PROVIDING PRENATAL CARE FOR NECESSITOUS WOMEN IN A RURAL NEW YORK COUNTY

by J. WARREN BELL, M.D.,[1] AND REGINALD M. ATWATER, M.D., DR.P.H.[2]

A PROGRAM for providing prenatal care to women in the lowest income class in a rural community has been developed with considerable success during the past three years in Cattaraugus County. While many problems remain to be solved, it is believed that the experience gained in organizing this service in a typical rural county may be of interest to others.

An experiment with a public health program in the field of maternal and infant hygiene in Cattaraugus County was undertaken in 1931 as an outgrowth of the review of the services of the Health Department made in 1930 by C.-E. A. Winslow.[3] He pointed out that the work for mothers and infants was less completely developed than other parts of the program and suggested that, within the framework of this otherwise well-rounded county health program, an opportunity existed for developing an adequate service for prenatal care, which is a problem not yet solved satisfactorily in any rural area. At the invitation of the Cattaraugus County Board of Health, the Milbank Memorial Fund is cooperating with the Health Department in an effort to develop a maternity and infancy program for necessitous families along lines that draw upon the health and welfare responsibilities and fully utilize facilities provided in the New York State laws.

At the outset this special study project was focussed on the rural portions of the County where it was apparent that almost no public provisions were made for prenatal care to necessitous women. This situation prevailed in spite of relatively high ma-

[1]Director of the Bureau of Maternity, Infancy and Child Hygiene, Cattaraugus County Department of Health.

[2]Commissioner, Cattaraugus County Department of Health.

[3]Winslow, C.-E. A., D.P.H.: HEALTH ON THE FARM AND IN THE VILLAGE. New York, The Macmillan Company, 1930.

ternal and neonatal mortality rates, especially in the lower economic levels. It also prevailed in spite of generous legal provisions for public medical care as expressed in the Public Welfare Law of the State of New York, effective January 1, 1930. This law clearly placed responsibility for medical care on welfare officials "for all persons under their care and for such persons otherwise able to maintain themselves who are unable to secure necessary medical care."[4] It was apparent that, with increasing economic difficulty, a serious condition of social maladjustment existed in this field.

Although any pregnant woman on relief or unable to pay for medical care could apply to the local welfare officer for medical care, few knew of this legal provision and no routine procedure existed by which the County Department of Health might cooperate in bringing necessitous cases to the attention of the County Department of Welfare. To devise such a routine a series of conferences between members of the two departments concerned was arranged by the Bureau of Maternity and Infancy. The resulting technique provides that:

1. All indigent prenatal cases may make formal application for service through the Bureau of Maternity and Infancy, or the public health nurse, by signing a simple statement of her inability to pay for medical service and giving the time of expected delivery and name of physician of preference.
2. The public health nurse is to supply essential social information with regard to unemployment, income, assets, size of family, residence, et cetera, on the confidential exchange blank provided.
3. The Bureau forwards to the Commission of Public Welfare a request for prenatal care and medical service at delivery which is made out in triplicate. All three copies are sent to the Commissioner, but one is to be forwarded

[4]Public Welfare Law—Art. 10, Section 83.

to the New York State Temporary Emergency Relief Administration, and one to the welfare officer of the town in which the patient resides or has legal settlement.

4. Authorization to the physician for subsequent prenatal care and delivery may come only from the Department of Public Welfare. The Bureau of Child Hygiene is prepared to forward this authorization to the physician, retaining a memorandum for the Bureau files.

This arrangement has the advantage of providing a definite routine by which the Health Department, and more specifically, the public health nurse who most frequently comes in contact with necessitous pregnant women, may refer cases to the agency responsible under the law for providing medical care. Furthermore, it provides a channel for notifying the Department of Health when delivery service is authorized, and this information is very helpful to the public health nurse who may be carrying the case.

A prenatal medical examination by the physician of the patient's choice is authorized by the Bureau of Maternity and Infancy immediately upon receipt of the woman's request for welfare delivery service. A blank clinical record form is mailed to the physician which, when returned to the Bureau with the clinical findings, entitles him to a fee of five dollars. No prenatal clinics are held, one objective of the study being to determine the practicability of a prenatal service in a rural area carried on in the office of the private physician who is to attend the woman at delivery. The director of the Bureau does not himself make prenatal examinations except in consultation on the request of the physician. He is able, however, through personal contacts with the physicians to stimulate an interest in a high quality of service for these patients and the fee has been set at a level to encourage the physician to give his best attention.

