. Either reel may be used alone, the first being a general introduction especially suitable for parents and children. One set of 50 slides shows the care of the baby. The other set (54 slides) deals with infant and child welfare.

The Children's Bureau is producing a series of film slides for use in automatic and hand film projectors. The negatives of these films are deposited with the producers, and prints are for sale by them (details may be learned on application to the Children's Bureau). The film slide entitled "Trails that Lead to Mothers and Babies" illustrates the work done under the maternity and infancy act. "The Healthy Baby" shows the essentials of good care for the baby from birth to the age of 2 years. "Rickets" shows the effects of this disease and how it is prevented and cured.

The Children's Bureau has a number of posters, wall maps, and series of panels for loan, and two sets of posters for free distribution. The titles of some series of posters especially suitable for use in connection with maternity and infant or preschool hygiene and welfare work are as follows: Food for the Growing Child, Infant Welfare, the Food Composition and Caloric Value of Different Articles of Food, Maternal and Infant Mortality Charts.

A model of a prenatal and child-health center, and a model nursery have been prepared during the fiscal year under review and have already been widely used.

For further details see page 81 of report.

APPENDIXES

APPENDIX A.—TEXT OF THE ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY

[S. 1039—Sheppard-Towner Act; Public 97—67th Congress; 42 Stat. 135]

An Act For the promotion of the welfare and hygiene of maternity and infancy, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated annually, out of any money in the Treasury not otherwise appropriated, the sums specified in section 2 of this Act, to be paid to the several States for the purpose of cooperating with them in promoting the welfare and hygiene of maternity and infancy as hereinafter provided.

SEC. 2. For the purpose of carrying out the provisions of this Act, there is authorized to be appropriated, out of any moneys in the Treasury not otherwise appropriated, for the current fiscal year \$480,000, to be equally apportioned among the several States, and for each subsequent year, for the period of five years, \$240,000, to be equally apportioned among the several States in the manner hereinafter provided: *Provided*, That there is hereby authorized to be appropriated for the use of the States, subject to the provisions of this Act, for the fiscal year ending June 30, 1922, an additional sum of \$1,000,000, and annually thereafter, for the period of five years, an additional sum not to exceed \$1,000,000: *Provided further*, That the additional appropriations herein authorized shall be apportioned \$5,000 to each State and the balance among the States in the proportion which their population bears to the total population of the States of the United States, according to the last preceding United States census: *And provided further*, That no payment out of the additional appropriation herein authorized shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State for the maintenance of the services and facilities provided for in this Act.

So much of the amount apportioned to any State for any fiscal year as remains unpaid to such State at the close thereof shall be available for expenditures in that State until the close of the succeeding fiscal year.

SEC. 3. There is hereby created a Board of Maternity and Infant Hygiene, which shall consist of the Chief of the Children's Bureau, the Surgeon General of the United States Public Health Service, and the United States Commissioner of Education, and which is hereafter designated in this Act as the Board. The Board shall elect its own chairman and perform the duties provided for in this Act.

The Children's Bureau of the Department of Labor shall be charged with the administration of this Act, except as herein otherwise provided, and the Chief of the Children's Bureau shall be the executive officer. It shall be the duty of the Children's Bureau to make or cause to be made such studies, investigations, and reports as will promote the efficient administration of this Act.

SEC. 4. In order to secure the benefits of the appropriations authorized in section 2 of this Act, any State shall, through the legislative authority thereof, accept the provisions of this Act and designate or authorize the creation of a State agency with which the Children's Bureau shall have all necessary powers to cooperate as herein provided in the administration of the provisions of this Act: *Provided*, That in any State having a child-welfare or child-hygiene division in its State agency of health, the said State agency of health shall administer the provisions of this Act through such divisions. If the legislature of any State has not made provision for accepting the provisions of this Act the

governor of such State may in so far as he is authorized to do so by the laws of such State accept the provisions of this Act and designate or create a State agency to cooperate with the Children's Bureau until six months after the adjournment of the first regular session of the legislature in such State following the passage of this Act.

