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WORK FOR EXPECTANT MOTHERS IN CERTAIN AMERICAN CITIES.

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The problem of infant mortality should be studied in two distinct periods—first, the mortality of infants under one month of age; and second, the mortality of infants over one month of age. The United States census of 1910 showed that 37 per cent., more than one-third, of the total infant mortality in the registration area occurred in infants under one month of age. The charts, made by John S. Fulton, M.D., the Secretary-General of this Congress, show graphically the influence of antenatal conditions on the mortality before and after birth.†

At the suggestion of the Federal Children's Bureau, this report deals with the mortality under one month of age and the means of combating it by the instruction and care of expectant mothers. This is by no means a comprehensive report, but merely a summary of characteristic features of certain cities personally investigated. Similar work is being done in other cities.

METHODS OF WORK.

The general methods of the organizations giving instructions to expectant mothers may be stated

†In article on "The Necessity for Minute Study of the Age—Incidents of Causes of Infant Mortality in Proceedings of the American Association for Study and Prevention of Infant Mortality," Vol. I—1910.

as follows, subject to some variation in matters of detail.

The medical director in charge of the prenatal work in the various organizations is generally an obstetrician, though there are some pediatricians who have undertaken this work; men whose social instincts have led them into this special field of preventive medicine.

The nurses carry out the orders of the physicians, or see that it is made possible for the mothers to carry them out. They are graduate nurses, chosen for their special fitness and tact. The nurses need also a knowledge of food values. It is not enough to see that food is provided, in cases of special need, by a relief society; the nurse must see that the food supplied is of the right kind to suit the individual need of each mother, as ordered by the physician.

The nurses visit the expectant mothers in some cities once in ten days, in others once in two weeks, and in others once a month.

The cases are referred to the various organizations doing prenatal work by hospitals, dispensaries, milk stations, social settlements, and by the various charitable agencies. One serious obstacle is that mothers are late in registering, although the effort is to secure enrollment for as long a period preceding delivery as possible.

In some cities printed leaflets are distributed, giving plainly stated advice to the expectant mother; but in many cases they are of little value because of difference in languages.

Instruction is usually given by the physician, either individually or in classes, when the mothers attend the clinics or dispensaries, and is followed up by the nurses in the home. The subjects covered are general and antenatal hygiene, including the need of nourishing food and the value of fresh air, the regulation of exercise, clothing and bathing, and the care of the breasts.

The nurse discusses with the mothers the arrangements for the confinement; whether it shall be in the home or in a hospital; the physician having in view, on the one hand, the advantages of hospital care, and, on the other, the disadvantages of taking the mother's moral support away from the home.

The danger of overstrain is obviated, in some cities, by sending in an extra helper to assist with the heaviest part of the work in the home.

The nurse also encourages the mothers to save small sums all through the pregnancy for the extra expenses of the confinement, lest they suffer from having to meet these expenses by depriving themselves of proper nourishment and extra help in the last few weeks. These savings are made in different ways, as in the penny savings stamp books used by Miss Strong in Boston in her settlement work in South End House.

STATISTICAL REPORTS.

The plans and methods of the different organizations have not yet been standardized. The work develops according to the spirit and genius of each. The records are not uniform. It has seemed best, therefore, to present the statistics in the form furnished by the several societies.

NEW YORK CITY.

To the honored chairman of this section, Dr. A. Jacobi, belongs the credit of initiating the movement in New York City. In 1907, Dr. Jacobi called the attention of a group of people to the need of instruction and special care for the mothers of the very poor with new-born babies. This led to the founding of "Caroline Rest," by Mr. George Schrader, at Hartsdale, near New York. This convalescent home is also a school for mothers, in which, during the weeks following confinement, the mothers are taught how to care for themselves

and their babies. It is administered by the New York Association for Improving the Condition of the Poor. The work has proved highly successful. The results quickly revealed, however, that they had not reached back far enough, and that much more good might be accomplished if the expectant mothers could be instructed and given care. "Caroline Rest Nurses" were therefore assigned for this purpose. The period for which their statistics are available is the year 1908 to 1909. Period covered twelve months.

