

The most modern form of incubator—the “*Couveuse Lion*”—has been purchased from the *Lion Institute* in Paris. It is easily worked and gives perfect satisfaction.

INFANT MORTALITY IN PELVIC PRESENTATIONS.

Of the 54 cases of pelvic presentation in the Intern Maternity—6 infants were macerated, 15 premature, and 33 full time. Of the premature infants—7 were alive and 8 dead. Of the full-time infants—30 were alive and 3 dead, being an infant mortality of 1 in 11, or 9 per cent. We do not count cases under this heading in which version was performed.

Of the 54 cases of pelvic presentation in the Extern Maternity—4 infants were macerated, 2 hydrocephalic, 8 premature, and 40 are recorded without particulars. Of the premature infants—4 were alive and 4 dead. Of the 40—28 were alive and 12 dead, being an infant mortality of 30 per cent.

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ART. XXIN.—*On the Mortality of Children in Ireland* (1886-1896). By LANGFORD SYMES, F.R.C.P. (Dubl.); Assistant Physician, Dublin Orthopædic Hospital; Physician to the Homes for Destitute Children; Late Clinical Assistant Physician, Hospital for Sick Children, Great Ormond-street, London.

I HAVE ventured to submit to you some calculations, which, though very few, are yet of great importance, and I hope of some interest, concerning the deaths of young children in Ireland. These may not, perhaps, afford much material for a lively argumentative discussion, but as an investigation conducted with considerable difficulty and very great care, I ask your kind attention for a few moments. Long columns of figures, death-rates, and percentages I have reduced to their smallest possible compass, and I have endeavoured to present to you, accurately, in a nut-shell the present state of child-life in this country.

For your convenience I have taken the liberty of handing

\* Read before the Section of State Medicine in the Royal Academy of Medicine in Ireland, on Friday, April 29, 1898.

you these figures, and I trust they appear in an intelligible form.

In Table I. you will see the deaths of young children under 1 year and under 5 years in the whole of Ireland and our four large cities, for 10 years ending 1896, along with the total births and deaths at all ages.

**TABLE I.**—*Summary of Deaths of Children under 1 year and under 5 years in the whole of Ireland, Dublin, Belfast, Cork, and Limerick Cities, with total Births and Deaths for Ten Years ending December 31st, 1896. (From Annual Reports of the Registrar-General).*

*Total for Ten Years ending December 31st, 1896.*

	Total Births	Total Deaths	Deaths of Children under 1 year	Deaths of Children under 5 yrs.
Whole of Ireland ...	1,072,592	845,722	105,469	174,614
Dublin City ...	100,045	93,106	17,131	28,517
Belfast „ ...	95,727	50,224	14,620	26,110
Cork „ ...	32,013	28,757	3,881	6,355
Limerick „ ...	16,341	13,181	1,773	2,696

These are even better understood by a glance at Table II., which sets forth the rates per 1,000.

**TABLE II.**—*For Ten Years ending December 31st, 1896.*

	UNDER ONE YEAR. (Rate per 1,000 Registered Births). Out of every 1,000 Children born there die in 1st year	UNDER ONE YEAR. (Rate per 1,000 total Deaths). In every 1,000 total Deaths there die Children under 1 year	UNDER FIVE YEARS. (Rate per 1,000 total Deaths). In every 1,000 total Deaths there die Children under 5 yrs.
Whole of Ireland	98·6	124·7	206·4
Dublin City ...	171·2	183·9	306·2
Belfast „ ...	142·2	291·0	519·3
Cork „ ...	121·2	134·9	220·9
Limerick „ ...	108·5	134·5	204·5

Observe that in the *City of Dublin* out of every 1,000 children born 171·2 die in their first year. This is the highest in Ireland. Look for a moment at *Belfast*. Here you will see a most astonishing fact—viz., that in every 1,000 total deaths no less than 519·8 (almost 520, and considerably over *one-half*) are children under 5 years of age. We are not quite so bad here in Dublin, although our rate is higher than it might be; but it is a reproach even to us that of our own total deaths more than one-third are children under five (306·2 per 1,000).

Thus far many investigators have gone before, and being accustomed to see such figures often quoted they may, perhaps, cause you no surprise.

I will, however, pass on to a more practical aspect of the subject, and ask you to come with me a step further, and let us investigate the causes of these deaths—viz., what classes of disease are most fatal to children in this country, and hence, perchance, we may at length approach the *fons et origo mali* (the sources of our high infantile mortality), a pursuit which is alike fraught with difficulty and interest.

In Table III. you will see set forth the *classes* of disease most fatal to children in Ireland under 1 year and under 5 years, for ten years ending 1896.