SEC. 5. So much, not to exceed 5 per centum, of the additional appropriations authorized for any fiscal year under section 2 of this Act, as the Children's Bureau may estimate to be necessary for administering the provisions of this Act, as herein provided, shall be deducted for that purpose, to be available until expended.

SEC. 6. Out of the amounts authorized under section 5 of this Act the Children's Bureau is authorized to employ such assistants, clerks, and other persons in the District of Columbia and elsewhere, to be taken from the eligible lists of the Civil Service Commission, and to purchase such supplies, material, equipment, office fixtures, and apparatus, and to incur such travel and other expenses as it may deem necessary for carrying out the purposes of this Act.

SEC. 7. Within sixty days after any appropriation authorized by this Act has been made, the Children's Bureau shall make the apportionment herein provided for and shall certify to the Secretary of the Treasury the amount estimated by the bureau to be necessary for administering the provisions of this Act, and shall certify to the Secretary of the Treasury and to the treasurers of the various States the amount which has been apportioned to each State for the fiscal year for which such appropriation has been made.

SEC. 8. Any State desiring to receive the benefits of this Act shall, by its agency described in section 4, submit to the Children's Bureau detailed plans for carrying out the provisions of this Act within such State, which plans shall be subject to the approval of the board: *Provided*, That the plans of the States under this Act shall provide that no official, or agent, or representative in carrying out the provisions of this Act shall enter any home or take charge of any child over the objection of the parents, or either of them, or the person standing in loco parentis or having custody of such child. If these plans shall be in conformity with the provisions of this Act and reasonably appropriate and adequate to carry out its purposes they shall be approved by the board and due notice of such approval shall be sent to the State agency by the chief of the Children's Bureau.

SEC. 9. No official, agent, or representative of the Children's Bureau shall by virtue of this Act have any right to enter any home over the objection of the owner thereof, or to take charge of any child over the objection of the parents, or either of them, or of the person standing in loco parentis or having custody of such child. Nothing in this Act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose.

SEC. 10. Within sixty days after any appropriation authorized by this Act has been made, and as often thereafter while such appropriation remains unexpended as changed conditions may warrant, the Children's Bureau shall ascertain the amounts that have been appropriated by the legislatures of the several States accepting the provisions of this Act and shall certify to the Secretary of the Treasury the amount to which each State is entitled under the provisions of this Act. Such certificate shall state (1) that the State has, through its legislative authority, accepted the provisions of this Act and designated or authorized the creation of an agency to cooperate with the Children's Bureau, or that the State has otherwise accepted this Act, as provided in section 4 hereof; (2) the fact that the proper agency of the State has submitted to the Children's Bureau detailed plans for carrying out the provisions of this Act, and that such plans have been approved by the board; (3) the amount, if any, that has been appropriated by the legislature of the State for the maintenance of the services and facilities of this Act, as provided in section 2 hereof; and (4) the amount to which the State is entitled under the provisions of this Act. Such certificate, when in conformity with the provisions hereof, shall, until revoked as provided in section 12 hereof, be sufficient authority to the Secretary of the Treasury to make payment to the State in accordance therewith.

SEC. 11. Each State agency cooperating with the Children's Bureau under this Act shall make such reports concerning its operations and expenditures as shall be prescribed or requested by the bureau. The Children's Bureau may, with the approval of the board, and shall, upon request of a majority of the board, withhold any further certificate provided for in section 10 hereof whenever it shall be determined as to any State that the agency thereof has not properly expended the money paid to it or the moneys herein required to be appropriated by such State for the purposes and in accordance with the provisions of this Act. Such certificate may be withheld until such time or upon such conditions as the Children's Bureau, with the approval of the board, may determine; when so withheld the State agency may appeal to the President of the United States who may either affirm or reverse the action of the Bureau with such directions as he shall consider proper: *Provided*, That before any such certificate shall be withheld from any State, the chairman of the board shall give notice in writing to the authority designated to represent the State, stating specifically wherein said State has failed to comply with the provisions of this Act.