MOTHERS:

Number visited before confinement.....	489
Number confined by physician in hospital or home—	
Survived	384
Died in or after confinement.....	6
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	390
Number confined by midwife—	
Survived	82
Died in or after confinement.....	17
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	99
 Total survived.....	 466
Total died in or after confinement.....	23

In October, 1908, the Pediatric Department of the New York Outdoor Medical Clinic undertook a systematic care of the expectant mothers registered. From that date until the first of October, 1912, 3,300 mothers have been under their care, to whom visits have been paid once a month. Herman Schwarz, M.D., director of the Pediatric Department, found that 3 per cent. of their women registering were under their supervision before the sixth month of pregnancy; 17 per cent. were supervised during the sixth month; 30 per cent. registered between the seventh and eighth month, and the remaining 50 per cent. during the ninth month.

In August, 1911, the New York Milk Committee began systematic work for expectant mothers.

From August 1, 1911, to June 1, 1912, they had two nurses and one field physician, with two medical directors to supervise the work. Since June 1st they have added four field nurses and a supervising nurse. Period covered twelve months.

MOTHERS:

Number visited before confinement—	
Survived	916
Died in or after confinement	1
Total	917

INFANTS:

Number living at end of first month (a)	867
Number died during first month	21
Number of still births	18
Number of miscarriages	15

Total (a) 921

(a) Five pairs of twins.

Number living at end of first month—	
Breast-fed entirely	812
Mixed feeding	25
Bottle-feeding entirely	30
Total	867

The deaths under one month of age were 23.6 per thousand live births; whereas, the mortality of infants under a month of age in Manhattan, in general, was 40.9 per thousand. The still-births reported were 19.6 per thousand, while the still-birth rate in Manhattan, in general, was 48.6 per thousand.*

The New York Diet Kitchen is organizing prenatal instruction, beginning with the negro mothers. They report an encouraging disposition on the part of these mothers to follow instructions.

*Of all the record forms seen, those used by the New York Milk Committee are the most complete and satisfactory.

BOSTON.

In Boston prenatal work was organized by a Committee on Infant Social Service in the Women's Municipal League in April, 1909, under the chairmanship of Mrs. William Lowell Putnam. This committee had done most effective pioneer work in standardizing and co-ordinating the work, in the hope, as Mrs. Putnam has said, "that care during pregnancy will become as much a matter of course as it now is during confinement." The printed reports on this work by the committee are valuable. The period covered by their report is from April, 1909, to August, 1912. Period covered three years and three months.

MOTHERS:

Number visited before confinement—

8 months.....	1
7 months.....	1
6 months.....	4
5 months.....	8
4 months.....	37
3 months.....	143
2 months.....	391
1 month.....	579

1,164

Not stated.....197

Total.....1,361

Number confined by

Physician in hospital.....	953
Physician in home.....	211

1,164

Lost sight of before confinement.....197

Total.....1,361

Race:

White.....	1,116
Colored.....	48

1,164

Not stated.....197

Total.....1,361

INFANTS:

Number of still births.....	33
Number of miscarriages.....	3
Total.....	36

FOOTNOTE.—The following reprints have been published by the committee: "Report of Boston Prenatal Work," Nov., 1910; Report from April to October, 1911; "An Experiment in Preventive Work with Mothers and Babies—Prenatal and Postnatal;" "Prenatal Care and its Effect in Supplanting the Midwife, from the Point of View of What Lay Women Can Accomplish," by Mrs. Putnam, 1911.

The Boston Board of Health, in 1910, organized a prenatal and postnatal subdivision of its Division of Child Hygiene. Their statistics cover the period from September 1, 1911, to May 1, 1912. Period covered eight months.

MOTHERS:

Number visited before confinement.....	725
Number confined by	
Physician in hospital.....	127
Physician in home.....	49
Midwife.....	217
	393
Not stated.....	232
Total.....	725

INFANTS:

Number of births.....	393
Number of deaths.....	2
Feeding:	
Breast-feeding entirely.....	302
Mixed feeding.....	32
Bottle-feeding entirely.....	43
	377
Not stated.....	16
Total.....	393

The Pregnancy Clinic of the Boston Lying-in Hospital was organized May 5, 1911. The period

covered in their report is from May 5, 1911, to December 31, 1911. Period covered seven months.

MOTHERS:

Number supervised.....	1,106
Died in or after confinement.....	6
Number confined by	
Physician in hospital.....	246
Physician in home.....	698
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	944
Not stated.....	162
	<hr/>
Total.....	1,106
Race:	
Native white.....	79
Colored	7
Foreign	420
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	506
Not stated.....	600
	<hr/>
	1,106
Number unmarried.....	17

INFANTS:

Number living at end of first month (full term)...	898
Number died during first month (full term).....	5
Number living at end of first month (premature),	3
Number died during first month (premature).....	4
	<hr/>
	910
Still births.....	30
Miscarriages	6
	<hr/>
Total.....	946

South End House, one of the social settlements, began systematic work in May, 1910. Miss Mary L. Strong, the visiting nurse, has the work in charge. She reports on the plan of work there as follows:

1. Trying to make all recognized forces doing maternity preparation more effective by supplying

the varying details which of necessity have been omitted. (These are generally confidential, spiritual or home-making details.)

