Observations on the comparative advantages of affording obstetric attendance on poor woman in lying-in hospitals and in their own homes / by Denis Phelan.

Contributors

Phelan, Denis, 1785-1871.

Publication/Creation

Dublin : J. Falconer, 1867.

Persistent URL

https://wellcomecollection.org/works/f3q5q9n4

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

For Dr Dyce
Professor of Midwifery in
the University of Aberdeen
From the author

OBSERVATIONS

ON THE

COMPARATIVE ADVANTAGES

32

OF AFFORDING

OBSTETRIC ATTENDANCE ON POOR WOMEN

IN

LYING-IN HOSPITALS

AND

IN THEIR OWN HOMES.

BY

DENIS PHELAN, M.R.C.S., LONDON;

LATE P. L. MEDICAL AND GENERAL INSPECTOR.

Reprinted from the Dublin Quarterly Journal of Medical Science, February, 1867.

DUBLIN:

JOHN FALCONER, 53, UPPER SACKVILLE-STREET,

PRINTER TO HER MAJESTY'S STATIONERY OFFICE.

1867.

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

https://archive.org/details/b30567919

OBSERVATIONS

ON THE

COMPARATIVE ADVANTAGES

OF AFFORDING

OBSTETRIC ATTENDANCE ON POOR WOMEN

IN

LYING-IN HOSPITALS AND IN THEIR OWN HOMES.

It seems, for many reasons, desirable to ascertain whether, in large cities and towns, such as London, Dublin, Glasgow, &c., society is as much benefited by affording obstetric attendance in lying-in or other hospitals to such poor women as wish to be confined in them as if it be afforded in their own residences—that is, in the residences of those who have a home in which they can be conveniently attended. Of course, for such exceptional cases as require careful medical watching or professional treatment the hospital is necessary.

The subject may be considered under these heads:—1. Which mode of attendance is the least expensive, assuming each to be efficient; and 2, by which is there less loss of life of mothers and children?

In respect to the comparative expense of hospital and of home attendance, we have the following data.

The Reports of the Board of Superintendence of Dublin Hospitals show that, in the seven years ended March, 1864, 9,039 labour cases, and 1,272 patients affected with chronic female diseases, were admitted into the Dublin Rotundo Lying-in Hospital, and that the expenditure amounted to £16,018, which sum (excluding the cost of buildings and furnishing such buildings) was an average cost of 31s. per head. During these seven years 617 extern labour cases were attended from the hospital, for which the expense is not given, probably because there is no officer paid for that particular duty, the cost of which is mixed up with the general expenditure.

During these seven years 3,496 labour cases, and 244 chronic patients were admitted into the Coombe Lying-in Hospital in Dublin, the expenditure being £5,600, which is an average cost of 29s. 10d. per head; but in this is included the expenditure on a dispensary for women and children, for which a medical officer is specially employed and paid. During that period 4,473 home labour cases were attended by the hospital medical officers and pupils.

If the cost per head be calculated on the totals attended in and out of hospital, that on the 10,928 cases attended by the Rotundo would average 29s. 3d. per head, and on the 8,210 attended by the Coombe, 13s. 6d. per head. This disparity of cost arises from the greater number of externs attended by the Coombe than by the Rotundo.

The expenditure of the London Royal Maternity Charity is stated to average £1,830 yearly, and the number of women to be 3,500 annually, which is an average cost per head of 10s. 6d. The attendance by this institution is exclusively extern.

I am not aware of any other published data to show the cost of home attendance on lying-in women. As that by the Rotundo Hospital is almost exclusively intern, the cost, of course, is proportionately high; the mixed system adopted by the Coombe reduces the average cost to a moderate sum, whilst the exclusively home attendance by the London Maternity is still less expensive.

MORTALITY OF MOTHERS IN CHILD-BED.

1. The Registrar-General reports that, in the year 1861, 886 died of metria (puerperal fever) in England and Wales, and 2,109 of the accidents of child-birth; in 1862, 940 died of metria, 2,137 of the *accidents;* and in 1863 the mortality was 1,115 from the former, and 2,483 from the latter. These returns show that the mortality from

metria in the first year was one in 781 births; in the second, one in 758; and in the third, one in 654. The average of the three years was one in 726. The mortality from the accidents of childbirth was one in 330 births in the first year, one in 333 in the second, and one in 255 in the third. The average of the three years was one in 306.

In 1861 the mortality from both causes was one in 235 births; in 1862, one in 231; and in 1863, one in 202; the average of the three years being in the proportion of one death to 223 births.

2. In the first of these years, 162 died of metria and 234 of the accidents, in London; in the second, 190 died of the one, and 245 of the other; and in the third year, 222 and 227 died. From metria the mortality in these respective years was one in 610 births, one in 531, and one in 464; and from the accidents, one in 424, one in 414, and one in 450. The mortality from both causes was in the proportion of one death to 234 births in the three years; in first as one to 250, in the second one to 232, and in the third one to 228.

3. In 27 cities and towns of the largest populations and trade in England, whose population is about 3,546,000, 162 died of metria and 427 from the accidents of child-bed in 1862; and in 1863 153 died of the former and 395 of the latter. The mortality from metria in 1862 was one in 761 births, in 1863 one in 800. From the accidents of child-birth it was one in 290 and one in 312. From both causes it was in the proportion of one to 209 births in 1862, one to 225 in 1863.

4. The Registrar-General for Scotland reports that 203 died of metria in that country, in 1861, and 130 in 1862, being in the proportion of one to 500 births in the former year, of one to 800 in the latter. From the accidents 308 died in 1861, and 305 in 1862, being one in 345 births in each year. From both causes the mortality was one in 207 births in the first year, one in 243 in the second.

