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PART XCVII.

PRESIDENT'S ADDRESS,

INFANT MORTALITY AND THE NOTIFICATION OF BIRTHS ACTS, 1907, 1915.

BY WILLIAM LAWSON, LL.D., President,

[Read November 15th, 1917.]

INTRODUCTORY.

This subject was referred to in a paper on "Child Life as a National Asset," read before the Society by Mr. Shannon Millin on December 17th, 1915, but as a good deal of information on the subject was forthcoming from England and Scotland, which might assist the working of the Notification of Births Acts in Ireland, and throw light on the methods adopted for the protection of Infant Life, I was asked to give the Society the benefit of my investigations.

The time for a discussion on the subject was not inopportune, inasmuch as Sir Mathew Nathan, then Under Secretary to the Lord Lieutenant, announced at a meeting of the Infant Aid Society, held at the Mansion House on February 10th, 1916, that a grant of £5,000 for the welfare of children in Urban Districts in Ireland had been included in the Estimates to be laid before Parliament. Sir Mathew Nathan on that occasion urged co-operation between the voluntary agencies of the Infant Aid Society and the Women's Health Association, and the Public Health Department of the Dublin Corporation.

The War is still with us, but the great loss of adult life caused thereby makes it the more incumbent on us to do what we can to protect the infant life we have.

Notification of Births Act, 1907 (7 Ed. 7, c. 40), Huddersfield.

The credit for the origin of this Act (which is entitled "An Act for the early Notification of Births") is due to the Corporation of Huddersfield, and their energetic Medical Officer of Health, Dr. S. G. Moore, who introduced into a Bill presented to Parliament in the year 1906 by the Corporation of that Borough, which Bill became the Huddersfield Corporation Act, 1906 (6 Ed. VII. c. lxxxiii. loc. and pers. s. 73), a clause providing for the notification of births to the Medical Officer of Health within forty-eight hours after birth, and authorised a payment of one shilling to be made by the Corporation to the person giving the notifi-The Act received the Royal Assent on July 20th, cation. 1906. The duration of the section was limited to five years. Dr. Moore's report (October, 1910) on the working of the section shows how successful it was. The payment of one shilling ensured a large percentage of notifications; e.g., during the period from November 1st, 1906, to July 2nd, 1910, 7,764 births were notified in accordance with the requirements of the section, being 93.51 per cent. of the total births known to have occurred in the Borough. Comparing the three years 1907-8-9, during which the section was in operation in Huddersfield, with the thirty years preceding it appears that the Infant Mortality figure in thirty-three large towns in England, of which Huddersfield was one, was substantially less than it was before.

Some of the reduction was to be ascribed, Dr. Moore says, to favourable climatic conditions, but part of it resulted from the activity against the causes of infantile deaths, which had been notable throughout the whole country, and in which activity it was commonly acknowledged Huddersfield led the way. The percentage of improvement ranged from 5.2 in Swansea to 18.4 in Birmingham, 22.3 in Lincoln, 24.9 in Leeds, and 33.8 in

Huddersfield and Halifax.

The figures for the three years 1907-8-9 in Huddersfield were 97, 112, and 96, compared with 154, the average for the previous thirty years. The corresponding figures for Dublin (as given in the Table set out in Mr. Millin's paper) were 156, 146, 141. When the Huddersfield Bill was before a Committee of the House of Commons two members of the Committee suggested that the clause was worthy of the consideration of the Government, and in sanctioning it the Chairman said: "We hope that the experiment to be tried in Huddersfield will have such material

benefit upon Infant Mortality that there will be no going back in the matter." The figures given in the Report make it apparent that the hope of the Chairman was realised.

The Huddersfield clause was made the basis of general legislation for the United Kingdom by the Act of 1907, which, however, only came into operation when it was adopted by a local authority with the consent of the Local Government Board. It substituted thirty-eight hours for forty-eight hours, within which notification must be made, and it specifically required still births to be notified. It did not authorise payment of any sum for notification.

Section 3 of the Act authorised the Local Government Board to put the Act in force in the area of any local authority, if the Board thought it expedient, although it had not been adopted. It is important to observe that the object of the Act was to provide for the earlier notification of births, i.e., sooner after the birth of the child than is required by the Act for the Registration of Births, namely, forty-two days, and the notice is to be given in writing (which may be by letter or postcard) to the Medical Officer of Health at his office or residence. The duty of giving notice under a penalty is put upon the father of the child, if residing in the house where the birth takes place, and any person in attendance on the mother at the time of or within six hours of the birth. As the Huddersfield Corporation could not expect to get an extension of time for their clause they adopted the Act of 1907 on the expiry of their own special powers. The Huddersfield figures for 1910-1916 are as follows:—1910, 99; 1911, 132; 1912, 97; 1913, 103; 1914, 112; 1915, 108; 1916, 102.

