

of contagion, it becomes necessary that some other provision (out of the house) should be either immediately made, or at least kept in view, in every such instance."\*

The inspectors point out, further, the necessity of properly qualified nurses being provided; judiciously observing that, as cholera runs its course most rapidly,

"the loss of an hour may compromise life; and throughout the disease the most careful and attentive nursing of the sick is of the utmost importance to the cure; many lives are lost in cholera through the mere endeavour of the patient to sit or stand erect, so exhausted are the powers of life in the latter stages of this disease."

Very full and precise recommendations are also given, both in respect to each individual workhouse and generally, for effecting sanitary improvements, and for maintaining the health of the inmates, under the well-grounded apprehension of a visitation of cholera.

In the month of January, 1849, the General Board of Health instructed Dr. A. Farre and myself to visit the metropolitan workhouses for the purpose of ascertaining (1) the general state of their inmates, especially in reference to the existence of cholera and diarrhoea; (2) the general arrangements of these establishments in regard to sanitary measures and precautions; and (3) the extent to which the recommendations contained in the Report of 1848, above noticed, had been observed or neglected. At the period when this inquiry took place, cholera had been existing in London some months; several severe outbreaks had occurred, and many hundred deaths had taken place. But, notwithstanding this, it will appear by the following extracts from Dr. Farre's and my Report that the various measures recommended a year before had been very imperfectly realised:—

"The third point of inquiry upon which we have to report relates to the extent to which the recommendations of the inspectors appointed, at the desire of Sir George Grey, to examine and report on workhouses, have been regarded or neglected. Upon this particular, we find, that, with a few exceptions, which we shall here notice, these recommendations have either not been attended to, or have only recently been brought under consideration, and are so partially carried out as to extend to one or two particulars only, whilst others, and often the principal ones, have been neglected. But in no instance, with the solitary exception to be mentioned, does it appear that the authorities have originated those improvements which the apprehension of an epidemic invasion would have justified, and which the recommendations of the Report, whilst they were intended to be suggestive in matters of detail, were also calculated to put forward for general consideration."

After enumerating those workhouses in which improvements had been more or less completely effected, it is stated that in the remaining houses,

"either the improvements are so slight as not to justify any mention of them here, or else in every other instance no change whatever has taken place; so that for these, the Report of 1848 appears to have remained a dead letter."†

\* *L. c.*, p. 45.

† Report on Metropolitan Workhouses, p. 28.

The subjects most generally neglected, as regarded the interior of the workhouses, were those most important with respect to the maintenance of health—namely, ventilation and defective arrangements as to privies and waterclosets: this is the more to be regretted, since inexpensive and efficient modes of improvement were fully described in the Report of 1848. With respect to the want of hospital accommodation, although, as stated in a preceding page, serious difficulties did exist in obtaining suitable premises, these might have been overcome in most instances by timely and zealous exertions. It is much to be regretted that properly qualified nurses were not, as recommended by the inspectors, provided on the very first appearance of the epidemic.

## SECTION IX.

### *Measures adopted by the General Board of Health, and on the System of House Visitation.*

It has been shown in the preceding section that the measures prescribed by the Board of Health for mitigating, as far as that might be possible in the present sanitary state of the metropolis, the ravages of cholera, were of a most comprehensive character; due provision being made, on the one hand, for the removal of all causes known to be prejudicial to the public health; and on the other, for securing to the poor all the appliances of medical science for the relief of persons actually suffering from the pestilence (see Appendix, No. 7).

After the statements contained in the previous part of this Report, it need only be remarked in this place, that up till the last moment in which the preventive measures were left to the Boards of Guardians most serious errors were committed, of which no more striking confirmation can be adduced than that afforded by the City of London Unions; in which, with the exception of the East London Union, where my recommendation for the appointment of medical visitors was promptly carried into effect, the arrangements were so unsatisfactory as to lead to the interposition of the Lord Mayor and the City Committee of Health, to whom, on September 13th, 1849, I had the honour of submitting a plan for meeting the epidemic in the City, in which was included systematic house-visitation, the admirable operation of which in controlling the ravages of the disease had already been amply proved in other districts of the metropolis. Visitors were appointed, and, in combination with the highly efficient ordinary medical staff, and under the able superintendence of the distinguished officer of Health for the City of London, Mr. Simon, the most happy results were obtained.