5. In 1861 the mortality from metria was 84, and in 1862 it amounted to 49, in seven of the most populous and trading cities and towns in Scotland, whose population is about 886,000; and that from the accidents of child-birth was 108 in the first year and 98 in the second. From both causes the mortality averaged 178 annually, and was in the proportion of one to 170 births. In Glasgow 57 died of metria, in the two years, and 85 of the accidents, which was one in 227 births annually.

There is yet no published account of the mortality in Ireland from these two causes, but the Registrar-General has published lists of it for the years 1864 and 1865, in the registration district of Dublin, which includes Kingstown, Blackrock, Donnybrook and Rathmines; and, as my object is to compare the mortality in large and dense populations, the returns for the Dublin district will answer that purpose.

6. The population of that district is 314,409. In these two years there were 72 deaths from metria and 48 from child-birth—total, 120. The births averaged 7,952 annually; the mortality from both causes was one to 132½ births; from metria one in 221, from the accidents one in 331.

The mortality of mothers in child-bed in lying-in and other hospitals is now to be considered.

1. Mr. Simon, the medical officer of the English Privy Council, gives the following information in the *Sixth Report on Public Health*:—"In Paris there are, besides one large lying-in hospital (La Maison d'Accouchement), in all the general hospitals beds (numbering from 14 to 52) set apart for the delivery of females. In the year 1862, 2,204 births took place in the Lying-in Hospital; and 166, or one in 13¼, died; 4,764 were confined in the other eleven Parisian hospitals; and 310, or one in 15⅓, died. The mortality from metria was in the proportion of one to 15⅔ births in the Lying-in Hospital; in the other hospitals, as one to 18½.

2. "In the fifteen years ended 1859, 8,036 women were delivered in the St. Petersburgh Midwives' Institution, of whom 306, or one in 26⅔, died. In these 15 years, 25,711 labour cases were admitted into the hospitals of that city, and 1,117 of them died in child-bed, which was one in 22

3. "During the 24 years ended 1856, 4,960 deliveries took place in the London York-road Hospital, and 146, or one in 31, died; in two of these years 188 women were delivered in it, and 34 died, which was a mortality of one in 5½ births. The principal cause of death was puerperal fever. Puerperal fever has occurred in this institution since 1856; the last outbreak was connected with scarlet fever, in 1861. The place had to be closed for three or four months.

4. "During five years 10,000 deliveries were effected in the London metropolitan hospitals, of whom 129, or one in 77½, died."

5. "On summing up the results of several continental lying-in hospitals (the years are not stated), Dr. Barnes found that, out of 14,253 deliveries, 247 women died, which was one in 56¾."

6. We learn from Sir William Wilde's valuable work on the Vienna institutions that the lying-in hospital there admitted 4,453 women in one year, and that 179, or one in 25, died—a mortality which he attributes to puerperal fever. "This affection," he observes, "makes fearful ravages in the hospital annually. It is not considered by the medical men as infectious, and therefore no precaution is ever taken to prevent its spread, by cleaning, whitewashing, or shutting up wards when it has particularly prevailed for any length of time; nay, more, I have seen a newly-delivered woman placed in a bed, yet scarcely cold, in which a death from puerperal fever had taken place not two hours before."

This institution, though the most celebrated and extensive of its kind in Europe, must, under such management, be a curse, instead of a blessing, to the Viennese. In the nine years ended 1838, it admitted 32,679 non-paying labour cases; the mortality is not given; but if it were, an average of one in 25, as in 1838, it is likely that, at least, 1,200 women must have died in it more than would have died had they been attended at home, or had there been no lying-in hospital in Vienna.

7. "In the years 1861 and 1862, 705 women were confined in the Glasgow Lying-in Hospital, and 13, or one in 54½, died. This hospital contains only 24 beds."

8. "During the seven years ending 1862, 1,092 labour cases were conducted in the Liverpool Lying-in Hospital, and eleven proved fatal to the mother," which was a mortality of one in 99. "This hospital is small, clean, and apparently well conducted, and is intended for the reception of a small number of cases of diseases of the female organs, and for the delivery of *respectable* married females."

9. The Dublin Rotundo Hospital Statistical Table shows that 8,224 births took place in that institution in the seven years ended 1864, and that 252 mothers died, which is one in 32⅖ births. During these seven years 3,142 deliveries took place in the Coombe Lying-in Hospital, and 45, or one in 70, died.

MORTALITY OF MOTHERS UNDER HOME ATTENDANCE.

1. Mr. Simon states, on the authority of Dr. Barnes, that, during five years, 18,751 women were delivered by the Royal Maternity Charity in London, and that of these 56, or one in 334, died.

2. Mr. Simon also cites the authority of Dr. Hugenberger of

St. Petersburg, that in 15 years 207,582 women were delivered in that city at their own homes, with a mortality of 1,453 mothers, which was one in 143.

3. In the years 1861 and 1862, 729 women were attended at home from the Glasgow Lying-in Hospital, and 10, or one in 73, died.

4. During the seven years ended 1864, 617 women were attended from the Dublin Rotundo Hospital, and ten, or one in 62, died.

5. During the same seven years the Coombe medical officers attended 4,473 at their homes, with the loss of 20 mothers, or one in 223.

Since the foregoing was written I have seen the article, "Etude sur les Maternites," in the October number of the *Annales d' Hygiéne Publique*, in which the editor reviews a work by Dr. Leon Le Fort, and shows that he and others have lately published a vast mass of carefully-collected returns to prove three propositions.

"Considered altogether, Dr. Leon Le Fort's work is composed of three *essential* parts, or propositions.

"1. The women who are confined in the hospitals and maternities not only die there in much greater numbers, but die in a quite unusual proportion compared with those who are confined in their own dwellings.

"2. The cause of this frightful mortality must be attributed to puerperal fever, *and it is by contagion that this destructive scourge exerts its ravages.*

"3. It is absolutely necessary to take serious hygienic measures; and if the malady cannot be prevented from breaking out, it is, however, possible to oppose barriers to it, and to say:—'Thou shalt go no further.'"