Dr. Moore says that the cause of the infant mortality figure reaching 132 in 1911 was probably the hot summer, in fact, meteorlogical conditions, which in the absence of the special work in Huddersfield would have caused an infant mortality of 180 or so.

I take the following from his Report for 1914:—" Before the special work against Infant Mortality was undertaken in Huddersfield the mean Infant Mortality Rate for the years 1877 to 1904, inclusive, was 156. The mean from 1905 to 1914, inclusive, is 110, a reduction of 29.5 per cent. The saving of life on the above figures is accordingly 46 per 1,000 children born."

The Report shows by diagrams the reduction in the Infant Mortality Rate year by year and the diseases which caused the principal amount of Infant Mortality during the

year. A diagram is given, which shows that the two principal causes of deaths are premature birth and bronchitis, followed closely by pneumonia and convulsions, and in conjunction with two well-known facts teaches an important lesson. "Deaths of infants from bronchitis and pneumonia are absent from the death returns in warm Deaths of infants from diarrhoa are absent from These facts clearly show the returns in cold weather. that such deaths come to infants from outside. Infants can be, ought to be, and must be, protected from the outside influences which come to them and destroy them Why is this not done? One need only pass along the streets at night in winter time to actually see infants being killed. At all hours they are out with their parents in all weathers. For so long as public opinion permits such improper exposure of these helpless little ones. for so long will this lamentable mertality persist."

The Act was largely adopted in England and Scotland, but in Ireland only in Dublin and Belfast. The Act presupposes that the local authority adopting it has in contemplation, if not in operation, a scheme for the care of mothers and children, in order to reduce the mortality amongst infants, and to improve the health of mother and child, and puts the Medical Officer of Health in touch, earlier and easier than could otherwise be done, with those mothers and infants who require to be visited and cared.

DISTINCTION BETWEEN REGISTRATION AND NOTIFICATION

Sir B. Mallet, Registrar-General, in his Address as President of the Royal Statistical Society, delivered on November 21st, 1916 (Journal, Vol. lxxx., Part I., January, 1917, p. 15), calls attention to the inordinate time allowed by the present law for birth registration, nominally forty-two days and actually three months. He is of opinion that the Notification of Births Act, though highly beneficial from the point of view of infant life preservation, has not been an unmixed blessing to registration. Cases occur when notification is mistaken for registration, and others in which registration is unduly delayed because notification has already taken place, and the effect upon registration of births has been represented to him as serious by some "Both from the point of view of the conauthorities. venience of the public and of accurate record it would be much more satisfactory that one act only should be required of the parent, and that accelerated birth registration should be combined with an immediate notification to the registrar

of the fact of birth by the dector or midwife. doctor or midwife in attendance on a birth were required to notify the registrar of the fact forthwith and the registration were made compulsory within ten days, there would be an effectual check on registration and ample opportunity for such steps being taken as were deemed necessary for the case of the child." He also suggests that if there is any revision of the administrative provisions for the registration of births, deaths, etc., that the Medical Officer of Health should be made the official responsible for such registration, instead of a local registrar appointed by the Board of Guardians. As it has been found necessary to duplicate the information required concerning births by instituting a system of notification to the sanitary authority in addition to registration, it seems obvious, he says, that registration of births should be carried out by the authority which requires the information and has the greatest interest in obtaining it efficiently.

Notification of Births (Extension) Act, 1915, (5 & 6 Geo. V., c. 64).

This Act was passed on July 29, 1915. It is entitled "An Act to extend the Notification of Births Act, 1907, to areas in which it has not been adopted, and to make further provision in connection therewith for the Care of Mothers and Young Children."

Section 1 provides that the Act of 1907 shall, after September 1st, 1915, extend to and take effect in every area in which it is not already in force, but in Ireland Rural Districts are excepted (S. 3 (2) (c), and the expression "Medical Officer of Health" means a Medical Superintendent Officer of Health when there is such an officer, and elsewhere the Medical Officer of the Dispensary District.

The provisions of the Act of 1907 are to be brought to the attention of all Medical practitioners and midwives practising in the area, if that Act is not already in force therein.