SEC. 12. No portion of any moneys apportioned under this Act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings or equipment, or for the purchase or rental of any buildings or lands, nor shall any such moneys or moneys required to be appropriated by any State for the purposes and in accordance with the provisions of this Act be used for the payment of any maternity or infancy pension, stipend, or gratuity.

SEC. 13. The Children's Bureau shall perform the duties assigned to it by this Act under the supervision of the Secretary of Labor, and he shall include in his annual report to Congress a full account of the administration of this Act and expenditures of the moneys herein authorized.

SEC. 14. This Act shall be construed as intending to secure to the various States control of the administration of this Act within their respective States, subject only to the provisions and purposes of this Act.

Approved, November 23, 1921.

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APPENDIX B.—LIST OF ADMINISTRATIVE AGENCIES AND OFFICERS

State administrative agencies and names of the executive officers for the administration of the act for the promotion of the welfare and hygiene of maternity and infancy (as of June 30, 1925)

State	Department and executive officer	Division and director
Alabama.....	State board of health, Dr. S. W. Welch..	Bureau of child hygiene and public-health nursing, Jessie L. Marriner, R. N.
Arizona.....	State board of health, Dr. F. T. Fahlen..	Child-hygiene division, Mrs. Charles R. Howe.
Arkansas.....	State board of health, Dr. C. W. Garrison.	Bureau of child hygiene, Dr. Margaret Koenig, associate director.
California.....	State board of health, Dr. Walter M. Dickie, secretary.	Bureau of child hygiene, Dr. Ellen S. Stadtmuller.
Colorado.....	Department of public instruction, Mrs. Mary C. C. Bradford, superintendent.	Child-welfare bureau, Mrs. E. N. Mathews, executive secretary.
Connecticut ¹	Department of health, Dr. Stanley H. Osborne.	Bureau of child hygiene, Dr. A. E. Ingraham.
Delaware.....	State board of health, Dr. Arthur T. Davis, executive secretary.	Marie T. Lockwood, R. N., supervisor of nurses.
Florida.....	State board of health, Dr. R. C. Turk..	Bureau of child welfare and public-health nursing, Laurie Jean Reid, R. N.
Georgia.....	State board of health, Dr. T. F. Abercrombie.	Division of child hygiene, Dr. Joe P. Bowdoin.
Hawaii.....	Board of health, Dr. F. E. Trotter, president.	
Idaho.....	Department of public welfare, David Burrell.	Bureau of child hygiene, Dr. F. W. Almond.
Illinois ¹	Department of public health, Dr. Isaac D. Rawlings, director.	Division of child hygiene and public-health nursing, Dr. R. C. Cook, acting director.
Indiana.....	State board of health, Dr. William F. King.	Division of infant and child hygiene, Dr. Ada E. Schweitzer.
Iowa.....	State University of Iowa, Dr. Walter A. Jessup, president.	Division of maternity and infant hygiene, Edward H. Lauer, Ph. D.
Kansas ¹	State board of health, Dr. Milton O. Nyberg, secretary.	Division of child hygiene, Lillian Fitzpatrick, R. N.
Kentucky.....	State board of health, Dr. A. T. McCormack.	Bureau of maternal and child health, Dr. Annie S. Veech.
Louisiana.....	State board of health, Dr. Oscar Dowling, president.	Bureau of child hygiene, Agnes Morris.
Maine ¹	Department of health, Dr. C. F. Kendall, commissioner.	Division of public-health nursing and child hygiene, Edith Soule, R. N.
Maryland.....	Department of health, Dr. John S. Fulton, director of health.	Bureau of child hygiene, Dr. J. H. Mason Knox, jr., chief.
Massachusetts ¹	Department of public health, Dr. Eugene R. Kelley, commissioner.	Division of hygiene, Dr. Merrill E. Champion.
Michigan.....	Department of health, Dr. Richard M. Olin, commissioner.	Bureau of child hygiene and public-health nursing, Dr. Blanche M. Haines.
Minnesota.....	State Department of health, Dr. A. J. Chesley.	Division of child hygiene, Dr. Ruth E. Boynton.
Mississippi.....	State board of health, Dr. F. J. Underwood.	Bureau of child hygiene and public-health nursing, Mary D. Osborne, R. N., supervising nurse.
Missouri.....	State board of health, Dr. James Stewart, secretary.	Division of child hygiene, Dr. Irl Brown Krause.
Montana.....	State board of health, Dr. W. F. Cogswell.	Division of child welfare, Dr. Frances Sage Bradley, acting director.
Nebraska.....	Department of public welfare, Judge Lincoln Frost.	Division of child hygiene, Mrs. C. H. England.
Nevada.....	State board of health, Dr. S. L. Lee, secretary.	Child-welfare division, Mrs. S. H. Wheeler, executive secretary.
New Hampshire.....	State board of health, Dr. Charles Duncan.	Division of maternity, infancy, and child hygiene, Elena M. Crough, R. N.
New Jersey.....	Department of health, Dr. H. B. Costill.	Bureau of child hygiene, Dr. Julius Levy, consultant.
New Mexico ²	Board of public welfare, Mrs. Francis C. Wilson, president.	Bureau of public health, Dr. G. S. Luckett; division of child hygiene and public-health nursing, Dorothy R. Anderson, R. N.; bureau of child welfare, Margaret Reeves.