2. Trying to stimulate into existence more of such forces for prenatal work.

3. Trying to put within reach of the fathers and mothers concerned, an intelligent understanding of these forces and their values, and trying to help them choose wisely in their preparation for the child's coming. This sort of guidance divides itself naturally into three interests: (a) the economic; (b) the hygienic; and (c) the imaginative.

Miss Strong says of the educational work done for fathers:

"We try to make him feel that the baby is to be a veritable social investment, into which he must be willing to put thought, time and money at the start, if he wishes it to be a good and repaying venture. It may be a late date at which to begin eugenics, but if his sense of protective watchfulness can be stirred to conserve the strength of the mother for the good of the child, then he has dignified himself anew."

Statistics of South End House show (for a period covering one year):

MOTHERS:

Number visited before confinement:	
9 months.....	6
8 months.....	10
7 months.....	4
6 months.....	27
5 months.....	20
4 months.....	10
3 months.....	6
2 months.....	1
1 month.....	4
Total.....	88

Number confined by	
Physician in hospital.....	18
Physician in home.....	35
	<hr/>
(Survived) 63	
Lost sight of before confinement.....	10
Lost sight of pending confinement.....	25
	<hr/>
Total.....	88
Race:	
Native white.....	37
Colored	2
Foreign	14
	<hr/>
	53
Not stated.....	35
	<hr/>
	88
Number unmarried.....	2

INFANTS:

Number living at end of first month.....	51
Number died during first month.....	1
Number still births.....	1
	<hr/>
	53

BALTIMORE.

In Baltimore prenatal work was undertaken by the Maryland Association for the Study and Prevention of Infant Mortality, February 1, 1912. They visit and instruct all women registered in four leading hospitals. In their report on prenatal work the period covered is from February 1st to September 1, 1912. Period covered seven months.

MOTHERS:

Number visited before confinement:	
8 months.....	5
7 months.....	7
6 months.....	15
5 months.....	27
4 months.....	58
3 months.....	105
2 months.....	128
1 month.....	256
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Total.....	601

Number survived.....	278
Died in or after confinement.....	5
Died before confinement.....	3
Lost sight of before confinement.....	71
Pending.....	239
Not stated.....	5

Total.....601

Number confined by	
Physician in hospital.....	30
Physician in home.....	241
Midwife.....	12
	283

Race:	
Native white.....	186
Colored.....	298
Foreign.....	117
	601

Number unmarried.....116

INFANTS:

Number living at end of first month (full term).....	241
Number living at end of first month (premature).....	2
Number died during first month (premature).....	3

246

Still-births.....	29
Miscarriages.....	8

Total.....283

Supervised until one month old—	
Breast-feeding entirely.....	219
Mixed feeding.....	11
Bottle-feeding.....	11

Total.....241

CHICAGO.

In Chicago the Mary Crane Day Nursery began prenatal work July 22, 1912, for the women of the Hull House neighborhood. Expectant mothers come three days a week at 9 a. m. They are instructed from 9 to 12, while their older children are at school and their little ones in the day nur-

sery. First the physician, then the nurse sees the mother. Then comes class work under the domestic teacher. The following is the

Tentative Course of Instruction:

I. The house (talks, discussions and illustrations).

1. Essentials in selection of rooms
As to neighborhood conditions.
As to light, air, etc.
2. Furnishing.
3. House sanitation.

II. Food (talks and practice).

1. Composition and function.
2. Selection, storage and care.
3. Preparation of food.
4. Diets—

General.

Invalid (special emphasis placed upon their own present needs).
Infant.

III. Clothing (practical work in sewing room).

1. Materials.
2. Darning and mending.
3. Making of garments.

IV. Family budgets.

V. Hygiene (given by nurse and doctor—talks, demonstration and practice).

1. General (as to cleanliness, air, habits, etc.
2. Special—due to special condition.
3. Infant.

At noon the mothers gather, with their families, for the simple, wholesome meal provided for them. Following this comes a social hour, after which the older children go back to school, and the mothers and babies have a rest hour in the open air. Later there is another lesson, either in cooking or sewing or hygiene, and then the mothers go home in good season with their children.