This prenatal service has made it possible for the Health Department to initiate preventive medical supervision as soon as the

case becomes known. Through the report of the examining physician to the director of the Bureau, prompt and efficient attention to syphilis, toxemias, and other complications can be arranged. Experience with more than fifty physicians indicate that the majority of men in private practice will make and record a satisfactory prenatal examination. Knowledge that the record of their findings is to be reviewed by the director stimulates a high quality of service; and an improvement in the quality of prenatal service rendered the group of persons on a low-income level tends to encourage a correspondingly high type of service for other patients.

Continuous prenatal supervision for patients who have requested welfare delivery service is dependent on prompt authorization by the welfare official. By an agreement between the County Medical Society and the Department of Public Welfare, the physicians will give delivery care and three prenatal examinations for a fee of $25 for a normal case. A study of the 1933 cases showed that only three days elapsed on the average between the time the Bureau of Maternity and Infancy received an application and the notification of the Department of Public Welfare. However, the average time required for the Bureau to receive an answer from the Department of Public Welfare was sixty-three days.

Of course, a large number of women were confined between the time of their application and the time when the Welfare Department found it possible to take action. It is this long interval during which it is apparent that there is the best opportunity to reduce maternal mortality, stillbirths, and neonatal mortality through the application of scientific principles. These circumstances are illustrated by the experience of 1934 during which time eighty-four applicants received their prenatal examination through Health Department channels and in each instance the Department of Public Welfare was notified in the manner previ-

ously described. Of the eighty-four, delivery care was reported as authorized in only sixteen cases, additional but indeterminate reports having been received by the Department of Health in reference to three cases. The routine for authorization is thus seen to function satisfactorily for less than one-fourth of the applications. The sixty-one applications not as yet acknowledged by the Department of Public Welfare show valid medical reasons why such delay is exceedingly undesirable. The defect appears to be in slow response of the welfare officers rather than in the routine itself.

The majority of applications by pregnant women for medical service have been made through the Bureau of Maternity and Infancy, since the public health nurse is in contact with a very large number of child-bearing women in her district. Also, many physicians who consider their patients proper cases for medical relief have referred the patient to the Bureau. On the other hand, a number of applications are made direct to the local welfare officer, who does not at present notify the Bureau of the case. Consequently, these do not have the benefit of the prenatal service offered by the Bureau, and, when action by the welfare officer is delayed, they are deprived of all preventive prenatal service.

It is apparent that the quality of public medical service in the field of maternity and infancy is not satisfactory either to physician, patient, or public authorities. Local welfare officers, even if familiar with the authority provided by the Public Welfare Law, fail to avail themselves of it. As a result, physicians are being authorized late in pregnancy, if at all. Patients frequently have no knowledge of how to acquire the public service to which they are entitled, and a situation occurs in which a pregnant woman is deprived of prenatal care by the fact that she already owes unpaid delivery fees to each physician practicing in her area. Actual accounts of practicing physicians show that many physicians engaged by families for delivery service received little or no pay.

While it is recognized that the quality of service may not be entirely parallel to the increase in financial income for this service rendered by the physician, nevertheless it is apparent that the level of self respect for the medical practitioner can be raised by this device and that, when associated with some medical supervision of the records, there may be promoted a more intelligent and personalized interest in service to necessitous mothers.

Those who stand close to the experiment are confident that an effective way may be found to reach this especially important group of mothers and infants and indirectly to benefit other mothers and other babies, as well as the practicing physicians simply by providing a technique to implement the existing provisions of the Welfare Law. Among more than two hundred women who have had prenatal examinations at the expense of the Bureau of Maternity and Infancy and supervision from the public health nurse there has been no maternal death. Although this series of cases is too small to be entirely conclusive, there is no reason to believe that the application of scientific medicine along these lines will fail to duplicate this experience elsewhere.

PUBLIC HEALTH NURSING SERVICE FOR INFANTS

AN ANALYSIS OF SERVICES RECEIVED BY AN UNSELECTED SAMPLE OF INFANTS IN LOW-INCOME FAMILIES IN THE BELLEVUE-YORKVILLE DISTRICT OF NEW YORK CITY[1]

by MARIAN G. RANDALL, R.N.