Amongst the voluminous returns referred to by the editor are the following:—

"Of 888,312 women confined in maternities or in hospitals, 30,594 died; and of 934,781 deliveries, effected in the towns, 4,405 were followed by death. The mortality was, in the first case, one woman out of 29 confined; in the second case, it was only one out of 212."

These returns appear to confirm Mr. Simon's statement that "the

mortality in lying-in hospitals is almost invariably greater than among women delivered at their own homes;" and a careful inquiry respecting the cause or causes of this certain relative mortality will show that it is more immediately attributable to the greater occurrence of puerperal fever, and of other contagious febrile diseases in hospitals, than in home attendance.

It would be reasonable to ask, how it happens that a greater relative proportion of women die in lying-in and other hospitals, in which great attention is paid to ventilation and other hygienic conditions, and over which highly educated and experienced medical men preside, than die at home, in residences many of which are comparatively wretched and ill-ventilated, and with far less comforts to carry them through their confinement. Until recently the cause, or causes, or the extent of their effect, was not, I believe, well known. The fact is thus accounted for by Mr. Simon in the before-mentioned report. He observes:—"The admission or exclusion of infectious diseases forms a very important item in regulating the mortality of hospitals.

"There are certain affections, especially eruptive fevers, which are capable of being conveyed from the infected to the healthy by the breath, or other emanations or secretions of the body, and whenever or wherever (except under certain conditions) anyone comes under their influence, he runs the risk of being infected by them; all this, of course, is a mere truism, but it is important to enunciate it clearly. Such a spread of disease proves, of course, the presence of a poison; it shows, what everyone would admit, that *the admission of any infectious case involves a risk; it raises the question as to the propriety of exposing anyone to such a risk who comes to a hospital for cure.*

"All surgeons attached to large metropolitan hospitals are aware that their operation cases are apt to be occasionally carried off by the supervention of erysipelas, pyæmia, or hospital gangrene, *or some allied unhealthy form of inflammation.* They know well that they may go weeks, months, and even years, without losing a patient from any of the above causes, though occasionally an isolated case may occur, and that now and then some one of these secondary diseases prevails for a time, endemically, attacking operation case after operation case, until the ward, or wards, which have been the seat of the disease, have been emptied, and thoroughly ventilated and cleansed; and that, *after apparently ample precautions of this kind have been carried into effect, the re-occupation of the*

emptied beds may be the signal for the renewal of the disease. It is generally considered that the occurrence of these secondary forms of disease, and especially their frequent reccurrence, or their prevalence in an endemic form, is an indication of unhealthiness in the hospital or in that part of it in which they manifest themselves. There can be little doubt that the development and spread of these diseases are associated with defective hygienic conditions, but there can be little doubt that these sanitary defects are not the sole cause of the outbreak of these unfortunate complications; for it seems to be a tolerably well ascertained fact that, in places where they become endemic, there must be (not merely to allow of their spreading, but in order to beget them), an accumulation of open sores, producing what is termed a *traumatic* atmosphere.

"We have, finally, to say a few words with regard to the results of midwifery practice in wards in hospitals specially devoted to the reception of pregnant women. The lying-in hospitals of England and Scotland are, for the most part, small and insignificant institutions; indeed, the only lying-in hospital of much importance in Great Britain is the Rotundo Hospital, Dublin. In this admirable institution—admirable alike for its construction and its arrangements—the results of midwifery practice are not unsatisfactory. Though occasional cases of puerperal fever are not uncommon in the Rotundo, epidemic outbreaks are comparatively rare; and when they do occur, are regarded as due rather to some epidemic influence than to spread by contagion. So strongly is this opinion held that *sporadic cases arising in the hospital are never (except when they are about to die) separated from the other labour cases; and it is asserted that no ill consequences whatever ensue from this practice.* In the epidemic referred to (that of 1861-2, in which the mortality was 8·3 per cent., 46 were attacked with puerperal fever, and 28 died. and eight were attacked with scarlet fever, and seven died) there was evidently some close connexion between the prevalence of puerperal fever and the prevalence of scarlatina. The outbreak, therefore, furnishes an example of the well-established fact that scarlet fever, typhus, and other exanthemata are not only peculiarly apt to attack puerperal women exposed to their contagious influences, but prove peculiarly fatal to them, and that these poisons constitute a fruitful source of contagious forms of the so-called puerperal fever." Mr. Simon continues:—"But though in Dublin it seems to be questioned, there can, we believe, be little doubt that puerperal women have many points of resemblance to operation

cases, and that the presence of a *traumatic atmosphere*, such as is created by the accumulation of large numbers of women recently confined, is attended with many of the dangers which certainly attend a similar atmosphere in a surgical ward. We do not mean that the traumatic atmosphere in itself creates disease, but we believe that puerperal women are peculiarly susceptible to those poisonous influences which, among surgical patients, produce erysipelas, pyæmia, and the like; and that when those poisonous influences are present, the traumatic atmosphere favours their injurious operation. It need scarcely be said that a very large proportion of puerperal fever cases are pyæmia, originating in some inflammatory condition of the uterine walls, and that it has been over and over again proved that this particular form of the disease may be conveyed by the medical attendants, by the nurses, and by dressings, and the like.