Section 2 deals with arrangements for attending to mothers and young children. The provision as regards Ireland is as follows: "Any local authority within the meaning of the principal Act (i.e., the Council of a Borough or of an Urban District) may make such arrangements as they think fit, and as may be sanctioned by the Local Government Board for Ireland, for attending to the health of expectant mothers and nursing mothers, and of children under five years of age "(S. 3 (2) (b)).

An identical provision is made as to Scotland, adding the words "within the meaning of the Education (Scotland) Act, 1908."

The expenses incurred in the exercise of these powers are to be defrayed in the same manner as expenses of the local authority are defrayed under the Act on 1907, i.e., as part of the expenses of that authority in the execution of the Acts relating to Public Health.

Any such powers may be exercised in such manner as the authority direct by a committee or committees, which shall include women, and may comprise, if it is thought fit, persons who are not members of the authority. Any such committee may be empowered by the authority to incur expenses up to a limit for the time being passed by the authority, and, if so empowered, shall report any expenditure by them to the authority. Such committee shall hold office for such period not exceeding three years as the authority may determine.

In June, 1916, a Circular Letter was addressed by the Local Government Board for Ireland to Urban Sanitary Authorities inviting the preparation of Schemes and suggesting the lines on which they should be drawn, and the conditions under which participation in the Grant of £5,000 could be obtained. Schemes for 24 Urban Districts have been approved by the Board.

DUBLIN.

The Scheme adopted by the Dublin Corporation and approved by the Board is contained in a Report of the Public Health Committee dated September 12th, 1916. By this Scheme the Infant Aid Society is to have charge of the visiting of the homes of the people, subject to the supervision of the Public Health Committee and its officers, whilst the Women's National Health Association's activities in relation to the work of the Babies' Clubs are to be utilised in a similar way. £550 is to be granted to the Infant Aid Society for Health Visitors specially trained, drugs, etc., and £50 for other expenses.

The Society is to appoint the Health Visitors, subject to the approval of the Public Health Committee. £350 is to be granted to the Women's National Health Association for the payment of specially trained nurses in connection with the Babies' Clubs, and £50 for office expenses.

The total grants amount to £1,000, of this £500 is to come from the rates direct and £500 from the Treasury.

The work of the Babies' Clubs is to be on the following lines:—

(a) Infant Consultations conducted by a Doctor, held at least fortnightly.

(b) Classes for Mothers held weekly, conducted by

Doctors and Nurses.

(c) This keeping of accurate records of cases and work.

(d) Visits to homes by Nurses when directed by Doctor,

(c) Dental Clinics (one is in operation).

The Dublin Corporation has not so far availed itself of the power given by Section 2 of the Act to appoint a Special Committee, which is to include women. The Board suggested that such a committee should include representatives of Philanthropic Associations and of other bodies and persons interested in motherhood and child welfare work, but that there should be a majority of direct representatives of the Council upon any such committee.

In Blackrock, on the other hand, there is a committee consisting of nine members of the Council, one of whom is a lady, and eight ladies nominated by the local branch of

the Women's National Health Association.

The Pembroke Urban Council has appointed a Maternity and Child Welfare Committee consisting of the members of the Council with the five lady Poor Law Guardians for the District and four ladies from the Pembroke Branch of the Women's National Health Association, and a Health Visitor, being a trained Nurse (Jubilee), under the supervision of the Ladies' Sub-Committee and the Medical Superintendent Officer of Health, which has been at work for a short time. The result has so far been most satisfactory. One centre has already been established, and it is contemplated to provide at least two others. Meetings of expectant and nursing mothers take place every Friday, when medical and nursing advice as regards the care and feeding of children is given and arrangements made for supplying necessitous cases with the various artificial diets. This has had most excellent results, the women attending well and are anxious and willing to receive instruction on the various subjects connected with Maternity and Child Welfare.

The Ladies' Sub-Committee has devoted much time and trouble to the matter, and regularly attend at the Centre.

The Local Government Board has intimated that they are prepared to sanction, under Section 3 (2) (b) of the Notification of Births (Extension) Act, 1915, the supply of milk in suitable cases. Although the Committee's operations have only recently commenced, there are at present something like 240 mothers and babies on the books.

Work of the Dublin Branch of the Women's National Health Association.

It appears from the Report of the Central Committee of the Babies' Clubs in Dublin, established by the Women's National Health Association, that there are now 9 Babies' Clubs in the city, three of which came into existence in the year 1916, and as a result of the grant of £400 above referred to. A Club is thus provided for the 8 Dispensary Districts of the City, in fact there are two in the North City No. 1 East. Additional Nurses have been appointed. The work at these Clubs includes medical advice to expectant and nursing mothers and young children up to the age of five years; attention and home visiting from the nurse; classes are given in First Aid, Home Nursing, Hygiene, Cookery, Sewing and Laundry; drugs, clothes, food and virol are provided in necessitous cases, as far as funds admit. The latter part of the work could be developed if the financial question was not such a difficulty, as no part of the Corporation Grant must be spent for this purpose.