A MAJOR problem for the public health nurse is how her services are to be distributed to the best advantage among the possible recipients of that service. Suggested standards for service to the individual case are set down, but in actual practice the nurse must make a compromise between reaching as many as possible of the individuals who have need of health supervision and advice, and providing the highest quality of service to the individual. Obviously, the problems of the family or individual with whom she has established a contact are vividly before her and the cooperation she may receive is a satisfying experience to the nurse. On the other hand, she has a community responsibility and must keep in mind the needs of those who may have had little or no service. Some effort to balance her program is made constantly by the nurse though she may not be wholly aware of the influences which shape her activities.

One type of evaluation of the nursing service in a community, therefore, is to determine to what extent services were spread among those in potential need and to consider the evidence that the amount of service given to individual cases indicates a well-planned distribution of the nurse's time. Some of the results of an analysis of this kind of the public health nursing service rendered to infants in the Bellevue-Yorkville District of New York City are presented in this paper.

THE SAMPLE OF INFANTS STUDIED

This study is based on data which include records of the service provided by any health agency, public or private, to every

[1]From the Milbank Memorial Fund.

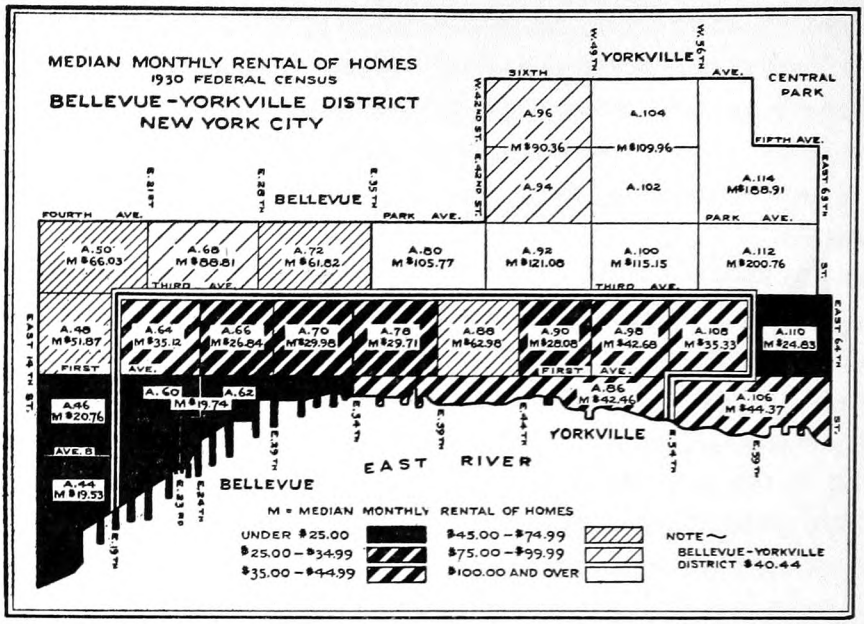

Fig. 1. Median monthly rental of homes in the Bellevue-Yorkville District, New York City, based on the 1930 Federal Census. The area outlined by triple lines indicates the section used for the special study of infant health services. Population of the area, 74,000.

infant born between July 1, 1931 and June 30, 1932 within a selected area of the Bellevue-Yorkville District in New York City.[2] The area selected for study is indicated in Figure 1, which also shows the median rental in 1930 of each of the sanitary areas included. Obviously this is predominantly a poor district. The homes are in four- or five-story tenement buildings, many of which are so close together that the middle rooms of the so-called "railroad" apartments are either windowless or receive practically no light from small windows on dark courts. While all of the tenement buildings have running water, many of the low-rental apartments are "cold-water flats" with bathroom facilities in the hall to be shared by all families living on that floor.

Nine hundred and sixty-eight births were registered at addresses

[2]If the address indicated that the family lived in one of the higher-priced modern apartment houses, it was omitted from the study, which was restricted to families of low income.

in this district, exclusive of the better type apartment houses. An immediate effort was made to visit the homes upon receipt of the record of a birth and at least one visit was made by a special investigator to the home of each of the 779 infants who constitute the sample for this study.[3] Families were revisited every three months and considerable data were collected from the mothers on the health of the infant and on the amount of medical care or other health supervision received.[4] The records from the Health Department and from private health agencies in the district were carefully checked to complete the information, and observations were made of the nurses at work in both home and clinic.[5]