"Now, the presence in any institution of the former variety of disease, that relating to exanthemata, must depend on the entrance into that institution of some form of exanthematous poison. It is an accident, therefore, which can only be occasional, but which can scarcely fail to occasionally occur; *and when it does occur, in large institutions specially, is extremely likely to produce grievous consequence.*

"It is certain that this disease (puerperal fever), like pyæmia, in surgical wards, becomes at times, and from similar causes, *endemic* in hospitals, and that decided measures are then needed for its eradication. There is no doubt that sporadic cases of puerperal pyemia occur in other British maternity hospitals besides the Rotundo; but these institutions are on so small a scale, and can be so soon emptied, when any sign of danger manifests itself, that anything amounting numerically to an epidemic ought scarcely to arise; still, we believe that all the London maternity hospitals have had, from the prevalence of puerperal fever, to be closed on more than one occasion. The experience of the York-road Lying-in Hospital, more, however, formerly than of late years, has been particularly unsatisfactory. In Paris it is a striking fact, that the results are (for almost every hospital) analogous, in many respects, to those of surgical operations. The appended tables show how high the mortality among lying-in women is universally in the Paris hospitals, and, at the same time, how very largely this high mortality depends on 'puerperal fever and puerperal peritonitis,' which terms, doubtless, signify (since deaths from eruptive fevers are distinguished) essentially pyæmia.

"It appears, however, that the mortality in lying-in hospitals is almost invariably greater than that amongst women delivered at their own houses. A mortality of between one and two per cent. is, in ordinary years, that occurring in the Rotundo. In small and well-conducted establishments, like those of Liverpool and Glasgow, the mortality is usually about the same; and, on the whole, that of the lying-in hospitals in London is probably not very different. A death-rate of one or two per cent. may not appear very alarming, but when we know that the per centage of deaths out of hospital is considerably less than this, often not exceeding 0·3, or even 0·2 (one in 300, or one in 200), we are led to suspect that the excess of mortality above these numbers may depend upon hospital influences.

"Whenever surgical cases presenting open sores are received, hospital diseases, such as erysipelas, pyemia, and phagedena, are liable to arise. The liability of these affections to originate and to spread is considerably influenced by concentration of traumatic atmosphere.

"Puerperal women are exposed, in hospitals, to two dangers. Like patients after surgical operations, and for the same reasons, they are peculiarly susceptible to the influences of those conditions on which pyemia and erysipelas depend; they are also highly susceptible to the poison of contagious fevers.

"The accumulation of puerperal women in a ward creates a traumatic atmosphere, with all its risks, and furnishes material on which the poison of an infectious disease, accidentally introduced, acts with terrible violence. *But labour is a natural process, and only in a comparatively small number of cases calls for the special exercise of skill in nursing or medical treatment. There are, therefore, generally, in the case of puerperal women, none of those special objects to be gained by becoming the inmates of a lying-in charity, which the diseased and maimed seek by admission into general hospitals.*"

These statements and opinions appear to be fully confirmed by an account which Dr. Telford, one of the Rotundo Hospital assistants, gives, in the October number of the *Dublin Medical Press*, in reference to the mortality caused by puerperal fever in that institution in the month of April last. He states:—"The epidemic of puerperal fever which visited the Lying-in Hospital in April last is deserving of notice. The suddenness of its invasion,

the extreme rapidity with which most of the cases terminated, and the great mortality in the numbers attacked—16 dying out of 17—mark this outbreak as one of very unusual virulence. The hospital, for the time of the year, was in a fair state of health. During the month of March there were 117 cases delivered, and five died."

"On the 23rd of April a patient, who had been delivered on the 8th inst., died. On the evening of the 23rd a woman, who had been confined the day before, had a rigor, and died next day. In the same ward with the last patient were four others, three of whom were attacked, all died, none of them living more than twelve hours after the first symptom.

"Thus, out of a total of 25 patients who were in the lying-in wards at the time of the outbreak, seventeen were attacked and sixteen died. We had a patient in the chronic ward suffering from membranous dysmenorrhea; she was carried off in three days also."

The hospital was then closed, and "was whitewashed, fumigated, and painted. Since then we had 145 deliveries, and only one death, from placenta previa."

Dr. Telford continues:—"A deal has been written as to whether puerperal fever is infectious or not, and very opposite opinions held by some of our most distinguished physicians. In its epidemic form we believe that almost every patient brought within its influence will be attacked, but that does not prove it to be infectious, as one can hardly call it infection where such a number of patients are attacked simultaneously. It is *the custom in this hospital to have patients suffering from this disease in the same ward with others; in fact, we never remove them until we anticipate a fatal termination*, and then more for the purpose of saving the other patients' feelings than to guard against infection. Still we never find the disease communicated from one to the other.

"The poison which produces puerperal fever has been supposed by some to be identical with that which produces erysipelas. This was, to a certain extent, borne out by one of our wardmaids, who had been in constant attendance on the patients, being attacked with erysipelas, of which she died. I may also state that erysipelas was very prevalent in the city at the same time, and, in some of the surgical hospitals, *the surgeons were obliged to defer any operation proceedings.*"

Whilst giving Dr. Telford full credit for his valuable paper, and for his belief in the opinions that are therein expressed, I hope a few remarks on some passages in it will not be considered uncourteous or inconsistent with the subject. I would ask how can a lying-in hospital be considered in a state of fair health if the five deaths that occurred in it in the previous month, or the most of them, died of puerperal fever? Dr. Telford doubts that the disease was caused by infection; which opinion appears to be that of the medical authorities of the hospital, as they "leave patients suffering from puerperal fever in the same ward with others, and never remove them till they anticipate a fatal result." Then, as it may be inferred that some were affected in March, the disease cannot have been sporadic (which is defined in Dunglisson's Medical Dictionary to be "diseases which supervene indifferently in every season and situation, from *accidental* causes, and independently of any *epidemic or contagious* influences"); and if it be neither contagious nor sporadic, it must have been endemic (or owing to some peculiarity in the situation or locality). But it is difficult to understand how an institution which is truly described as "admirable in construction and in its arrangements," and in which great attention is paid to cleanliness, ventilation, &c., can have been so very malarious that seventeen lying-in women, separated as they must have been in different wards, would become so suddenly affected with one particular febrile disease; and, as I have frequently gone through this fine institution, officially and otherwise, and have always found it in a satisfactory state, I cannot believe that the puerperal fever described by Dr. Telford was either sporadic or endemic. This is a question of so much importance in the safe conducting of lying-in hospitals, that if Mr. Simon's opinion, as well as that of "some of our most distinguished physicians," as admitted by Dr. Telford, that puerperal fever is contagious, be well founded, it follows that if an infectious disease spreads in the wards of the Rotundo, or any other hospital, there is a *risk* that others coming under its influence will be affected with it; and, therefore, "that the question is raised as to the propriety of exposing anyone to such a risk who comes to an hospital for cure," or merely to be confined, as it may be assumed was the case with the parties described by Dr. Telford.