#### *On the System of House-to-house Medical Visitation.*

The Metropolitan Sanitary Commission, to which body the members of the Board of Health were attached, had prior to the arrival of cholera in this country collected some most important evidence, showing the great success that had attended the early treatment of the premonitory diarrhoea at Bilston, in 1832, under the direction of the late Dr. M'Cann, an individual to whose memory the public gratitude is due

for having established the great and only successful method for the management of this destructive epidemic. The evidence of that distinguished surgeon Mr. Hodgson, formerly of Birmingham, is particularly instructive in connexion with this point, and well worthy the attention of all medical practitioners (see Appendix No. 8).

The main feature of Dr. M'Cann's plan, as to the executive part, was the opening of a dispensary for giving early assistance to persons labouring under bowel complaints; a measure always of great importance, and which at Bilston had a most marked and immediate influence in putting a stop to the ravages of cholera. It does not appear that any system of house visitation, the only complete plan of procedure, was established; the merit of devising which, as well as of fully realising the great principle of seeking out and promptly treating the epidemic in its first stage, is due to the General Board of Health. It is right to state that when, in October, 1848, the whole procedure was by the General Board reduced to a system, nothing of the kind had been attempted in Europe. On visiting Berlin and Hamburg, I found no method adopted for the seeking out of the epidemic in its first stage; all the arrangements of the authorities were directed not to preventive treatment, but to the provision of medical aid when it was sought for by the people. It is also remarkable, considering the great success that had attended the management of the disease by Dr. M'Cann's method, that even in this country no efforts commensurate with the supreme importance of early treatment were made to secure it; so far from this being the case, there was, in the highest ranks of the medical profession in the commencement of the epidemic, considerable scepticism as to the value of preventive treatment in the diarrhœal stage; a great change has, however, in this respect, been since effected by the marked success which has resulted from the measures put into execution under the auspices of the Board of Health.\*

*Commencement of the House Visitation.*—It was the earnest desire of the General Board of Health, that from the very commencement of the epidemic in 1848, the system of house visitation should be vigorously put into operation throughout the country. In Scotland, as it will appear in the Report of my colleague Dr. Sutherland, the instructions of the General Board were promptly and zealously adopted by the local authorities, and with the happiest results.

Effectually to have applied the system to London, the various districts of the metropolis ought to have been regarded as so many smaller towns, and in each of these a complete machinery should have been provided—a medical superintendent, medical visitors, nurses, dispensaries open day and night, houses of refuge, and a limited number of hospitals judiciously placed in different parts of the metropolis. But nothing of this efficient character was attempted notwithstanding repeated and urgent representations. During the first eleven months,

\* I have now before me a letter from a distinguished physiologist, and a physician in large practice: he says, "At the commencement of the epidemic I regarded the house-to-house visitation system as superfluous;" his opinion, however, was so entirely changed by observing the success of that measure, that he thus expresses himself with reference to any future epidemic:—"I think that it is the urgent duty of parishes to provide, at the moment of an outbreak of cholera, an efficient staff of house-to-house visitors to ferret out all cases of diarrhœa."

whilst the epidemic was prevailing in the metropolis, the superintendence of preventive measures was committed to my care; and in the midst of incessant demands made on my time, which was also frequently occupied by visits to other towns where the epidemic prevailed, it was impossible, in most instances, for me to do more than to ascertain the state of the disease, and to advise what measures were required, the execution of these remaining with the local authorities. When at length, in the last week of August, 1849, and when the weekly mortality from cholera had mounted to upwards of 1200, the system was put into execution, this was only most partially effected; several unions and parishes, and among them some of the most populous, refusing to conform with the directions of the General Board; whilst in others delays occurred in the appointment of the requisite number of medical visitors. The consequence of all this was, that in some large districts of the metropolis the system was never applied at all; and even in those parishes where it was adopted, there was not one in which it could be said the visitation was thoroughly carried out. It is essentially requisite to place these facts on record, or otherwise it might be inferred that the results about to be stated, which were in reality derived from a very limited application of this great preventive measure, were the product of its universal operation throughout the whole of the metropolis.