Economic Status. Information obtained from the family concerning income indicated that only thirteen of the 779 families with infants had as much as $2,000 per year, as is shown in Table 1. There seems little doubt that the 351 families, or 50 per cent of the sample, classed as very poor were unable to provide medical supervision for themselves. Further evidence of this is revealed by an analysis which shows that nearly half of these very poor families had six or more members, and a fourth of the fathers in this group were unemployed the entire year. Thus, in addition to the type of home generally encountered in this neighborhood, the low incomes reported indicate that all the infants in this sample were born into families needing some educational service and some advice and assistance in obtaining preventive

[3]No information was obtained for 172 infants: 100 were not found, thirty-three of whom were reported by neighbors as moved (in order to obtain hospital care for delivery, patients often give a false address or live for a short time with friends or relatives); seventy-two were born in a Home for Unmarried Mothers (women from any section of the City are accepted for delivery and babies are cared for until adopted or taken by mothers). In addition there were eighteen infants who died before leaving the hospital, who are not included in this analysis of public health nursing services.

[4]These data were from the special investigation of maternity and infancy care in the Bellevue-Yorkville District, carried on by Miss Dorothy Wiehl of the Milbank Fund staff.

[5]Grateful acknowledgment is made to the personnel of the Health Department and private agency staffs whose cooperation in obtaining the information was of great assistance in assembling these data.

services and in keeping their babies well, although the need for intensive service might vary. As might be expected, over a third of the total sample of families received some aid in addition to medical services from one of the public or private relief agencies in the district. Several other families reported that friends or relatives were helping them buy food or pay rent.

Table 1. Yearly income of families with infants in an area of Bellevue-Yorkville District, New York City.

Income	Families with Infants Reporting Each Stated Income	
	Number	Per Cent
TOTAL	702[1]	100.0
Moderate+		
$2,000 or more	13	1.9
Moderate –		
$1,999-$1,400	120	17.1
Poor		
$1,399-$800	218	31.0
Very Poor		
Less than $800	351	50.0

[1]Excluding 77 families for whom the income was not stated.

Nativity of Mother. The mothers of half the sample of infants were foreign-born, and of this group the largest number (one-third) were born in Italy and the next largest number (20 per cent) were born in Ireland. Thirty-six per cent of the mothers were native-born of foreign-born parents and in this group, also, Italy and Ireland were the countries most frequently represented. Only 14 per cent of the mothers were native-born of native parentage.

THE AGENCIES GIVING INFANT HEALTH SUPERVISION

When the health demonstration sponsored by the Milbank Memorial Fund was undertaken in the Bellevue-Yorkville District, it was arranged for many of the health and social agencies to be housed in the Health Center on East 38th Street. This assisted in bringing about cooperation and preventing duplication of effort. Other agencies not housed in this building also participated in the general program for the district through frequent group conferences of the representatives of most of the district agencies.

The Official Agency. The emphasis of the Health Department infant program is put upon the services offered in well-baby

clinics. There are three such clinics in the district. A physician examines the babies and both the doctor and Health Department nurse advise and instruct the mother in the routine care to keep the baby well. These well-baby stations are not treatment clinics, and sick babies are supposed to be referred to a private physician or to one of the pediatric clinics in the hospitals located in the district. There were five hospital pediatric clinics in the district at the time of this study.

The Health Department nurses also make home visits to learn of home conditions, to explain the need of and urge regular medical supervision at a clinic (or by a private physician if the family can afford it), to assist the mother in carrying out a clinic recommendation and to give any further instruction needed in the care of infants. The *Manual of Instructions* for the New York City Department of Health nurses states that: "Babies under one year should be supervised in the home or the station every two weeks, but preferably at the station so that the babies may be weighed." Since it is an official agency, this service is theoretically set up for all babies, but in actual practice there is a selection of cases who receive Health Department service.

Private Agencies. Perhaps no other section of New York City has more private agencies concerned with health and welfare than the district known as Bellevue-Yorkville. These include the Maternity Center Association and the Henry Street Visiting Nurse Association, both of which give bedside nursing care in the home to the mothers and newborn infants and advise registration at the well-baby clinics, Henry Street also giving care for illness; the New York Diet Kitchen Association, which conducts an infant clinic; Prescott Memorial and Chapel of Incarnation infant clinics; and a few small private groups interested in infant welfare.[6] Since these are private agencies they can select or limit

[6]Cooperation and service are also given by the City welfare organizations, the
(Continued on page 190)

the cases they serve according to their policies, but in general they serve the people of the district and if necessary to refuse service they refer the family to another agency.