In reference to the admissions into lying-in hospitals, Mr. Simon observes:—"It seems to us, from considerations which are discussed in the section on the "Health of Hospitals," that *they are undesirable*, and that the appropriation of wards to the reception of

puerperal women in general hospitals is especially to be condemned. It is, of course, possible that certain circumstances may (*as is said to be the case in Dublin*) render a lying-in hospital, like a workhouse, a matter of necessity; and it is also possible that certain cases in which special dangers are to be apprehended at the time of delivery, would be safer in an institution where they could be more carefully watched than at home; but these are exceptional cases, and do not furnish any valid argument against the general opinion we venture to express."

It would seem, from the words ("as is said to be the case in Dublin") in the above quotation, that Dr. Bristow and Mr. Holmes, who in 1863 examined and reported to Mr. Simon on the Dublin hospitals, understood that extensive hospital accommodation for the delivery of lying-in women was a *necessity* in Dublin, and that without it much loss of life and other serious consequences must result. It might have been difficult to confute that view before the workhouses were established, as there were no reliable data to show what amount of accommodation would have been sufficient; but now, when every woman of ill character, and every woman who has no fixed residence, can get admission as a pauper into the workhouse, that *necessity* does not seem to exist, beyond the exceptional classes before alluded to.

The large number of deliveries that have taken place in the Rotundo has been adverted to; and it would seem, from an observation by Mr. Simon, that Dr. Bristow and Mr. Holmes understood that circumstance to be owing to the poverty of the women of the working classes in Dublin, which poverty rendered them unable to meet the expense attendant on their lying-in. But it cannot be reasonably supposed that one-third, or one-fourth, of the child-bearing women of Dublin were, or are, so poor as to be unable to bear the ordinary expenses of their confinement. In the seven years of Dr. Labatt's mastership, for instance, the enormous number of 21,867, or more than 3,000 yearly, were delivered in the Rotundo, which was more than one-third of all the births of rich and poor in Dublin; and though latterly the number is much less, at least one-seventh of all the deliveries in Dublin have taken place in the Rotundo in the last ten years. Every intern pupil of the hospital knows that many, in sufficiently comfortable circumstances to meet the expense of their lying-in, go into that institution, partly to be under good professional treatment, but partly, also, to save the

expense of their confinement, which they are enabled to effect by the facility with which they are admitted into it, as will be perceived from the following evidence, given by the then master, Dr. Shekleton, before the House of Commons Committee on Dublin Hospitals, in 1854:—

Q. "Do you admit every woman who presents herself at the door for admission?" *A.* "Yes, if she come in labour to the gate, there is no question asked."

Q. "Do you ever ask any questions with respect to women, if they come more than once, to ascertain whether they really are objects of charity?" *A.* "No."

Q. "If they were to come half-a-dozen times would you make any enquiry?" *A.* "We never refuse a woman admission; *we have no power to do so.*"

Q. "Whether she is poor or not?" *A.* "No."

Q. "You take it for granted that she is poor?" *A.* "Yes."

Q. "There is no check upon a woman coming into the hospital and delivered of an illegitimate child?" *A.* "None whatever."

Q. "Do you ever take any steps to inquire into the condition or life of the husband?" *A.* "Never: R. C. clergymen generally recommend the patients."

Q. "Is there no means of checking a woman coming into the hospital regularly to be delivered of an illegitimate child?" *A.* "None whatever."

Q. "The same woman might come in six times in a dozen years and be delivered of an illegitimate child?" *A.* "Certainly."

Q. "If you discovered that, would you refuse her admission?" *A.* "No; we have no power of refusal."[a]

Q. "Do you ever refuse admission to a woman who comes, in labour, to the hospital?" *A.* "Never."

Q. "Is the hospital restricted to married women?" *A.* "We never make inquiries; they all pass as married women whether they have husbands or not."

During my pupilage in the Rotundo, in 1813, many of this non-paying class were admitted, whose appearance and dress indicated no necessity for gratuitous hospital treatment; and many, too, died in it of puerperal fever which, it is very likely, most

[a] The hospital charter appears to give full authority to the governors to make a by-law to meet the case.

of them might have escaped had they been confined at home. Dr Shekleton's evidence shows that the abandoned, as well as the virtuous, could take advantage of the hospital, and that no rule or by-law existed to check the repeated admissions of women of the former class, and I am not aware that any now exist. It is true, as before observed, that when, and long after, the hospital was founded, there was no workhouse to which that immoral class could have recourse when about to be confined; but, for many years before that evidence was given, they were admissible into all the Irish workhouses as paupers.[a] The *neccssity*, therefore, that existed for the admission of this immoral class had long ceased in 1854, and their admission cannot, or could not, be fairly deemed an act of necessity nor of charity. Viewing the subject in a moral sense, it appears likely that such women would be more checked in their career by being compelled to have recourse to the workhouse, where they would have less, though still sufficient, comforts than if received into a superior institution where the stigma of their habits is much concealed. And in reference to the charter of the Rotundo Hospital, it is evident that it was not intended that the hospital should be available for the class in question. The words are:—"In many parts of our said kingdom, and especially in the city and suburbs of Dublin, there are always many poor and distressed women great with child, who, by the sickness, death, absence, neglect, or extreme poverty, *of their husbands*, wholly depend on their own daily work for even common necessaries, and are, on lying-in, frequently both themselves and their infants lost, not only by the difficulty of obtaining the care of some skilful person, but even through the want of such covering, lodging, and sustenance as are necessary for women in that condition, many instances of which could be produced, especially in the case of wives and widows of soldiers and sailors of our army and navy."