¹ These States were not cooperating. ² See footnote 4, p. 19.

State	Department and executive officer	Division and director
New York.....	Department of health, Dr. M. Nicoll, commissioner of health.	Division of maternity, infancy, and child hygiene, Dr. Florence L. McKay.
North Carolina...	State board of health, Dr. W. S. Rankin.	Bureau of maternity and infancy, Dr. H. A. Taylor.
North Dakota.....	Department of public health, Dr. A. A. Whittemore.	Division of child hygiene and public-health nursing, Dr. Maysil M. Williams.
Ohio.....	Department of health, Dr. J. E. Monger.	Division of hygiene, Dr. R. G. Leland, chief.
Oklahoma.....	Department of health, Dr. Carl Puckett, commissioner of health.	Bureau of maternity and infancy, Dr. Lucile S. Blachly.
Oregon.....	State board of health, Dr. Frederick D. Stricker.	Bureau of child hygiene, Glendora M. Blakely, R. N., assistant director.
Pennsylvania.....	Department of health, Dr. Charles H. Miner.	Bureau of child health, Dr. J. B. McCreary; preschool division, Dr. Mary Riggs Noble, chief.
Rhode Island.....	State board of health, Dr. B. U. Richards, secretary.	Division of child welfare, Dr. Marion A. Gleason.
South Carolina....	State board of health, Dr. James A. Hayne, State health officer.	Bureau of child hygiene and public-health nursing, Ada Taylor Graham, R. N.
South Dakota.....	State board of health, Dr. P. B. Jenkins, superintendent.	Division of child hygiene, Dr. Clara E. Hayes.
Tennessee.....	Department of public health, Dr. E. L. Bishop, commissioner of health.	Division of maternal and infant hygiene, Dr. E. A. Lane, superintendent.
Texas.....	State board of health, Dr. H. O. Sappington.	Bureau of child hygiene, Dr. H. N. Barnett.
Utah.....	State board of health, Dr. T. B. Beatty, State health commissioner.	Bureau of child hygiene, Dr. H. Y. Richards.
Vermont.....	Department of public health, Dr. Charles F. Dalton, secretary.	
Virginia.....	State board of health, Dr. E. G. Williams.	Bureau of child welfare, Dr. Mary E. Brydon.
Washington.....	Department of health, Dr. Paul A. Turner.	Division of child hygiene, Dr. George Mohr.
West Virginia.....	Department of health, Dr. W. T. Henshaw.	Division of child hygiene and public-health nursing, Mrs. Jean T. Dillon, R. N.
Wisconsin.....	State board of health, Dr. C. A. Harper.	Bureau of child welfare and public-health nursing, Mrs. Mary P. Morgan, R. N.
Wyoming.....	Department of public health, Dr. G. M. Anderson.	Division of maternal and infant welfare and child hygiene, Louise Buford, R. N.