SERVICES RECEIVED BY THE INFANTS

Volume of Service. During the period of the study, a total of 4,272 home visits for infant welfare was reported by the official and voluntary agencies (Health Department, 1,276 and private agencies 2,996), the 622 infants visited by one or more agencies having an average of 6.8 visits per infant. In addition, a total of 5,666 clinic visits was recorded (3,335 at Health Department well-baby clinics and 2,331 at private agency clinics). The 484 babies who attended clinics had an average of 11.7 clinic visits per infant. The Appraisal Form for City Health Work standard is six home visits and five clinic visits per infant registered.

Age at First Contact. The age of the infant when health supervision begins not only tends to influence the amount of service he may receive but is an index of the quality of service given in the community. If the teaching of modern methods of infant care is responsible for some of the reduction of infant mortality, the value of the health services can be increased as they are made available in the earliest period of the infant's life, when the incidence of death is highest. This qualitative measure is shown in Table 2. Fifty-two per cent of the babies born at home had a contact with one of the health agencies in the first week of life. For hospital births (69 per cent of the total sample), three-fourths of the babies had had contact with a health agency before they were a month old. That there was an opportunity for beginning health supervision in the first month of life for 74 per cent of this total sample of infants is a commendable record.

Maternity supervision is an important factor in obtaining early

Association for Improving the Condition of the Poor (A.I.C.P.), Charity Organization Society, Catholic Charities, and several other groups. The health of the infant frequently depends upon assistance from one of these social agencies.

Age of Infant at Time of First Contact	Total Infants		Place of Birth			
			Hospital		Home	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
ANY AGE	774[1]	100.0	532	100.1	242	100.0
Under one week	154	19.9	29[2]	5.5	125	51.6
One week	172	22.2	152	28.6	20	8.3
Two weeks but less than one month	249	32.2	214	40.2	35	14.3
One month	66	8.5	43	8.1	23	9.5
Two months	26	3.4	19	3.6	7	2.9
Three months or over	18	2.3	11	2.1	7	2.9
No supervision	89	11.5	64	12.0	25	10.3

[1]Excluding 5 infants for whom the date of first contact was unknown.
[2]Visited in hospital by nurse from a private agency.

Table 2. Age of infants at time of first contact with health agencies in Bellevue-Yorkville District, New York City.

infant supervision. Nearly half of the mothers (47 per cent) received some prenatal supervision from Henry Street Visiting Nurse or Maternity Center Associations continuing through the postnatal period and including care of the infant. Since the services of the private agencies were considered adequate, maternity service is not included in the Health Department nurses' generalized program in this district.

Age at First Clinic Attendance. One objective of the nursing program is to assist in accomplishing early and continuous medical supervision. The age at which clinic supervision begins is also a qualitative measure indicating the opportunity afforded to give medical supervision early enough to prevent the development of malnutrition and other conditions, and increasing the opportunity to give continuous supervision throughout the infant's first year of life. As shown in Table 3, 167 of the 490 infants (34 per cent) attending clinic were registered before they were a month old. And, as indicated by the cumulative per cents, nearly three-fourths of the babies (72 per cent) were registered before they were two months old.[7] But while 66 per cent of the infants in

[7]There were no significant differences in age at registration for the infants who attended Health Department or private agency clinics.

low-income families had some supervision from clinics, it must not be overlooked (as Table 3 shows) that 34 per cent did not attend clinic.

There is evidence of the influence of early home supervision upon early clinic registration. The private agency nurses who give newborn infants home nursing care advise mothers to register babies promptly at one of the infant clinics in the district. Those who had this early home supervision from private agencies comprise nearly two-thirds of the group registered in the clinics in the first and second months of life.

Distribution of Service to Individual Cases. The opportunity for giving health supervision to individual babies is indicated by the number of clinic or home visits they receive. The study of the distribution of services is based upon those who have completed the first year of life, and lived in the area the entire time, giving an equal opportunity for service.[8] For such a group of 491

Table 3. Age of infants at time of first attendance at baby health clinics in Bellevue-Yorkville District, New York City.

Age at First Clinic Attendance	Infants First Attending Clinics at Specified Age		
	Number	Per Cent	Cumulative Per Cent
ANY AGE	490	100.0	
Under one month	167	34.1	34.1
One month	184	37.6	71.7
Two months	62	12.6	84.3
Three to six months	60	12.2	96.5
Six months to one year	17	3.5	100.0
Total infants	738[1]	100.0	
No clinic attendance	248	33.6	
Attended clinics[2]	490	66.4	

[1]Excluding 12 infants who left the district before they were two weeks old and 29 infants who first attended hospital pediatric clinics but age of first visit is unknown.
[2]Including Health Department Well-Baby Clinics and Infant Clinics sponsored by private agencies.

