

BREAST FEEDING IN THE REDUCTION OF INFANT MORTALITY

J. P. SEDGWICK, M. D.,
University of Minnesota, Minneapolis, Minn.,
and

E. C. FLEISCHNER, M. D.,
University of California, San Francisco, Cal.

Read before the Joint Meeting of Child Hygiene and Vital Statistics Sections, American Public Health Association, at San Francisco Cal., September 16, 1920.

These authors do not absolve their brother physicians from responsibility in the high infant mortality through bottle feeding and note that medical schools spend hours teaching artificial feeding against a casual attitude in discussing maternal nursing. The story is told of the Minneapolis demonstration which helped reduce infant mortality there from 81 to 65.

When one realizes that in many of our large cities 100 infants die during the first year of life for every thousand born, and that this perfectly unthinkable situation is accepted with equanimity by many sanitarians and laymen, one is forced to the unpleasant conclusion, that some very important element is lacking in the role that the physician plays, both as citizen and humanitarian. So many statistics have been compiled bearing on the question of infant mortality, that it is perfectly justifiable to present the conclusions, that can be drawn from them without including in these conclusions the figures upon which they are based. No one can attack on account of its extravagance the contention that the death rate among artificially fed infants is approximately six times as high as among the breast fed. Granting this, it is very difficult to comprehend the modern tendency for bottle feeding; and at times even more difficult to realize why so much opposition is encountered when an effort is made to correct so deplorable a situation. It may be appropriate to analyze a few of the reasons responsible for the large number of babies, that are not given the tremendous advantage as to health and resistance always allied with maternal nursing. As deplorable as it

may seem, the medical profession itself is probably more at fault in this connection than any other group, and among physicians in the highly specialized branches of obstetrics and pediatrics are found the worst offenders.

In education alone can be found the keynote whereby this situation can be corrected. In a consideration of this phase of the question, too much stress cannot be laid upon the importance of properly handling the problem in the medical school. The hours and hours that are given over to the teaching of artificial feeding, which even by the most intensive methods can never be successful unless they are followed by a tremendous amount of experience, stand out in striking contrast to the casual attitude, which is so frequently taken in discussing with students the advantages of maternal nursing. Men are graduated from our best universities who have never even seen a mother nurse her baby, and as far as having a knowledge of some of the difficulties of maternal nursing is concerned, they are one very potent cause of the so frequently unassailable position of the proverbial grandmother.

Several years ago in an effort to determine the percentage of mothers that

were nursing their infants, a questionnaire was sent out by one of us (J. P. Sedgwick) to a large number of medical men in various parts of the country. For practical purposes, there was not one in this entire group who had not striven to procure for his own children the advantage of breast feeding. About 80% of these mothers had succeeded in nursing an infant three months or longer. Nothing can be more striking evidence of the general attitude of the medical profession towards the subject of maternal nursing than these figures.

Granting the contention, which one would hardly dare to question in view of the data at our disposal, that the infant mortality is about six times as great among artificially fed infants during the first year of life as among the breast fed, how can the knowledge be made available to the laity, and its importance so emphasized that artificial feeding may be reduced to an extreme minimum.

During the past two years the problem has been attacked in Minneapolis in an effort to determine what could be accomplished in a large community, if all available agencies were utilized to get coöperation in every home. There was formed for this purpose what was called the Breast Feeding Investigation Bureau of the Department of Pediatrics of the University of Minnesota. When one realizes the enormous number of ramifications that must be considered in outlining a piece of work of this kind, it is easy to understand why absolute support of the entire medical profession is essential. Every physician in the city was written to, and was invited to visit the University, where the purpose of the Bureau was carefully explained. When it was not possible to communicate with the doctors in this way, representatives were sent to explain to them the details of the problem. Special emphasis was laid upon the fact that no physician engaged in private practice would be employed in connection with the work.

A card index of the physicians was maintained, on which any special desire of the doctor was recorded. If he wished his patients to be seen by the representatives of the Bureau, they were sent, or if he preferred to carry out the directions of the Bureau through his own office, the problem was attacked in this manner. After several months, a representative was again sent to all the physicians, asking whether the work of the Bureau was embarrassing them in any way, and urging suggestions which would under all circumstances prevent such embarrassment. The Municipal Health Department coöperated in every way, and the Infant Welfare Society gathered information wherever it was available. The support of the press was essential and was most heartily given. The expense for the year's study was about \$7,000 which was appropriated partly by the Graduate School of the University, partly by the "War Chest" and the balance was subscribed by individuals. The routine method followed by the Breast Feeding Investigation Bureau may for convenience be divided into three parts.