APPENDIX C.—MATERNAL AND INFANT MORTALITY RATES

TABLE I.—Trend of maternal mortality in the United States birth-registration area, by States, 1915-1924¹

State	Maternal mortality rates in the birth-registration area in—									
	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Area.....	6.1	6.2	6.6	9.2	7.4	8.0	6.8	6.6	6.7	6.6
California.....					8.0	7.7	6.8	7.2	6.7	5.9
Connecticut.....	5.6	4.9	5.1	7.5	6.2	6.8	5.3	5.7	5.7	5.7
Delaware.....							6.3	6.6	8.4	7.7
Florida.....										12.1
Illinois.....								6.3	6.4	6.2
Indiana.....			7.2	10.4	8.4	8.7	6.9	6.6	6.5	5.8
Iowa.....										6.0
Kansas.....			7.6	11.4	8.2	8.4	6.4	7.6	6.8	6.3
Kentucky.....			6.0	8.0	6.3	6.4	6.3	6.1	6.0	6.2
Maine.....	6.8	7.8	6.7	8.6	8.6	8.5	7.4	7.6	8.7	8.2
Maryland.....		6.4	6.8	9.5	8.4	7.6	6.7	5.9	6.0	6.6
Massachusetts.....	5.7	6.0	6.5	9.2	7.1	7.5	6.5	6.8	6.3	6.5
Michigan.....	6.7	6.8	7.4	8.6	7.7	9.3	6.9	6.9	7.0	6.5
Minnesota.....	5.2	5.5	5.6	7.8	6.7	7.9	5.7	4.9	6.0	5.0
Mississippi.....							9.5	8.3	8.8	9.5
Montana.....								7.9	7.5	6.6
Nebraska.....						7.1	6.6	5.8	5.8	6.3
New Hampshire.....	6.1	7.2	7.0	7.8	8.0	7.1	6.2	6.5	7.4	6.1
New Jersey.....							5.9	6.4	5.7	6.2
New York.....	5.9	5.4	5.7	8.0	6.2	6.9	6.3	6.0	5.7	5.9
North Carolina.....			8.2	10.8	9.3	10.0	7.3	8.0	8.0	7.7
North Dakota.....										5.7
Ohio.....			7.1	9.7	7.4	8.0	7.2	6.6	7.2	6.4
Oregon.....					10.1	9.4	7.4	8.3	6.9	6.5
Pennsylvania.....	6.4	7.0	6.5	10.5	6.8	7.8	6.8	6.2	6.6	6.3
Rhode Island.....	6.6	5.8	6.3	9.8	(3)	(2)	7.1	5.5	6.3	6.3
South Carolina.....					11.2	12.2	9.8	10.7	9.7	10.8
Utah.....			5.9	8.6	8.4	7.9	7.3	5.5	5.0	4.5
Vermont.....	6.1	7.8			8.0	7.0	7.3	7.4	7.0	8.1
Virginia.....			8.2	10.7	8.2	8.6	7.0	7.2	7.4	6.5
Washington.....			7.4	9.9	8.6	9.2	7.8	7.9	6.7	7.1
Wisconsin.....			5.7	6.0	4.8	6.7	5.8	5.6	5.8	6.0
Wyoming.....								7.1	7.3	9.8
District of Columbia.....	7.0	10.1	8.5	9.1	8.5	8.8	10.1	7.1	10.1	12.2

¹ Source: U. S. Bureau of the Census. ² Dropped from the birth-registration area.