[8]There were 283 infants classified as discharged. The nineteen babies who died in the first year of life and the 230 who moved did not complete the first year of life in the district. Ten attended clinic outside the district, four were in a day nursery, two were in hospitals most of the year, three mothers refused supervision, and the others for various reasons were out of the district considerable time during the year, eliminating the opportunity for continuous supervision.

infants, the distribution of total home visits, total clinic visits, and Health Department services describes, in the following paragraphs, this phase of the actual experience in carrying out the health program of the area.

Distribution of Home Visits. There were fifty-two, or 11 per cent, of the infants visited once during the year, 102, or 21 per cent, who received from two to five visits, and 268, or 55 per cent, who had six or more visits. This includes home visits by both official and private agencies.[9] The private agencies give frequent newborn care visits and two-thirds of the infants who were in the group receiving six or more total visits had this early supervision. Two hundred and seventy-one (55 per cent) infants were visited by more than one agency, and 66 (14 per cent) received no home visits from any public health nurse.

Distribution of Clinic Services. Using as a standard the Health Department policy of "supervision every two weeks, preferably in the Baby Health Station," the distribution of clinic visits was analyzed according to the age of the infant at registration. For example, if a baby first attended a clinic in his tenth week of life, the standard would call for twenty-two clinic visits in his first year. For purposes of this analysis, if this baby actually attended twenty-six times, it would be classed as plus 4; or if he attended eighteen times, as minus 4, by comparison with the standard. This is shown in Table 4 for the infants who attended both private agency or Health Department clinics. There were twenty-two infants who had ten or more visits over the standard, and these babies had a total of 774 clinic visits, which was an average of thirty-five visits per infant and constituted 14 per cent of the total clinic service given for this group. At the other end of the scale, one-third of the babies received ten or less visits below the standard. This group received an average of eight visits per infant,

[9]Including visits for newborn care but excluding morbidity service given later in the infant period.

Number of Clinic Visits as Compared with Standard[1]	Infants Attending Clinics[2]		Clinic Visits		Average Visits per Infant
	Number	Per Cent	Number	Per Cent	
TOTAL	484[3]	100.0	5,648	100.0	11.7
10 or more over standard	22	4.5	774	13.7	35.2
9–5 over standard	24	5.0	733	13.0	30.5
4 over —4 under standard	81	16.7	1,727	30.6	21.3
5–9 under standard	74	15.3	1,139	20.2	15.4
10 or less under standard	160	33.0	1,275	22.5	8.0
No visits	123	25.4			

[1]Based on age of infant at time of clinic registration and the Health Department policy of clinic attendance every two weeks in first year of life.

[2]Includes Diet Kitchen, Prescott Memorial, and Chapel of Incarnation Clinics and three Health Department Well-Baby Stations.

[3]Excluding 7 infants for whom the date of registration or number of visits was unknown.

Table 4. The attendance at baby clinics in Bellevue-Yorkville District, New York City, by comparison with a standard for frequency of clinic visits, for infants who had completed their first year of life in low-income families.

which is considerably higher than in many cities. And yet 25 per cent of the infants had no clinic supervision.

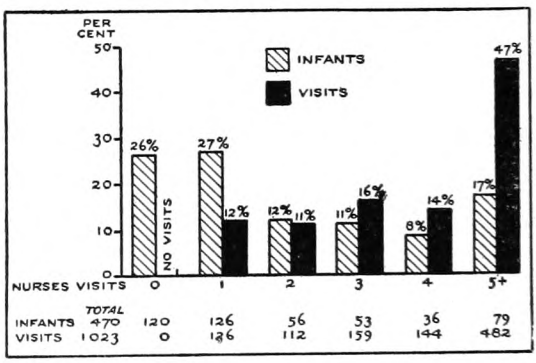

Fig. 2. Distribution, according to the specified number of visits, of the total home visits by health department nurses compared with the total infants who received these visits during the first year of life. For example: 26 per cent of the infants were not visited; 11 per cent were visited twice, which constituted 12 per cent of the visits; 17 per cent had five or more visits, which added up to 47 per cent of the total visits.