On August 24th, 1849, the General Board having for the first time been enabled to engage the services of a sufficient number of medical men to superintend the system of house visitation in the metropolis, the following gentlemen were selected for this duty:—Dr. Gavin, Dr. Macloughlin, Dr. Waller Lewis, Dr. King, Mr. Liddle, Mr. Walsh, Mr. Falconer, and Mr. Patterson.

The number of the superintending inspectors was reduced as the epidemic declined; the services of Dr. Gavin, to whom several of the most important districts were assigned, being discontinued on October 27th.

The medical visitors were appointed and paid by the unions and parishes, their number being determined, on the reports of the inspectors, by the General Board. With some few exceptions these gentlemen were legally qualified; a few senior students were selected where difficulty was experienced in procuring members of the College of Surgeons or Society of Apothecaries. On the whole, fewer difficulties than were anticipated occurred from a want of properly qualified practitioners, every facility being afforded in this respect by the Board of Health. The ordinary payment was 4*l.* 4*s.* a week, and for this remuneration it was required that those engaged should give up their whole time, the period devoted daily to actual visitation being usually about eight hours. In some instances more liberal remuneration was granted; and in the case of provincial towns all travelling expenses were defrayed. In all circumstances medicine was provided by the local authorities.

Although some of the inspectors were appointed on August 25th, little progress was made in actual visitation till the first week in September, owing to the time occupied in preliminary inquiries and arrangements. The last report was published on October 27th, the whole period thus occupying about eight weeks.

*Unions and Parishes in which House Visitation was adopted.*—The preventive treatment under the direction of the General Board of Health was more or less carried into operation in the following unions and parishes, in some instances only for a few days:—

- |   |                            |
|---|----------------------------|
| 1. Kensington.                                  | 14. Bethnal Green.         |
| 2. Chelsea.                                     | 15. Whitechapel.           |
| 3. St. George, Hanover-square.                  | 16. Stepney.               |
| 4. Westminster (St. Margaret's and St. John's). | 17. Poplar.                |
| 5. St. Martin in the Fields.                    | 18. St. Saviour.           |
| 6. Islington.                                   | 19. St. Olave.             |
| 7. Hackney.                                     | 20. Bermondsey.            |
| 8. St. Giles.                                   | 21. St. George, Southwark. |
| 9. Strand Union.                                | 22. Newington.             |
| 10. Holborn.                                    | 23. Lambeth.               |
| 11. Clerkenwell.                                | 24. Wandsworth.            |
| 12. St. Luke.                                   | 25. Camberwell.            |
| 13. Shoreditch.                                 | 26. Greenwich.             |

The system of the General Board was not adopted in the following parishes:—

- |                            |                            |
|----------------------------|----------------------------|
| 1. St. James, Westminster. | 5. St. George in the East. |
| 2. Marylebone.             | 6. Rotherhithe.            |
| 3. Hampstead.*             | 7. Paddington.†            |
| 4. St. Pancras.            |                            |

*Duties of the Inspectors.*—In order to guide the medical inspectors appointed for this special service in the discharge of their duties, full instructions were printed by the General Board, of which a copy will be found in the Appendix. The duties of the medical visitors were likewise explained in the same document (see Appendix, No. 9). In making the preliminary arrangements I had the great advantage of the experience of my friend Dr. Sutherland, under whose efficient and judicious superintendence the system had been so extensively carried out in Scotland. The principal duties of an inspector were as follows:—

1. To ascertain, by daily reference to the returns of the Registrar of Deaths, by the returns of the district medical officers and visitors, and by any other available sources, the precise localities most affected by cholera in his district.
2. To make out daily lists of such streets and houses as are specially affected, and on these data to locate his visitors for their daily work.
3. To visit personally the infected localities, to see that the visitation is properly carried out, to ascertain the accuracy of the returns, and to see that no cases have been overlooked.
4. To receive reports from the visitors of all nuisances and circumstances injurious to health; to communicate these to the local authorities, and especially to the Inspector of Nuisances; and to take care as far as possible that they are removed, and in case of neglect to report the same to the Board of Health.
5. To make a daily report to the General Board on the exact state of the epidemic, on any measures required, as to increase of visitors,

\* In this district the disease was extremely mild, 9 deaths only having occurred from October 7, 1848, to November 24, 1849.