TABLE II.—Trend of infant mortality in the United States birth-registration area, by States, 1915-1924¹

State	Infant mortality rates in the birth-registration area in—									
	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Area.....	100	101	94	101	87	86	76	76	77	71
California.....					70	74	66	71	73	67
Connecticut.....	107	101	94	107	86	92	73	77	77	69
Delaware.....							98	100	104	95
Florida.....										82
Illinois.....								76	82	71
Indiana.....			86	87	79	82	71	67	71	65
Iowa.....										55
Kansas.....			77	80	70	73	63	65	63	59
Kentucky.....			87	93	82	73	62	69	72	65
Maine.....	105	108	93	101	91	102	88	86	89	81
Maryland.....		121	120	140	105	104	94	94	95	86
Massachusetts.....	101	100	98	113	88	91	76	81	78	68
Michigan.....	86	96	88	89	90	92	79	75	80	72
Minnesota.....	70	70	67	71	67	66	59	58	62	57
Mississippi.....							68	68	68	71
Montana.....								70	71	67
Nebraska.....						64	59	57	57	55
New Hampshire.....	110	115	110	113	93	88	87	80	93	80
New Jersey.....							74	79	72	70
New York.....	99	94	91	97	84	86	75	77	72	69
North Carolina.....			100	102	84	85	75	80	81	82
North Dakota.....										67
Ohio.....			92	94	90	83	75	72	75	67
Oregon.....					63	62	51	58	57	54
Pennsylvania.....	110	114	111	129	100	97	88	88	90	79
Rhode Island.....	120	111	108	126	(²)	(²)	93	85	94	80
South Carolina.....					113	116	96	93	96	102
Utah.....			69	64	71	71	73	69	59	64
Vermont.....	85	93	85	93	85	96	78	73	76	70
Virginia.....			98	103	91	84	79	77	84	78
Washington.....			69	69	63	66	55	62	57	56
Wisconsin.....			78	79	80	77	72	71	70	65
Wyoming.....								79	80	64
District of Columbia.....	111	106	97	112	85	91	83	85	92	76

¹ Source: U. S. Bureau of the Census. ² Dropped from the birth-registration area.

APPENDIX D.—PUBLICATIONS OF THE CHILDREN'S BUREAU (AND REPRINTS) BEARING UPON MATERNAL, INFANT, AND CHILD WELFARE AND HYGIENE

BULLETINS

- The Promotion of the Welfare and Hygiene of Maternity and Infancy—Report of the administration of the act of Congress of November 23, 1921, for the period March 20, 1922, to June 30, 1923. No. 137. 42 pp.
- The Promotion of the Welfare and Hygiene of Maternity and Infancy—Report of the administration of the act of Congress of November 23, 1921, for fiscal year ended June 30, 1924. No. 146. 56 pp.
- Prenatal Care, by Mrs. Max West. No. 4. 41 pp.
- Infant Care (revised). No. 8. 118 pp.
- Child Care—The Preschool Age, by Mrs. Max West. No. 30. 82 pp.
- Child Management, by D. A. Thom, M. D. No. 143. 24 pp.
- Habit Clinics for the Child of Preschool Age; their organization and practical value, by D. A. Thom, M. D. No. 135. 71 pp.
- Standards of Prenatal Care; an outline for the use of physicians. No. 153. 4 pp. (also sample form for pregnancy record.)
- Standards for Physicians Conducting Conferences at Child-Health Centers. No. 154. 11 pp. (also sample forms for conference record.)
- Nutrition Work for Preschool Children, by Agnes K. Hanna. No. 138. 25 pp.
- The Nutrition and Care of Children in a Mountain County of Kentucky, by Lydia Roberts. No. 110. 41 pp.
- Physical Status of Preschool Children, Gary, Indiana, by Anna E. Rude, M. D. No. 111. 84 pp.
- Children of Preschool Age in Gary, Indiana.—Part I, General Conditions Affecting Child Welfare, by Elizabeth Hughes; Part II, Diet of the Children, by Lydia Roberts. No. 122. 175 pp.
- Causal Factors in Infant Mortality; a statistical study based on investigations in eight cities, by Robert Morse Woodbury, Ph. D. A consolidated report of the Children's Bureau studies in this field. No. 142. 245 pp.
- Maternal Mortality; the risk of death in childbirth and from all diseases caused by pregnancy and confinement, by Robert Morse Woodbury, Ph. D. No. 158. 163 pp.
- A Tabular Summary of State Laws Relating to Public Aid to Children in Their Own Homes in Effect January 1, 1925, and the text of the laws of certain States. Revised Edition. Chart No. 3. 37 pp.