Distribution of Health Department Services. Since the administration of the health program is usually related to the official agency, further discussion of distribution of services may be appropriately confined to Health Department activities. The distribution of total visits by Health Department nurses and the distribution of the total infants who had completed the first year of life are illustrated in Figure 2, showing that:

26 per cent of the infants were not visited

27 per cent of the infants received one visit which constituted 12 per cent of the total visits

17 per cent of the infants were visited five or more times which added up to 47 per cent of the total visits

The knowledge of how visits are distributed might suggest to the nurse that some of the 47 per cent of the visits could be more profitably given to some of the infants in the "not visited" group.

From the records of the Health Department baby clinics an analysis of the distribution of clinic visits shows (Table 5) that 49 per cent of the infants had no supervision while 7 per cent had 35 per cent of the total clinic service.

In this distribution of both home and clinic visits, twenty-one infants not served by the official agency were excluded, because for these infants there were records in the Health Department showing that supervision was being given by private agencies. If the nurse knows and records the fact that other agencies are assuming responsibility for the health of an infant, it may be considered equivalent to giving care and crossed from her list. This illustrates a most important point, namely, that it is the

Table 5. Distribution of visits to Health Department baby clinics for an unselected sample of infants who had completed their first year of life, in low-income families, in Bellevue-Yorkville District, New York City.

Number of Clinic Visits	Number of Infants Having Each Amount of Clinic Service	Total Visits to Clinic	Per Cent of Infants Having Each Amount of Service	Per Cent of Total Service
TOTAL	470[1]	3,335	100.1	100.0
None	232	0	49.4	
1–4	43	102	9.1	3.1
5–9	46	322	9.8	9.7
10–14	52	627	11.1	18.8
15–19	30	495	6.4	14.8
20–24	29	626	6.2	18.8
25–29	17	458	3.6	13.7
30+	21	705	4.5	21.1

[1]Excluding 21 infants for whom there was a record in the Health Department of supervision from other agencies in the district.

responsibility of the official agency to plan for the distribution of health services. It does not mean that the official agency must actually render all the service, but know what is being done.

For a sample of 125 infants who received some supervision from a private agency in the district, there was a record in the Health Department for twenty-five, or 20 per cent, showing that another agency was giving care. The cooperation of agencies is successful to the degree that it plans for the services of all the people who need them, and this actual infant service illustrates a practical application of cooperation.

Immunizations. Since an objective of the program of nursing supervision is to assist in securing immunizations, the actual use of preventives is also one measure of results. It is of interest to find that 39 per cent of the infants who completed the first year of life had received protection against diphtheria. For the infants who attended clinics 49 per cent were immunized, but only 15 per cent of those who did not attend clinics received protection. Seventy-three babies (15 per cent) received vaccination against smallpox.

While cod-liver oil is not actually classed as an immunization, it was regularly advised in the infants' diets, and may be used as an indication of a desirable result of health supervision. Information from the mothers at the time of the investigator's home visits revealed that 189 of the infants (38 per cent) had cod-liver oil at some time during the year, but twenty of these had it less than two months.

Illness. Information from the family revealed that 127 infants had no illnesses. The remaining 364 infants had one or more illnesses in the first year of life. Some of these were only slight disturbances, so that sicknesses reported were tabulated as major or minor illnesses.[10] In Table 6, the incidence of illness is represented by a total of the two most important illnesses reported for

[10]This arbitrary grouping is also based on the record of severity of the illness. When

(Continued on page 197)

Type of Care Received[1]	For 589 Illnesses		For 296 Major Illnesses		For 293 Minor Illnesses	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Private physician	98	16.6	64	21.6	34	11.6
Hospital	48	8.1	37	12.5	11	3.7
Hospital clinics	73	12.4	45	15.2	28	9.5
Health Dept. baby clinics	320	54.3	134	45.3	186	63.5
Home visits Henry Street nurse	57	9.7	35	11.8	22	7.5
Home visits Health Dept. nurse	14	2.4	3	1.0	11	3.7
No care	31	5.2	18	6.1	13	4.4

[1]Each type of care as here used is mutually exclusive.

Table 6. The extent of different types of care received for the illnesses that occurred in the first year of life for a sample of infants in Bellevue-Yorkville District, New York City.

each infant. The extent of care received is shown in this table, each type of service as here given being mutually exclusive. In other words, an infant may be included in one or more of the classifications.