First. Reports were received daily from the Municipal Health Department giving the names and addresses of all newborn infants with the name of the attending physician or midwife. These data were immediately entered on cards for filing and reference.

Second. Every mother was visited usually within the first three weeks by a social service worker, at which time the so called "First Information" was obtained. This consisted of a brief history of the other children in the family, how long each one had been breast fed, and if the breast was discontinued before the ninth month, when and why. The same history was elicited concerning the newborn infant. This was entered upon a filing card, and if any difficulty in nursing was apparent, the Bureau immediately communicated with

the attending physician. With his permission the patient was visited promptly by a nurse and an effort made to correct existing conditions. At this visit the mother was informed that she would receive cards from the Bureau at regular intervals during the first nine months of her baby's life, stress being laid upon the importance of properly and promptly returning these cards.

Third. When the baby was six weeks of age and every month thereafter for nine months, there was mailed to the mother a card upon which was the following series of questions:

1. Is your baby still breast fed?
2. How often do you feed it?
3. Does it receive the breast only?
4. Are you having any difficulty nursing the baby?
5. If so, what?
6. If it is not breast fed, when and why did you stop? State how long the baby was breast fed.

A second call was made by the visiting nurse when the baby was two months of age. It was at this period that the most difficulty was encountered and that most mothers were inclined to be discouraged, so that tact and logic were frequently necessary to prevent weaning.

Only by intimate contact with a problem of this type can its difficulties be appreciated. In the first place one has the natural opposition of the medical profession that an effort is being made to undermine the position held in the family, that by subterfuge or otherwise sooner or later some hint will be dropped whereby the prestige enjoyed will be destroyed and the patient lost. When the physician considers further the great inability on the part of nurses to realize that there may be several excellent methods of solving a medical dilemma, and that their original teaching is not infallible, it can be more readily understood why he is so often skeptical.

Added to this is the large number of men who are poorly trained and who realizing their lack of knowledge are adverse to any agency entering the home, that may be in a position to realize their shortcomings. The public itself always assumes a questionable attitude toward a movement of this type. As odd as it may seem there is something about the so-called sanctity of the home, violation of which is always suspected by the laity if some new public health measure is suggested. Add to this suggestion a provision that affects the attitude of the mother toward her child, irrespective of how altruistic the motive may be, and there rises up in the hearts of many people an immediate objection, that can only be overcome by a tremendous amount of educational propaganda. This necessitates absolutely on the part of the nurses, who are carrying on the work, a degree of tact and diplomacy that is very difficult to find even in people who are specially trained for this type of problem. One trait in these individuals is indispensable. They must have a human interest that insures thorough loyalty at all times. Nothing can be less interesting day after day, week after week, than visiting mothers and trying to impress upon them the tremendous value of the problem. It is a strange fact but true, that human nature is adverse to taking expert advice at any time, and if this is given without a recompense, which, after all, is the only method the average layman has of measuring its value, there is always a great disposition to reject it and accept the proffered suggestions of a hundred absurdly ignorant neighbors.

It is interesting to note in the first place the class of women that have interested themselves in the work, and in the second place to analyze the tremendous enthusiasm that they have developed. One could quote from numerous communications showing the per-

severance and devotion that were necessary to accomplish results, and at the same time formulate an idea of the spirit and determination behind the efforts of these workers. As difficult as a problem of this sort is to start, and as many as the obstacles are that must be overcome in the beginning, just so contagious is the change in attitude which is subsequently developed when the results can be seen. Physician and layman alike are willing to cooperate when they realize how many lives can be saved, but in a type of work that requires months and even years for a tangible effect to be visible, there is always a corresponding delay in developing a proper enthusiasm.

The definite purpose of the Breast Feeding Investigation Bureau was to reach the mother of every newborn baby in Minneapolis, and after the confidence of the mother was secured, to educate her first in the value of breast feeding and, second, in the means whereby it could be continued. These methods were very simple. They consisted almost entirely in making continuous demands at regular intervals on the breasts, and in impressing upon the mothers the importance of properly emptying the breasts, particularly in cases where the babies were not vigorous enough to nurse properly on account of prematurity or some asthenic condition. This phase of the problem cannot be too strongly stressed. The failure to use the mammary gland regularly and completely is unquestionably the most common and most potent cause for its failure to function. It is not within the scope of this paper to enter into all the details of the technique and difficulties of breast feeding, but they play a most important part in insuring its success and should be carefully studied and understood by anyone entering the field of preventive medicine.