ST. LOUIS.

The Visiting Nurse Association of St. Louis has carried on prenatal work as part of their daily routine since January 1, 1911. Period covered nineteen months.

MOTHERS:

Number visited before confinement:	
8 months.....	2
7 months.....	1
6 months.....	1
5 months.....	10
4 months.....	32
3 months.....	88
2 months.....	97
	<hr/>
	231
Time not stated.....	341
	<hr/>
Total.....	572
Number confined by physician at home.....	
572	
Survived	569
Died in or after confinement.....	3
	<hr/>
	572
Race:	
Native white	258
Colored	225
Foreign	89
	<hr/>
	572

INFANTS:

Number living at end of first month—	
Full term	534
Premature	6
Number died during first month—	
Full term	24
Premature	3
Still-birth	9
	<hr/>
Total.....	576

Supervised until one month old—

Number living at end of first month:	
Breast-feeding entirely	393
Mixed feeding	80
Bottle-feeding entirely	67
Number died during first month:	
Breast-feeding entirely	6
Mixed feeding	9
Bottle-feeding entirely	12
Total	567

(a) Two sets of twins, both living. One set of triplets, two living, one died first week.

In St. Louis the Social Service Department of Washington University undertook, May 1, 1912, to send a nurse to visit all women who register in the obstetrical clinic. The statistics given are for the three months—May, June and July, 1912. Period covered three months:

MOTHERS:

Number registered	190
Number confined by	
Physician in hospital	37
Physician in home	55
Midwife	2
Survived	94
Lost sight of before confinement	42
Not stated	54
	190

Race:

Native white	27
Colored	42
Foreign	25
Not stated	96
	190

Unmarried

12

INFANTS:

Number living at end of first month—	
Full term	94
Premature	2
Number died during first month—	
Full term	1
Premature	2
Still-births	3
Miscarriages	4
Total	106

MILWAUKEE.

In Milwaukee the Milwaukee Maternity Hospital and Free Dispensary Association "aims to have the prospective mothers report each week to the Dispensary for examination by the physician." Their statistics show (period covered not stated):

MOTHERS:

Number confined by	
Physician in hospital.....	260
Physician in home.....	276
	<hr/>
	536
Race:	
Native white.....	236
Foreign.....	300
	<hr/>
	536
Number unmarried.....	93

INFANTS:

Number living at end of first month—	
Full term.....	491
Premature.....	13
Number died during first month—	
Full term.....	7
Premature.....	3
Still-births.....	22
Miscarriages.....	6
	<hr/>
	542

The Visiting Nurses' Association in Chicago and in Buffalo have done prenatal work as a part of their regular routine, but their statistical records were not available for this report.

The District Nursing Association in Fall River has been doing excellent work in caring for the expectant mothers during the summer of 1912, of which the records are not as yet in shape for publication, but which show gratifying results.

Statistics.

The statistics as furnished by the various organizations in the different cities are tabulated in dif-

ferent ways, so that it is impossible to give a general brief summary of the results of their prenatal work. It is possible, however, to compare the still-birth rate and the rate of mortality in the first month among the mothers who were supervised, and the general population, both in Boston and in New York.

Boston:

Still-births per 1,000 confinements—	
Expectant mothers supervised (by the Pregnancy Clinic of the Boston Lying-in Hospital)	31.9
City of Boston.....	39.8
Deaths under one month per 1,000 births—	
Expectant mothers supervised (by the Pregnancy Clinic of the Boston Lying-in Hospital)	10.
City of Boston.....	45.7

NEW YORK:

Still-births per 1,000 confinements—	
Expectant mothers supervised (by the New York Milk Committee).....	19.6
Borough of Manhattan.....	48.6
Deaths under one month per 1,000 births—	
Expectant mothers supervised (by the New York Milk Committee).....	23.6
Borough of Manhattan.....	40.9

It is to be noted that the New York Milk Committee takes all cases, those attended by midwife as well as those under medical care, and that the period covered in their report is from August 1, 1911, to August 1, 1912. The Pregnancy Clinic of the Boston Lying-in Hospital report covers only those cared for in the hospital or by the clinic, and the period covered in their report is from May 5, 1911, to December 31, 1911.

This experience in Boston and New York indicates that where expectant mothers have had continued medical supervision, including the work done by the nurses who visit them in their homes, both the still-birth rate and the rate of mortality in the first month have been appreciably reduced.