Classes of Instruction in Child Hygiene have been started under the Department of Agriculture and Technical Instruction at the request of the Association. A Medical Officer attends each club on the Club Day. The Report contains a Table with the names of the Clubs, names of members, work done, etc. There are also Clubs at Dundrum, Blackrock and Kingstown. The Association has maintained in Dublin two playgrounds and a School Garden.

Report for the Month of May, 1917:—

Total Number of Members	2,125
Separate attendances of Mothers, Infants	
and Children under five years	4,979
Consultations of Mothers and Infants with	
$\operatorname{Doctor} \ \dots \ \dots \ \dots \ \dots$	1,411
Consultations of Mothers and Infants with	
Nurse	1,006
Medical treatment was secured for—	
$Mothers \dots \dots \dots \dots$	25
Infants and children	46
No. of cases sent to Hospitals and other	
Institutions	14
No. of visits paid by Nurse at homes	758
Deaths—Infants	1
Variation alvillation	5
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DR BIGGER'S REPORT ON IRELAND.

Dr. Coey Bigger's Report on the Physical Welfare of Mothers and Children in Ireland, recently prepared for and published by the Carnegie United Kingdom Trust, contains separate Reports by Drs. Ella Webb, Marion Andrews, and Alice Barry, on the work which has been done in Dublin, Belfast, and Cork.

I was unaware until quite recently that Reports on the Physical Welfare of Mothers and Children were in preparation at the instance of the Carnegie United Kingdom Trust, and I have only just read Dr. Bigger's Report, which throws a flow of light on the question and is full of suggestions. The Local Government Board Circular which I have mentioned will be found in the Appendix to his Report, p. 155.

I must allude to the Report later on, in particular to the recommendations as to Dublin, but I wish first to refer to the information I have received as regards Liverpool, Glasgow and Belfast, from Doctors Hope, Chalmers, and Bailie, the Medical Officers of Health for those cities, who have very kindly furnished me with their Reports and replies to my queries.

LIVERPOOL.

In Liverpool the visiting is done by the Women Inspectors, but there are also voluntary agencies, which include Day Nurseries, a dispensary for women and children, and a central school for mothers. The rate of mortality of infants under one year has generally diminished in the twenty years ending 1914, the rate per 1,000 births being 139 in 1914, as compared with 202 in 1895 and 196 in 1904. Interesting statistics are given in the Memorandum of Dr. Hope on Infant Welfare (July 15, 1915) relating to visits paid in connection with the Notification of Births Act. In 1900, Infant Welfare Centres were established for the supply of humanised sterilised milk for the use of infants with beneficial results. The expenditure in 1914 on milk, etc. (Infants' Prepared Food), was £2,453 13s., and the amount realised by sale of Infants' Prepared Food was £2,160 14s. 8d.

The work already undertaken by the Health Committee, and the cost thereof, in respect of which the Local Governmen Board promised a 50 per cent. grant, is summarised in the Memorandum as—

(a) Arrangements for the Local Supervision of Midwives.

(b) Arrangements for such assistance as may be needed to assure the mother having skilled and prompt

attendance during confinement at home.

(c) The systematic home visitation, following the birth notification, of newly-born infants, and the visitation of children below the age of school attendance.

(d) Prevention and treatment of Ophthalmia Neona-

torum.

The object of Infant Welfare, Dr. Hope says, is promoted by all Sanitary operations, great or small, but this is not fully realised.

GLASGOW.

In Glasgow the Notification of Births Act works well, as shown by the fact that the rates of live births notified to those registered in 1913 was 99.7 per cent. as compared with 99.2 per cent. in 1911 and 1912. the scheme of infant visitation a female inspector visits every house in which a birth has occurred, provided information has not been received that a medical practitioner is in attendance. Each inspector makes a report, and, if further observation is desirable, the case is taken up

by the Health Visitor, who is a trained nurse.