As uninteresting as figures are, they are the only means at our disposal for

studying this very fascinating problem. Analyzing the results of the investigation of the breast feeding of babies born in Minneapolis during the months of January, February, March, April and May, 1919, the following statistics are available.

1472 (72%) of the 2022 babies still under observation at the end of the ninth month were on the breast—leaving 27% of those babies on artificial food.

1631 (77%) of the 2113 babies still under observation at the end of the eighth month were on the breast—leaving 22% of those babies on artificial food.

1810 (80%) of the 2240 babies still under observation at the end of the seventh month were on the breast—leaving 19% of those babies on artificial food.

1992 (84%) of the 2355 babies still under observation at the end of the sixth month were on the breast—leaving 15% of those babies on artificial food.

2090 (86%) of the 2412 babies still under observation at the end of the fifth month were on the breast—leaving 13% of those babies on artificial food.

2250 (89%) of the 2505 babies still under observation at the end of the fourth month were on the breast—leaving 10% of those babies on artificial food.

2490 (93%) of the 2674 babies still under observation at the end of the third month were on the breast—leaving 6% of those babies on artificial food.

2761 (96%) of the 2847 babies still under observation at the end of the second month were on the breast—leaving 3% of those babies on artificial food.

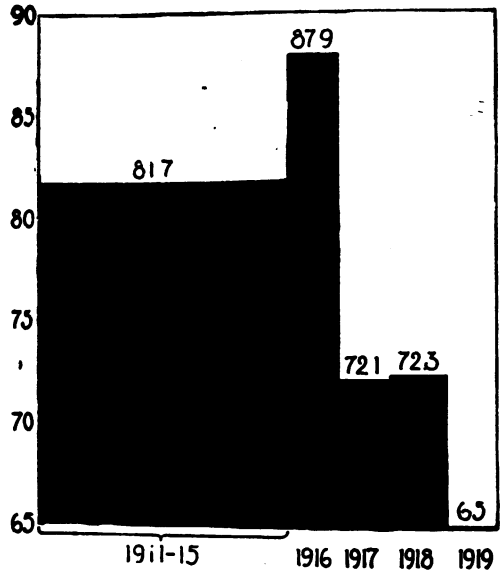
Naturally one must look for some tangible result from such startling figures, and that can very readily be found if the mortality rate of infants during the first year is studied. From 1911-1915 the infant mortality rate in Minneapolis was 81.7, in 1916, 87.9; in 1917,

72.1; in 1918, 72.3, and in 1919, the first year in which an intensive breast feeding campaign was carried out, the rate was reduced to 65. It is not necessary further to comment upon these facts. In a city with marked extremes of climate, the infant mortality has been reduced to a figure, which in view of what is found in most of our large cities, seems almost unbelievable. This work has now left the experimental stage and has been placed under the supervision of the Infant Welfare Society of Minneapolis, so that it may become a permanent institution.

When one considers the advances that have been made in public health work during the past two decades, it is, to say the least, strange that a more consistent effort has not been made to reduce the ravages among infants during the first year. Omitting the fairly large number of stillborn infants, no other cause plays so great a role as the diarrheal diseases, essentially due to artificial feeding. Granting that remarkable strides have been made in improving the character of the most common artificial food, cow's milk, one is struck by the fact that so little attention has been paid to the importance of so educating the public, that maternal nursing may be everywhere popularized and the empiricism of artificial feeding given proper condemnation. Public health agencies in the past have been inclined to delegate the responsibility of such problems to Infant Welfare Societies, and to neglect a duty which belongs definitely in

their domain. Were any of the communicable diseases to claim a toll at all comparable to that seen during the first year of life, every effort would be made by our health departments to combat the ravages of the individual disease, but in this all-important work they are satisfied to assume an attitude of silent complacency. It may seem extravagant, but

INFANT MORTALITY IN MINNEAPOLIS



well within the realm of reason to hope that in the future any measure tending to the reduction of infant mortality may not only be within the scope of Infant Welfare and Child Hygiene Societies, but a truly recognized function of the state.



Take Notice that the 1921 Meeting of the A. P. H. A. is set for November 14-18 in New York City. It will be a Great Occasion, the Fiftieth Annual Meeting, and Dr. Stephen Smith, the first President, promises to be there.