These words, I think, appear to imply that the Rotundo was intended to receive one class chiefly—such *wives* and widows as, from any of the circumstances so minutely described in the charter, are unable to provide the necessaries attendant on their confinement. I believe that, on the contrary, many who are fully able to meet such expense are admitted. I have known the wives of servants,

[a] During the six years ended 1865, 16,310 births took place in the Irish workhouses, and 124 women, or one in 133, died. The mortality was highest in 1863—one in 90; and lowest in 1864—one in 190.

both husband and wife having good wages, and money to spare, to avail themselves of the Rotundo; and I infer, from the words of the charter, that neither such parties, nor those of the immoral class, were intended to be relieved in it, unless when an exceptional case might require careful medical watching and professional treatment.

Many doubt that it is judicious to give too great facilities to women of this comparatively comfortable class to avail themselves of a public charity, as it is found that it also gives them the habit of craving from their more wealthy neighbours that with which, by thrift, they could readily supply themselves, and that it lessens that spirit of independence and foresight which it is desirable to encourage.

Another view of this subject appears to require the serious consideration of lying-in women, and of the authorities of hospitals into which they are admitted, of which, perhaps no better illustration could be given than is afforded by Dr. Telford's letter. He states:—"Thus, out of a total of twenty-five patients who were in the lying-in wards at the time of the outbreak, seventeen were attacked, and sixteen died." If, suppose eight of these sixteen could have afforded to meet the moderate expense of being confined at home, under professional attendance from one of the lying-in hospitals, or by the dispensary medical officers, the whole of them, or the greater part, would probably have been saved; for, I find by the Registrar-General's Return, that the mortality from metria, for the five weeks ended 5th of May, was only seventeen, whereas that returned by Dr. Telford is sixteen. The Rotundo was closed on the 23rd April; and there is no return of deaths from puerperal fever by the Registrar-General in the week ended 5th May. It would seem, therefore, that only one died of that disease in the registration district outside the Rotundo—at least, if the returns made by the several registrars be correct.

When loss of life is concerned, another illustration of the caution with which those who can afford the cost of home confinement (unless for some exceptional reason) should desire to be confined in hospitals. During the three first years of Dr. Labatt's mastership in the Rotundo, 10,248 deliveries took place in it, and only fifty-seven women, or one in 180, died; but in the next four years of his office, 252 died out 11,628, which was one in 46. This higher mortality must have been chiefly caused by puerperal and other fevers; for it is not likely that an able midwifery practitioner

would have had more deaths from the accidents of childbirth in the last years of his mastership than in the early years; but the contrary, as his experience had much increased. Now, if we only assume that about the half of that 11,628 were of the comfortable class that could afford to be confined at home, and had been confined there, eighty-six mothers would have been saved, even though the mortality were one in 150; but even if it were so high as one per cent., sixty-eight lives would have been saved. Several similar instances could be given.

We have the high authority of Drs. Sinclair and Johnston, who were assistants in the Rotundo, and who have published a valuable work on practical midwifery, that even those who have had natural deliveries were not safe from puerperal fever. They state that sixty-seven mothers died in the Rotundo, in their time, "whose deliveries had been purely natural," and that forty-one of them died of puerperal fever. Had these been confined at home, some might, perhaps, have had that disease; but it is not likely that so many would; and, as their labours were natural, they did not go to hospital on account of malformations, or from apprehension of difficult labours.

The high mortality in lying-in and other hospitals, and its frequent recurrence, will be perceived by the Table at page 25, which shows that in the Rotundo it has been very low in some years, and again very high; it has occasionally continued low for two, three, four, five, and six years, and again become continuously high for ~~five~~ 2, 3 more years. It will be seen that in some years the mortality ranged from one in 145 deliveries to one in 233; and that in several others it was from one in 52 to one in 14. These marked extremes are scarcely explicable, unless on the supposition of the recurrence of puerperal or other febrile diseases in the hospital; as it is not likely that under the able practitioners who attend it, and have always done so, such a high mortality would have been caused year after year by the accidents of childbirth, such as ruptured uterus, hemorrhage, &c., &c., which usually influence the mortality of lying-in women.

Applying the foregoing returns and observations to the Rotundo Lying-in Hospital, as it is the most commodious in Great Britain or Ireland, and has the most ample and certain funds, the question arises, what causes this occasional, but frequent high mortality in an institution in which cleanliness and ventilation are carefully observed, the comforts of the patients well attended to, and over

which very able and eminent midwifery practitioners preside? All these elements in the condition of the hospital would naturally indicate a certain low mortality, at least as low as that which takes place outside, where these comforts and medical superintendence are not so much available. The answer would appear to be, that the chief cause is that, which is stated by Mr. Simon and Dr. Le Fort to produce a higher mortality of parturient women in lying-in and other large hospitals, namely, the occasional introduction into them of contagious febrile diseases, particularly scarlatina and typhus fever, and thus, though indirectly, puerperal fever is produced. The introduction of such contagious diseases into the Rotundo is the more likely to take place, as fever usually, and scarlatina frequently, prevails in Dublin; and it may be occasionally expected that a woman who comes to the hospital to be confined is not only in actual labour, but is also affected, though not perceptibly, with fever or scarlatina.