REPRINTS

- The Control of Rickets; a preliminary discussion of the demonstration in New Haven, by Martha M. Eliot, M. D. (Reprinted from the Journal of the American Medical Association, Aug. 29, 1925, vol. 85, pp. 656-661.) 19 pp.
- Causes and Prevention of Antenatal, Intranatal, Postnatal, and Neonatal Deaths, by Fred L. Adair, M. D., and William A. O'Brien, M. D. (Reprinted from Transactions of the Second Annual Meeting, American Child Health Association, October, 1924.) 10 pp.
- Decline in Infant Mortality in the United States Birth-Registration Area, 1915 to 1921, by Robert Morse Woodbury, Ph. D. (Reprinted from the American Journal of Public Health, May, 1923.) 7 pp.
- Economic Factors in Infant Mortality, by Robert Morse Woodbury, Ph. D. (Reprinted from the Quarterly Publication of the American Statistical Association, June, 1924.) 19 pp.
- Federal Aid for the Protection of Maternity and Infancy, by Grace Abbott. (Revised reprint from the American Journal of Public Health, September, 1924.) 8 pp.
- Posture Standards; a survey on the relationship of posture to physical fitness, by Armin Klein, M. D., and Leah C. Thomas. (Reprinted from the Child Health Magazine, November, 1924.) 4 pp.
- The Midwife Problem in the United States, by Anna E. Rude, M. D. (Reprinted from The Journal of the American Medical Association, Sept. 22, 1923, vol. 81, pp. 987-992.) 15 pp.
- The Trend of Maternal Mortality Rates in the United States Death-Registration Area, 1900-1921, by Robert Morse Woodbury, Ph. D. (Reprinted from the American Journal of Public Health, September, 1924.) 7 pp.

Westergaard's Method of Expected Deaths as Applied to the Study of Infant Mortality, by Robert Morse Woodbury, Ph. D. (Reprinted from the Quarterly Publication of the American Statistical Association, September, 1922.) 12 pp.

CHARTS

- Deaths Under 1 Year of Age, by Cause of Death.
- Deaths Under 1 Year of Age, by Monthly Age Groups.
- Decline in Infant Mortality, from Selected Causes, 1915-1921.
- Decrease in Summer Deaths, 1915-1920; deaths under 2 years of age from diarrhea and enteritis.
- Infant-Mortality Thermometer; deaths under 1 year of age per 1,000 live births.
- Maternal-Mortality Thermometer; deaths from puerperal causes per 1,000 live births.
- Relative Mortality among Artificially and Breast Fed Infants; deaths among artificially-fed infants compared with number expected at mortality rates prevailing among breast-fed infants.
- Summer Peak of Infant Deaths; deaths under 2 years of age from diarrhea and enteritis.

DODGERS

- Books and Pamphlets on Child Care. No. 1.
- Is Your Child's Birth Recorded? (Revised). No. 3.
- Bottle Feeding. No. 5.
- Feeding the Child. No. 8.
- The Care of the Baby (revised). No. 9.
- What Do Growing Children Need? No. 10.

FOLDERS

- Minimum Standards of Prenatal Care (revised). No. 1.
- Why Drink Milk? No. 3.
- What Builds Babies? No. 4.
- Sunlight for Babies. No. 5.

BLANK FORMS

- Pregnancy Record.
- Infant and Preschool Conference Record.