TABLE III.—*Classes of Disease most Fatal to Children in the Whole of Ireland for Ten Years ending December 31st, 1896.*

UNDER ONE YEAR. Causes of Death.		UNDER FIVE YEARS. Causes of Death.	
1 Local Diseases	... 46,444	1 Local Diseases	... 77,424
2 Ill-defined causes	... 30,716	2 Specific Febrile Zymotic Diseases	... 36,774
3 Specific Febrile Zymotic Diseases	... 15,400	3 Ill-defined causes	... 34,288
4 Constitutional Diseases	6,274	4 Constitutional Diseases	... 16,690
5 Developmental „	... 4,715	5 Developmental „	... 4,758
6 Violence	... 1,731	6 Violence	... 4,248
7 Parasitic Diseases	... 197	7 Parasitic Diseases	... 425
8 Dietetic „	... 52	8 Dietetic „	... 57

In this list I would draw your attention to the fact that of young children dying in Ireland an enormous number

appear to be so *indifferently certified* that they cannot be properly registered and classified. It is a great pity that so many deaths are ill-defined. Observe, also, that these imperfections are almost entirely confined to children under one year. What does this mean? I take it to signify, amongst other things, that the younger the child is the greater is the difficulty of the diagnosis of its disease, and hence the greater likelihood of its being inaccurately recorded. Again it must be borne in mind that in a great number of these ill-defined cases there has been no medical attendance at all, and the children have been allowed to die uncertified.

Pursuing this a step further, Table IV.\* will, perhaps, bring it out more forcibly. It shows you the various *systems affected* or *orders of disease* most fatal to young children. They are placed in the order of their relative importance.

This is a very valuable and interesting table. Observe the high place occupied by *nervous diseases*, especially in young infants. There were 21,998 cases of nervous diseases under one year, while in the *next four years combined* there were only 6,830. This is most remarkable. Observe, also, how *respiratory* diseases chiefly kill the older children.

Equally striking is the frequency of *diarrhoeal* diseases under one year. *Venereal* diseases are seen to act heavily on the younger children. Mark, also, the large number of *homicides* in infancy. There is an absence of *malarial* diseases.

The most useful Table of all is, however, the longest—Table V. It shows the actual registered diseases, and individual causes of death of all young children in Ireland for ten years, arranged in the order of relative morbidity.

\* Omitted from want of space.

TABLE V.—[Abridged.]—*Registered Diseases and Actual Causes of Death of all Children in the Whole of Ireland for Ten Years ending December 31st, 1896, in the order of relative morbidity.*

UNDER ONE YEAR.		UNDER FIVE YEARS	
Causes of Death.		Causes of Death.	
1 Debility, Atrophy, Inanition	29,136	1 Debility, Atrophy, Inanition	32,062
2 Convulsions	20,764	2 Convulsions	25,261
3 Bronchitis	14,017	3 Bronchitis	24,773
4 Diarrhoea and Dysentery	5,762	4 Whooping-cough	11,456
5 Whooping-cough	4,893	5 Diarrhoea and Dysentery	8,383
6 Premature Birth	3,827	6 Tabes Mesenterica	7,564
7 Tabes Mesenterica	3,512	7 Measles	7,557
8 Pneumonia	2,519	8 Pneumonia	5,868
9 Tubercular Meningitis	1,755	9 Croup	5,509
10 Measles	1,691	10 Tubercular Meningitis	5,069
11 Croup	1,589	11 Premature Birth	3,827
12 Dentition	1,201	12 Scarlet Fever	2,919
13 Ill-defined and not specified Causes	1,176	13 Inflammation of Brain and Membranes	2,646
14 Diseases of Stomach	1,145	14 Dentition	2,399
15 Influenza	1,052	15 Forms of Tubercle or Scrofula other than Tabes, Phthisis, and Tubercular Meningitis	2,190
16 Inflammation of Brain and Membranes	923	16 Diseases of Stomach	2,000
17 Enteritis	796	17 Burns and Scalds	1,941
18 Ill-defined Diseases of Respiratory System	645	18 Influenza	1,909
19 Forms of Tubercle and Scrofula	637	19 Diphtheria	1,818
20 Suffocation	578	20 Ill-defined and not specified Causes	1,754
21 Ill-defined Accidents or Negligence	498	21 Enteritis	1,217
22 Simple Cholera	418	22 Phthisis	1,196
23 Homicide	406	23 Ill-defined Diseases of Respiratory System	1,194
24 Syphilis	399	24 Enteric Fever	751
25 Spina Bifida	363	25 Suffocation	621
26 Ileus and Intestinal Obstruction	357	26 Accidents and Negligence not stated	613
27 Scarlet Fever	356	27 Simple Cholera	607
28 Ill-defined Diseases of Liver	354	28 Laryngitis	578
29 Erysipelas	314	29 Diseases of the Liver other than Ascites, Gallstones, and Cirrhosis	495
30 Phthisis	231	30 Ill-defined Diseases of Brain and Cord	484
31 Sore Throat, Quinsy	215	31 Sore Throat and Quinsy	480
32 Ill-defined Diseases of Brain and Cord	202	32 Ileus and Obstruction	452
33 Atelectasis	197	33 Syphilis	452
34 Thrush	186	34 Homicide	430
35 Diphtheria	171	35 Erysipelas	407
36 Laryngitis	164		
37 Peritonitis	162		
38 Burns and Scalds	160		
39 Abscess	153		
&c., &c.		&c., &c.	