The published reports of the board of superintendence of Dublin hospitals throw much light on this subject. Previously there were no data to show what proportion of the mortality that took place in either of the Dublin lying-in hospitals was caused, year after year, by puerperal and other fevers, and the same was the case in respect to the extern attendance given by these institutions. Those reports show that in the seven years ended March, 1864, of 258 woman that died in the Rotundo, 131 died of puerperal fever, and of 45 that died in the Coombe, 15 died of it; and that this disease was a chief cause of the mortality in the Rotundo in each of the seven years.

As there is no doubt that the Rotundo authorities have considerably exerted themselves to improve the sanitary condition of that fine institution, and yet that a high mortality, chiefly from puerperal and other fevers, which are preventible diseases, takes place in it, it may not be amiss to observe that for several years the rate of that mortality has increased in it. Before 1854 the mortality ranged from one in 214, the lowest in any year, to one in 32½, the highest—the average of the previous long period being one in 82; since 1854, included, the mortality has ranged from one in 64, the lowest in any year, to one in 13⅔, the highest in any; the average of this twelve years being one in 37⅓—facts, of which, possibly, the hospital authorities are not aware, and which can be only ascertained on a careful examination of the statistics of the institution.

We have also evidence in the returns of the board of superintendence that infectious fevers, as scarlatina, typhus, &c., are occasionally introduced into the Rotundo, and that even pyemia has prevailed there; and it is difficult, indeed, to conceive how, under the arrangement described by Dr. Shekleton, their occasional introduction can be prevented. As before observed, a woman, on application, may be in the incubation stage of scarlatina, or of typhus; and even if her rejection were to depend on that circumstance being perceived by the master or assistant, he might not *then* be able to ascertain it. She is therefore admitted, and is placed in a ward along with other labour cases; it is only in a day or two that she is found to be ill of scarlatina or typhus, and then, whether delivered or not, she is in an unfit condition to be removed to a fever hospital. But even if so transferred, or if put into a separate ward intended for patients affected with contagious diseases, she has been long enough among the labour cases to introduce a poison which, in the existing condition of the labour patients, causes puerperal fever, a disease, of which Dr. Leon Le Fort, as well as Mr. Simon, observes that "*it is by contagion that this destructive scourge exerts its ravages.*"

Whether the puerperal fever that caused such mortality last April was preceded by the introduction of any contagious disease does not appear, but it is certain that a still greater mortality was connected with scarlatina in the year ended March, 1862, in which 2 labour cases died of typhus fever, 11 of scarlatina, 4 of pyæmia, and 39 of puerperal fever. Referring to the mortality of that year, Dr. Bristow, who examined the hospital, observes:—"The outbreak furnishes an example of the well established fact that scarlet fever, typhus, and other exanthemata, are not only peculiarly apt to attack puerperal woman exposed to their contagious influence but are peculiarly fatal to them, and that these poisons prove a frightful source of contagious forms of the so-called puerperal fever."

It seems to follow from the foregoing data and observations that one mode of lessening the mortality of lying-in women in hospitals is, to limit the admissions to the classes that more particularly require hospital treatment, and to give extern attendance to those that do not. This opinion has been expressed in reference to the Rotundo by four different boards of commissioners, which have examined and reported on it, and is expressed by the commissioners appointed to report on the Dublin hospitals in 1855.

They observe:—"We are of opinion that the practice of attending on patients beyond the walls of the hospital is not sufficiently followed in this institution. On this point we concur in the opinion which was expressed by the Board of Health in 1820, and which is referred to in the Reports of the Commissioners of 1830 and 1842. We consider this subject to be worthy of more attention than it has hitherto received, and that the principle of attending on extern lying-in cases, *especially, during the prevalence of puerperal fever*, should be acted on as extensively as possible." The reports of the Board of Superintendence of Dublin Hospitals show that this recommendation has not been much acted on, as it appears by them that, in the year ended March, 1862, of 978 labour cases that were admitted, 80, or one in 12½ died in the hospital—39 of puerperal fever, and that only 144 had home attendance; and that in the succeeding year 1,040 labour cases were admitted, and 41, or one in 25⅓, died, of whom 29 died of puerperal fever, and that only 2 had extern attendance in the year.

THE MORTALITY OF CHILDREN IN LYING-IN HOSPITALS.

We learn from Sir William Wilde's work, before quoted, that out of 23,322 births which took place in the Vienna Lying-in Hospital, 1,482 children, or one in 15⅔, died before the ninth day, and, that, of 4,453 births in that institution, in 1838, there died 200 children, which was one in 21 births.

The census report, of 1851, contains a table, which shows that of 35,131 births that had taken place, in ten lying-in hospitals, in Ireland, 2,258 children died, which was an average of one in 15½ births.

The census report, of 1861, shows that in the ten years then ended, 25,249 children died in Ireland, under one month old, which is a mortality of one in 55 births. I am not aware of any return that shows the mortality of infants under, about, ten days old, in the whole population; but if it be one in 55 at a month, it must be a lower mortality within ten days, as many die within the other twenty days.

The printed statistical table, of the Rotundo Hospital, shows that 177,708 children were born alive in that institution and in the old hospital; and that 6,745 of them died in it, that is, in the few days, generally 8 or 10, during which the mothers remain in it. This was a mortality of one in 26⅓ children born alive. The proportions in which this mortality took place under the different

masters is very remarkable as will be perceived by the following table.

Table showing the Mortality of Children Born in the Rotundo Lying-in Hospital, under the Different Masters, and the Proportion of such Mortality to the Number of Children Born Alive.