The Infants' Health Visitors' Association does valuable The Secretary of each Branch receives Infant Cards from the Health Officers, distributes them in consultation with the President of the Branch to the Visitors, and receives the report cards, and returns them to the Medical Officer of Health every month. A yellow card is sent for information, and a white card for the report. The visit can in no case take the place of medical advice. Its object is rather to give such general direction in the management of children as seems needful. Mothers are to be urged to take their babies at regular intervals to the Infant Consultations. The children who are thus reported are those whom it is desirable to keep under observation during a longer period than is possible by the official visitors, and this period generally extends to the first 12 months of life. Out of 3,200 children referred to the voluntary visitors 270 died during the first year, which represented a death rate of 84 per 1,000, as compared with the average for the city as a whole of 129 in 1913 and 122 in 1912, but the good which is done is by inspiring, stimulating, and encouraging the mothers, even in such simple matters as domestic hygiene.

Dr. Chalmers has sent me some interesting memoranda with reference to Maternity and Infant Welfare Centres, and

proposals for extension of the work done under the Notification of Births Acts. He says: "There is some danger that the Act may be regarded as capable of successfully combating all the defects in our child population, and producing a healthy and vigorous race amid surroundings which have so notibly failed in the past. I gravely doubt The Act is an auxiliary measure, and, given an ade- $_{
m this.}$ quate basis in substantial reform of environment, is capable, I believe, of enermously benefitting the children who will come under its operation. But it would be a mistake of the first magnitude to hope that the best results may be obtained unless it is associated with reform of conditions or housing on a scale very much wider than has hitherto been attempted, and with a continued insistence on all the other factors in sanitary reform which experience has shown As an adjunct to those it is possible, I to be of value. believe, to anticipate a time when physical deterioration will cease to be a necessary feature of city life."

I have also just received a copy of the Report of the Proceedings of the Maternity and Child Welfare Conference held in Glasgow on March 13th and 14th, 1917, which well deserves perusal.

The words I have quoted are very apposite to the condition of things in Dublin.

BELFAST.

In Belfast the Notification of Births Act is under the control of the Public Health Committee. As regards child welfare or the care of infants and mothers, more Health Visitors were employed on the work in 1916, but the Public Health Committee has under consideration the establishment of a number of Centres in connection with child welfare which they hope to have in full working order at an early date, and a scheme for that purpose prepared by Dr. Bailie is at present under the consideration of the Local Government Board.

The population of Belfast in 1915 was estimated at 403,000, the area of the city being 14,804, density 27.22 persons to an acre. Births 10,196, birth-rate 25.3; deaths 7,220, death rate 17.9; infantile mortality, 1,399 deaths under 1 year, or 137 per 1,000 births, as compared with 143 in 1913 and 1914.

In different districts of Belfast the infantile death-rate varied, 172 in one, and as low as 81 in another. The general death-rate in Belfast has diminished since 1896, the rate for the five years, 1896-1900, being 22.7; 1901-1905, 20.8; 1906-10, 19.5, and 1911-15, 18.2.

The female sanitary staff in 1915 consisted of 11 officers, each of whom holds a certificate from a recognised Sanitary or Public Health Institute, and four of them also hold certificates in midwifery. One was engaged during the year superintending midwives and looking after the welfare of mothers and infants; eight were principally engaged in discharging the duties under the Notification of Births Act, and two were engaged under the Factory and Workshop Act, 1901. In addition to their specialised work, each officer took cognizance of the sanitary condition of the houses visited by them, and gave advice regarding hygiene and domestic matters, and the precautions to be taken in order to prevent tuberculosis, infantile mortality, etc.

Under the Notification of Births Act there were 9,390 births notified during the year, including 240 still-births. According to the return of the Registrar-General for Ireland. there were 10,196 births, exclusive of still-births. or 10.3 per cent. of the births registered during the year were not notified in accordance with the provisions of the Act; this was an improvement of 9.6 per cent., compared with the preceding year, when the number not notified was 1,806, or 15.9 per cent. When notifications of births were received, cases where neither dectors nor qualified nurses were in attendance were immediately visited by the female officers, and, when necessary, instructions relating to the care and welfare of mothers and children given, and they were afterwards kept under supervision as long as it was considered necessary. Births which were being attended by doctors or qualified nurses were not visited during the times they were in attendance, but were subsequently visited, if considered necessary.

The number of deaths of children under one year old investigated was 1,086 (593 males and 493 females), 190 of these occurred during the first week after birth, and 103 were due to prematurity, atrophy, debility, marasmus, and congenital defects, or, in other words, were due to pre-natal causes, that is to say, 9.5 per cent. were due to causes

affecting the mother and child prior to the birth.