Now what disease heads the list? A very indefinite and unsatisfactory diagnosis. I think you will grant that *debility, atrophy, and inanition* is somewhat too general a term for a medical certificate. True it is that some of these are uncertified, but by no means a large proportion. This opens a large field for investigation. It represents, I think, a certain lack of that precise accuracy in our diagnosis of the fatal diseases of children, which, however difficult it may be, yet we all should aim at. Most of the cases catalogued in former tables as "ill-defined and not specified" are here found entered as "debility"—a title truly indistinct.

A like observation holds good with regard to *convulsions*. This, as you know, is not a true disease at all. It is merely a symptom—a most obscure one I grant you, but one which I think we should endeavour to fathom somewhat more deeply than, perhaps, we have been hitherto accustomed. Convulsions may be symptomatic of the most varied and diverse forms of disease, from the most trifling dyspeptic ailment on the one hand, to the most incurable gross structural disease on the other. To my mind, we might just as well register a death as due to *headache* as to say a child died of "convulsions." The diagnosis is difficult, but I believe we should try it, and not only so, but that we should educate our students to try it also. It is, at present, almost open to any outsider to say that the two chief causes of our infantile mortality in Ireland are diseases which are insufficiently recognised by our Profession.

There are many other points of interest in this Table—see No. 12 in the first list (No. 14 in the second). Now, *do children die from dentition?* I do not believe they do. We have all seen children die during the process of "teething," hundreds do, but if solely attributed to this cause I now believe the diagnosis to have been a more or less mistaken one. There are many accidents and accompaniments attending this period of "dentition" in children, just as there are at "puberty" and the "menopause," but as an actual cause of death it should not, I hold, be registered, as it has only a predisposing and remote connection with many of its contemporary troubles.

It is interesting to see where *suffocation* comes in our list; it ranks high in young children. Other diseases, to whose special position in infancy I would draw your attention, are:—*syphilis* (No. 24); *diphtheria* (No. 35); and *enteric fever* (No. 48). This latter I am inclined to believe is rather exaggerated in frequency. *Chorea* (No. 126), so very prevalent in later childhood, scarcely affects infants at all, and caused only one death in the whole of Ireland in ten years.

Turning now to the older children—viz., total under five years—observe *diphtheria* again (No. 19). I am of opinion this is very much under the mark. It is more common in these children than we are aware, but the uncertainty of the meaning of the word *croup* renders the returns as “*diphtheria*” exceedingly unreliable. I believe I am very nearly right—I will not say quite right, but very nearly so—when I say that *there is no such disease as croup*.

I have purposely inserted all the causes of death usually registered in this country, leaving blanks attached, to show how these affections have no part in the production of infantile mortality.

Finally, may I ask your attention to another important fact—viz., that this subject of “infantile mortality” seems to lie at the door of us *physicians* and not of the *surgeons*. With the high death-rate of children the surgeon appears to have little or nothing to do. I would that surgery might take with medicine its equal share of responsibility in this matter, but if you glance down these lists of deaths, how hard it is to find a purely surgical affection. They evidently die from “medical diseases.” Whether it is that surgery in young children is more brilliantly successful, and that medicine is comparatively a failure, or whether it can be that the practice of medicine amongst children is but little understood by any of us, or whether, again, that a *surgical* disease may be so supernaturally transformed as to die with a medical certificate are questions which I leave to your wiser judgment to determine! One thing, however, is certain, and *in this connection it should be borne in mind* for it is perfectly clear, *that hospitals for sick children should be mainly devoted to medical work*.

We must remember that in these matters we can deal only with the *fatal cases*. We have no public records of disease kept in the United Kingdom. We can, therefore, only guess at the comparative frequency of any illness.

I would ask you to kindly recollect that I have here attempted to give you only the smallest possible "bird's-eye" view of the whole subject as it appears to me, but a view which is, I think, essential before any deeper study can be undertaken

I hope these few tables may be of some little use in pointing out the diseases from which young children are dying in Ireland at the present day, and which have to be fought against in any attempt to reduce our infantile mortality. They will, at least, lay a small but accurate foundation for further work on this subject. The chief of these diseases are ruled off at No. 11 on our list.

In conclusion only one word more—it is to return my cordial thanks to Dr. Grimshaw, our Registrar-General, for his kindness in lending me copies of his returns, some of which were out of print.

Also, I would refer you to a most able paper by Dr. Grimshaw on the social aspect of "Child Mortality in Dublin," which he traces to the four following causes:—

1st. Poverty.

2nd. Inferior House Accommodation of Artisans and Labourers.

3rd. Drunkenness.

4th. Carelessness.

Against these four causes then, and the first eleven diseases in my list, must be directed any and every crusade against the mortality of children in Ireland.