Masters	No. of children born alive during the Mastership	No. of still-born children	No. of children died in hospital	Proportion of children died in hospital	Ranging from ( ) to ( )	Proportion of still-born children to all children born in hospital
1st	891	46	115	1 to 5⅔	1 in 8 to 1 in 5⅔	1 in 26⅓
2nd	3,657	197	708	1 to 5⅙	1 in 6½ to 1 in 5	1 in 19⅔
3rd	4,552	258	892	1 to 5 1/16	1 in 6½ to 1 in 4	1 in 18⅔
4th	5,735	410	921	1 to 6¼	1 in 8 to 1 in 5	1 in 22⅓
5th	6,823	580	553	1 to 12⅓	1 in 25 to 1 in 7½	1 in 17½
6th	10,294	600	421	1 to 24⅓	1 in 36 to 1 in 22	1 in 18⅘
7th	10,993	974	401	1 to 23½	1 in 40 to 1 in 20½	1 in 23
8th	14,096	1,063	336	1 to 42	1 in 70 to 1 in 25	1 in 15½
9th	17,988	851	403	1 to 44½	1 in 62 to 1 in 28	1 in 18
10th	21,116	1,535	399	1 to 53	1 in 61 to 1 in 41	1 in 14⅔
11th	12,269	777	154	1 to 79	1 in 136 to 1 in 61½	1 in 17
12th	15,627	1,017	157	1 to 99	1 in 176 to 1 in 75	1 in 16⅓
13th	12,672	651	73	1 to 172	1 in 469 to 1 in 93	1 in 20⅓
14th	13,035	861	151	1 to 86	1 in 193 to 1 in 50⅔	1 in 16
15th	12,828	1,044	340	1 to 37⅔	1 in 66 to 1 in 32	1 in 13⅓
16th	8,707	711	312	1 to 28	1 in 44 to 1 in 20	1 in 13
17th	2,997	263	78	1 to 38	1 in 56 to 1 in 22¼	1 in 12⅓

Why that mortality should be from one in 4 to one in 7½, under the five first masters, and only one in 86, 99, and 172, under others, might suggest grave considerations. The subject appears to deserve more attention than, so far as I am aware, it has

yet received. Dr. Clarke's improvement in the hospital ventilation would seem to have reduced the mortality from one in 12½ to one in 24½; but it appears remarkable that the mortality of women under him was one in 87, being in the time of his predecessors only one in 131, and in that of his successor one in 93⅔. It would be curious if an improvement that would be beneficial to infants should not also be useful to the mothers.

STILL-BORN CHILDREN.

We also learn from Sir William Wilde's work that 278,613 births that were registered in twelve cities in the Austrian dominions, and that 9,697 of the children were still-born, which was an average of one in 36⅔ births. The proportion ranged from one in 59¾ in one district to one in 21 in another. But in Trieste it was so low as one in 155. In the Vienna Lying-in Hospital 939 were still-born, in 23,413 births, which was one in 24 $\frac{9}{10}$.

The Rotundo statistical table shows that 186,209 births took place in the old hospital and in the Rotundo, up to the end of 1864, and that 11,289[a] were still-born, which was in the proportion of one to 16½ births, ranging from one in 22⅓, under one master, to one in 12⅓ under another.

A question of considerable importance cannot be overlooked, namely, by which mode of attendance is medical and obstetric science best promoted. Doubtless, were the advantages of both equal, or nearly so, the greater and the more exact experience obtained in hospitals would decide in their favour, but, if there be far greater loss of life attendant on that mode, the question cannot arise. That there is far greater loss of mothers and of children in hospitals is now an admitted fact; but, though a much greater proportion may get home attendance, there will still be a sufficient number (of the exceptional cases that require hospital treatment) to afford ample materials for the instruction of pupils, and for affording information to the medical attendants.

P.S.—I beg to observe, that all the data and other sources of information referred to in this paper were obtained from published documents, which are as accessible to others as they are to me.—D. P.

[a] The total is 10,447, but 11,289 is the number.

Statistical Table, referred to in page 19, *3rd paragragh :—*

Year	No. of Births	No. of Women Died	Proportion of Deaths to Births	Year	No. of Births	No. of Women Died	Proportion of Deaths to Births
1760	556	4	1 to 139	1819	3,197	94	1 to 36
1761	521	9	1 to 58	1820	2,458	70	1 to 35
1763	488	9	1 to 54	1825	2,740	26	1 to 105
1764	588	12	1 to 49	1826	2,440	81	1 to 30
1766	581	3	1 to 193	1833	2,138	12	1 to 178
1767	664	11	1 to 60	1834	2,024	34	1 to 60
1768	655	9	1 to 41	1835	1,902	34	1 to 56
1772	704	4	1 to 176	1836	1,810	36	1 to 50
1773	694	13	1 to 54	1838	2,126	45	1 to 47
1774	681	21	1 to 32	1844	2,176	14	1 to 155
1782	990	6	1 to 165	1845	1,411	35	1 to 40
1783	1,167	15	1 to 78	1846	2,025	17	1 to 119
1787	1,374	10	1 to 134	1847	1,703	47	1 to 40
1788	1,469	23	1 to 64	1848	1,816	35	1 to 52
1789	1,435	25	1 to 57	1849	2,063	38	1 to 54
1790	1,546	12	1 to 129	1853	1,901	17	1 to 111
1791	1,602	25	1 to 64	1854	1,943	37	1 to 52
1792	1,683	10	1 to 163	1855	1,060	35	1 to 30
1793	1,757	19	1 to 81	1856	1,600	23	1 to 64
1800	1,837	18	1 to 102	1857	1,509	33	1 to 46
1801	1,725	30	1 to 57	1858	1,086	30	1 to 36
1803	2,028	44	1 to 46	1860	1,404	26	1 to 54
1811	2,561	24	1 to 107	1861	1,135	59	1 to 19
1812	2,766	43	1 to 64	1862	800	58	1 to 14
1813	2,484	62	1 to 40	1863	1,228	32	1 to 38
1817	3,473	32	1 to 108	1864	1,184	26	1 to 45½
1818	3,539	56	1 to 64				