The voluntary organisations in Belfast dealing with Infant Welfare are described by Dr. Marion Andrews at pp. 124 6 of Dr. Bigger's Report. There are six Babies' Clubs, three carried on by the Women's National Health Association, and three by the newly-formed Belfast Health Society. Milk is supplied both to nursing mothers and babies at these clubs through the Public Health Committee voluntary fund.

Dr. Andrews is of opinion that further methods must be adopted by a combination of official and voluntary work of

an educative and preventive character to deal with the high death-rate of infants in Belfast, which for the ten years from 1906 to 1915 was as follows:—143, 135, 147, 138, 143, 128, 129, 144, 141, 137. The causes (she says) of high infantile mortality are far from being well known; poverty, intemperance, bad housing are amongst the causes, but she is convinced that ignorance is the factor of amportance. She approves of the scheme by which the Public Health Committee is to take over the existing Babies' Clubs and establish several new ones as "Maternity Centres." These centres (she says) should be attended by doctors with very special qualifications for the task.

DR. BIGGER'S REPORT AS TO DUBLIN.

Dr. Ella Webb, in her report on Dublin, first points out that though the mortality among children under one year is very low in Ireland as a whole, that of the City of Dublin is abnormally high, and that while the infant deathrate in all cities in England has been considerably reduced during the last ten years, that of Dublin remains unreduced, being 160 in 1913, 155 6 in 1914, and 160 3 in 1915, as compared with 150 7 in 1906 and 160 2 in 1907.

Then follows an account of (a) the Poor Law Arrangement for children, and (b) the Voluntary Organisations for their welfare, Hospitals, Infant Aid Society, "Babies' Clubs," or Infant Consultations, etc., to which I have already referred. It appears that by means of the recent grant to the Infant Aid Society four whole-time appointments have been made, one fully trained nurse with special experience of infant mortality work in England at £100 a year, and three other fully trained nurses at £60 a year.

The sums received by the Clubs from the grant have been expended on the nurses' salaries alone, the rest of the funds being raised by the local committees of ladies. Then follow Dr. Ella Webb's recommendations:—

(a) "Nurses" should be obliged to register and obtain a licence or certificate of fitness before they receive a child to care.

More care should be taken by philanthropic societies connected with rescue work with regard to the women to whom they give infants. It should be made illegal to receive a lump sum with an illegitimate child.

(b) A large Central Infants' Clinic is wanted, with a small number of beds for exceptional cases, to which difficult cases could be sent from the Health Visitors and from the Babies' Clubs. Better training is needed for the workers of the Infant Aid Society and Babies' Clubs, and more co-operation between the two organisations. Day Nurseries should be more numerous and better equipped. Help should be given as regards anti-natal work by (1) the midwives engaged by expectant mothers, and (2) by the Insurance Societies when application is made for maternity benefit. A reliable milk supply is a great need. Dispensary doctors and doctors working in city districts should be put in closer touch with the agencies for child welfare.

Lastly, some academic recognition of the great problem should be given in the Medical Schools.

General outlines of schemes for Dublin and other County Boroughs are given at pp. 98 103 of the Report.

Dr. Bigger says that about 7,000 out of the annual number of births, which is under 9,000, require to be looked after, and for this number he suggests a chief visitor with fourteen others, the City to be divided into districts, and each put in charge of one visitor. One Child Welfare Centre should be established in the centre of the City, with four subsidiary Centres, which might be placed in the hands of the voluntary organisations. He suggests that dried powdered milk should be sold at the chief Centre at cost price. The Medical Officer of Health should supply each Society, which requests him, with a list of houses which might be visited. This visiting is to be in addition to and not in substitution for the official visiting by the Health Visitors.

The aim should be to make Dublin a centre for the teaching of infant and child welfare work. The total expense of the scheme would be less than £3,000 per annum, and, as the Treasury would reimburse one half of this sum, it would only cost the City £1,500 a year, considerably less than ½d. in the pound on the rates.

For Belfast Dr. Bigger proposes practically the same scheme, only larger, about 8,500 births requiring attention.

He reports that neither Dublin nor Belfast has adopted such a complete scheme as he has set out, and that this work, for which the municipality is essentially responsible, is left largely to voluntary bodies, which are seriously hampered by lack of funds.