When it is remembered that the infants are all in low-income families, it is of interest to find that 22 per cent of the major illnesses had some supervision from private physicians. Most of the hospital care was given at City hospitals. The Henry Street Association does not refuse home nursing service if the family cannot afford to pay for care. Since the Health Department nurses do not give morbidity care most of the cases they visited were communicable disease or sickness which the nurse found when visiting the home for another reason. The large number of illnesses given some advice at the Health Department clinics is not surprising when it is remembered how often many of the infants attended clinic. The mother returned when the baby was sick,

of relatively slight duration and severity, such illnesses as vomiting, cough or cold, red throats, skin rash, stomach upset, and the like were classed as minor; while intestinal disturbances, acute respiratory, communicable disease, acute ear conditions, and the like were classed as major illnesses.

the clinic physician advised her of some immediate care necessary and often referred her to another service. The services are listed independently, not showing which of the major illnesses advised at the Health Department clinic were also given service from a hospital or private physician. The fact remains, however, that frequently service was sought from the well-baby clinics when the babies were ill.[11]

Table 7. Extent to which health services were received by infants who had completed the first year of life in low-income families of Bellevue-Yorkville District, New York City.

Services Received	Infants Receiving Each Specified Service	
	Number	Per Cent
TOTAL	491	100.0
No public health service	31	6.3
One or more services	460	93.7
Agency giving service		
Health Department	380	77.4
Private Agencies	352	71.7
Type of Service		
Infant clinics		
Health Department clinics	256	52.1
Private Agency clinics	144	29.3
Hospital pediatric clinics	104	21.2
Home Visits		
Health Department nurses	349	71.1
Henry Street nurses[1]	108	22.0
Maternity Center nurses	193	39.3

[1]Excluding visits for morbidity service.

Extent of All Health Services. A summary of the foregoing analyses for the total sample of infants who completed the first year of life is shown in Table 7. It illustrates the extent to which these infants received the different types of services available in the district. As given here an infant may be in one or more of the groups. In fact, over a third of these infants received services from both public and private agencies. It is significant to find that there were only thirty-one babies (6 per cent) who had no health supervision in this district where so many services were available.

Infants Who Had No Supervision. Fifteen of these thirty-one infants were born in hospitals, and the other sixteen at home. A physician attended all births, and all were reported normal. As classified within the total low-income group, ten were in rela-

[11]Infant mortality will be discussed in another paper.

tively moderate economic circumstances, twelve were poor and six very poor. Seven of the mothers were primipara. Four of the infants were immunized against diphtheria by private physicians, and two were vaccinated for smallpox. There were twenty illnesses in the group, nine of which had some service from a private physician. In the families of eight of these infants, another member of the family received some service from the Health Department, and a nurse visited the school child in five of these homes.

SUMMARY

An analysis of the public health nursing services for a sample of infants born in a low-rental area of Bellevue-Yorkville District of New York City shows that the public and private services were extended to all but 6 per cent of the infants in these low-income families.

The facilities of the private health agencies added to those of the Health Department make an unusual amount of service available in this district, but over a third of the sample of infants had an amount of service in excess of the most liberal standards.

Undoubtedly some infants need frequent supervision but there is need for a careful selection. As shown in this study, 17 per cent of the infants had 47 per cent of the total home visits and 26 per cent of the infants were not visited. If the nurse knows how her services are being distributed, it would suggest that a visit to the infants in the "not visited" group might be substituted for some of the repeated visiting to the infants receiving such a large proportion of the available service. The same principle applies to clinic services. Forty-nine per cent of the infants did not attend clinics and 7 per cent of the infants had 35 per cent of the total clinic service.

Supervision in the home for the newborn infant is a factor in obtaining early clinic registration. In using this information, the Health Department nurse might decide that one early home

visit to as many as possible of the newborn infants might be more productive for a greater number in insuring early clinic supervision than repeated visits to a limited number of infants in the community.

The age of the infant at the time of first supervision is a qualitative measure of health services. For the sample of infants studied there is the commendable record of 74 per cent having some health supervision in the first month of life.

In this analysis the reports of services received show an unusual record of extent and amount of health supervision for some infants. By careful planning for the distribution of the available services it would be possible to give a more equal opportunity for all infants who need it to have health supervision and to reach the small number in the low-income families who have not yet received supervision.

Since births are reported and the Health Department has access to copies of these reports, case-finding, theoretically, is no problem in infant health work. Practically, it means that, especially in low-income districts, every birth must be followed up and then classified according to need for service.

The official agency should assume the responsibility for all infants until they know and record that health supervision is being received from some other source.