The distribution of Infant Mortality in Ireland is not uniform, as shown by the figures given in the Report at p. 7, the rates in the Rural districts being much less than

in the Urban. One County and six County Boroughs had, in 1915, rates exceeding 100 per thousand births, viz.:—

Limerick		• • •	 108.16
Waterford		•••	 110.20
Cork			 118.84
Dublin Coun	$_{ m ty}$	• • •	 121.35
Belfast		• • •	 136.73
Londonderry			 142.45
Dublin Coun		orough	 160.30

The Report contains a survey of the causes of deaths among infants in Ireland and the factors in the causation of deaths of infants and children, the legislation which tends directly or indirectly towards infant, child, and maternal welfare, and the voluntary work which is being done through the country, and recommendations, which are summarised at pp. 104-107. One of these recommendations (No. 25) deals with one of the factors causing infant mortality. namely, the demestic surroundings of the mother and child. It is that "after the war, urban authorities should aim at effecting great improvements in the housing conditions and at the abolition of the slums. Urban District Councils should be empowered to provide houses for the poorer working classes in much the same way as Rural District Councils provide labourers' cottages in their districts."

The evils of the tenement house system in Dublin are referred to; 20,108 families living in one-room tenements, 12,042, numbering in all 70,973 persons, show an average of over six persons living in one room. Such conditions must favour excessive mortality.

Sir Arthur Newsholme's recent Report on child mortality at ages 0-5 in England and Wales bears testimony as to the close association between dense crowding in houses and excessive child mortality.

The difficulty in carrying cut Dr. Bigger's recommendation as regards Dublin is mainly one of expense, the fact that new dwellings cannot be built by the Corporation and let at low rents without great loss has been proved by experience. This consideration presses at the present time, and will do so after the War. A simpler remedy is to improve the condition of the better class of tenement houses, either by putting pressure on the owners of them, or by taking them over and remodelling them. The aim should be to get rid of one-room tenements and convert the houses into flats.

Many houses in a street are inhabited by one family and well kept in good order. A few doors further we find houses which have become tenement, hall door always open, windows broken, or out of repair, and stairs illighted and dirty. If the visiting of these tenements was undertaken by some of the residents of the good houses, as, say, members of the Infant Aid Society, they would get an interest in their neighbours and do much for their good. I could say much on this subject, but I understand now that there is to be a separate discussion on Housing at the Conference.

SIR CHARLES CAMERON'S REPORT FOR 1915.

Since writing the above I have received a copy of this Report, the publication of which has been unavoidably delayed owing to the printing office of the company, in which the Report was being printed in April, 1916, having been burned to the ground. The Report had to be rewritten and printed at new premises secured by the company. It may be that it is owing to this fact that there is no reference in Dr. Bigger's Report to the work done under the Notification of Births Act by the Lady Sanitary sub-officers (10 in number) appointed by the Public Health Committee of the Corporation. The report admits that infant mortality has been greatly reduced in England, but not in Dublin, as is shown by the figures given at p. 194, which are not quite the same as those given above.

As in Belfast, so in Dublin the infantile death-rate varies in different Districts of the City, e.g., in 1915 it was 199 in the South City No. 1, 196 in South City No. 2, and 183 in North City No. 1. These are the poorest and over-crowded parts of the City. An interesting account of these districts and the then rate of mortality will be found at p. 19 of Surg.-Col. Edgar Flinn's Report to the Local Government Board in 1906 on the Sanitary Circumstances and Administration of the City of Dublin, on the map attached to which the principal area of poverty is shown in dark colours. It is only right to add that considerable improvements have been since made in these areas.

This Report contains a valuable summary of the opinions of the District Medical Officers on the causes of the death-rates, general and infantile. 91 4 of the total number of births registered in 1915 were notified to the Medical Officer of Health, as required by the Act. Practically all the births occurring among the poorer classes in the City are notified through the medium of the City Maternities where the

vast majority of these cases take place. Statistics are given relating to the visits paid by these sanitary officers under the Act. 5,963 visits were made during the year; 2,819 cases were reported to the Dublin Committee for the Prevention of Infant Mortality, now called the Infant Aid Society, which had been five years in existence. Figures are given as to the condition of the infants, and how fed, of the cases where the mother works, regularly or casually, the advice given, the condition of the apartment, etc., and the notices to clean rooms served.

The Report of the Infant Aid Society for 1915 is then set out, from which it appears that in the latter half of 1915 the members paid 8,000 visits, distributed £145 10s. Od. in milk, dinner and coal tickets, gave away over 1,000 articles of clothing, and about 2,500 loaves of bread. The City is divided into districts, each with its own band of visitors under the directon of a "Captain," who assigns the cases to the different visitors, receives their reports, tabulates them, and reports them to the Central Office.

The Report then refers to the Act of 1915 and states that no scheme had as yet been adopted, but that one would be in operation in 1916. (I have referred to this scheme already.) Pages 203-218 are taken up with Reports of the Lady Sunitary Sub-Officers. Mrs. O'Brien's Report calls attention to the ignorance of the Act which prevails, especially in the case of persons coming from the country where the Act has not been adopted, and gives particulars of a case, only one of many, which proves the necessity for more publicity being given to the requirements of the Act, its responsibilities, object, and humane outlook. Miss Thornton reports a vast improvement on past conditions, greater care and personal cleanliness were apparent. experiences showed that in a number of cases the mothers belonging to the very poor class suffered from insufficient "If it were possible to devise a system nourishment. by which it might be known that a woman was about to become a mother at a certain time, enquiry could be made into her economic condition, so as to have proper nourish-Could this be done the high death-rate ment afforded. would be substantially reduced."

Dr. Moore has recently established in Huddersfield a system for the voluntary notification of pregnancy. See his Milroy Lectures on Infantile Mortality, delivered before the Royal College of Physicians of London in 1916, a copy of which he sent me. He gives there, at p. 48, an outline of procedure adopted in Huddersfield in the matter of anti-natal hygiene rendered possible by notification of

pregnancy. He advocates (p. 53) the universal notification of pregnancy, the securing for every mother adequate provision of the means necessary for a satisfactory termination of her pregnancy and provision for a supervision of every infant born.

Dr. Bigger suggests that attendance at a Maternity Centre where there is one might be made a condition of payment of Maternity Benefit, and where there is no centre on the certificate of the Health Visitor. This, he says, would probably bring the condition of the women of the industrial classes to the notice of the Medical Officer connected with the Maternity Scheme in the district, and as far as insured women or the wives of insured persons are concerned, have the same effect as notification of pregnancy.

Even to the lay reader these lectures are full of interest, especially his account of the work of Morel de Villiers at Villiers le Duc, a Commune of France, where, owing to the measures taken, the infant mortality figure had been zero for ten years.

If time permitted I could quote from these Regulations, one of the essential features of which Dr. Moore says is that they are orders to do certain things, and not merely recommendations or advice.

A few more references to the Reports of these Officers. Owing to the number of men hitherto unemployed who joined the Army, there is much less poverty, unless in cases where the separation allowance was misspent, but food prices being so high still left much to be desired for mothers and babies among the poor. They advise mothers to go into hospital, where there is not proper accommodation at home, and suggest more Day Creches and also Day and Night Nurseries, where children could be cared for in the absence of the mother. Infants are often left in charge of the elder children, with the result that they are improperly fed and exposed to serious accidents as well as the danger of being burned. The supply of fireguards free, where the family is young and the father is unable to provide them, is suggested. Most of the infants visited are born healthy, but many become delicate soon after birth, and die owing to nursing mothers not having proper nourishment. The Infant Aid Society has done much good in this respect. One report suggests that where there is a large family and the father is out of employment the mother should be allowed (during her illness) some milk and beef through the dispensary doctor of the district.

Complaints of dirty rooms were, as a rule, attended to. One report says:—'In almost all cases visited not only have I been politely received, but my advice has been listened to with interest and attention. I found only 35 dirty rooms, 29 were cleaned on written notice given on the patient's recovery, and in only 6 cases were written notices needed." This officer has visited 755 cases in 1915

These Reports are a record of good work done, and probably Sir Charles Cameron's Report for 1916 will show a greater improvement. The visiting of children up to the age of five years, which is contemplated by the Act of 1915, cannot fail to have good effect. Sir Arthur Newsholme's Report on Infant Mortality at Ages 0-5, to which I have already referred, is replete with interest. "The most important first task (he says) is the appointment of a staff of health visitors who will be sufficient in number to visit each infant at intervals during infancy, and keep in touch with the child and its mother by home visiting and by attendance at a child welfare Centre until school attendance begins." He points out that the circumstances which favour excessive child mortality are complex and numerous, and that opinions, not unnaturally, differ as to their relative importance. Lack of medical care and nursing, carelessness, intemperance, poverty, bad housing, overcrowding in rooms, all, in his opinion, contribute to the evil which it is desired to remedy.

But if the methods adopted under the Act result in a greater number of children attaining the age of five years, or school age, and in a healthier condition, the care of their health must be continued by extending to Ireland the provisions of the Act enabling the Sanitary Authorities to appoint Medical Officers for schools. Combine with this the enforcement of better daily attendance at school, the judicious application of the Acts for the provision of meals, the instruction of children in hygiene and other matters conducive to physical, as well as to mental and moral welfare, and we need not despair that before many years have elapsed the rising generation in Ireland will be better

prepared to face the battle of life.