† The epidemic was in this parish trifling.

provision of nurses, inspectors of nuisances, &c.; and to give a general view of the state of his district.

6. To ascertain if there are any manufactories, works, or other places where numbers of workpeople are employed; and, if so, whether proper provision has been made to provide prompt treatment on the spot of all cases of diarrhoea; or otherwise to report to the Board of Health what measures may be necessary.

In order further to facilitate the whole of the proceedings, and to enable the General Board to receive the earliest information of the exact progress of the disease, the inspectors met me daily, when full reports were made, and the various measures required were reported and immediately ordered. In this way it was impossible, where an efficient staff of visitors was provided by the authorities, for the epidemic to attain any development in a new district; since on the first intimation of an outbreak the full force of the visitors was immediately applied; and in this way in several marked instances the disease was kept down.

*Duties of Medical Visitors.*—The medical visitors, although appointed and paid by the local authorities, were placed under the entire direction of the inspectors, an arrangement indispensable to all prompt and sustained measures. Each parish or union, as the case might be, was divided into sub-districts, to each of which a visitor, whose duties were as follows, was allotted:—

1. To visit every house, and every family in it, once each day at least; and, in cases of sudden attacks of the epidemic in confined localities, or whenever the disease is more than usually severe, more frequently, according to the emergency.
2. To be provided with proper medicines to administer on the spot to all persons suffering from premonitory symptoms or cholera; to take charge of all diarrhoeal cases till cured; to hand over all cases of confirmed cholera which are discovered, after administering to them, to the care of the ordinary medical officer of the district, or of the surgeon expressly appointed for that purpose.
3. To allay alarm among the people by explaining to them that cholera is not usually a sudden and destructive disease, but that it begins by a milder stage consisting of diarrhoea, which is almost invariably curable; to warn them of the danger of delay, and the safety to be attained by early medical aid; to urge them, if seized with indisposition in the intervals between their visits, to apply to the surgeries of the medical officers, or to dispensaries, if provided, at any hour, night or day; and especially to warn them not to wait if taken ill till the visitor comes round.
4. To inquire into and report on all nuisances, accumulations of filth, overflowing cesspools, houses requiring cleansing, &c.; to advise the people on the importance of cleanliness, ventilation, temperance, &c.
5. To take notes of the particulars specified in the "Visitors' Return" (see Appendix, No. 10), and from these to make a return daily to the medical inspector.

*Duties of Lay Visitors.*—In some parishes lay visitors were appointed, whose duty it was to discover the existence of cholera and diarrhoeal cases; to send either the patient or a friend to the nearest medical officer for assistance; and to take a note of all cases, in order to ascertain whether the parties have applied. This class was also to

assist the medical visitors by directing them to persons wanting aid; to give advice to the people; and generally to facilitate the introduction of preventive measures.

It is proper to premise, before entering into details, that great care was taken to ensure accuracy in the returns of all the inspectors; each visitor was held responsible for the correctness of his daily report; the inspectors frequently went through the districts to check the returns, and the result of treatment, by inquiries among the people. It is especially due to Dr. Gavin, to whose charge, at one or other time of the visitation, all the principal unions and parishes were intrusted, and whose returns include more than half of all the diarrhoeal cases reported to the Board of Health (namely, 25,403), to explain that, to insure efficiency and accuracy, he met the visitors under his direction every night; and, as those gentlemen brought their returns with them, and related every circumstance that had occurred during the day, all sources of error were completely obviated. In the course of the house visitation I repeatedly urged on the inspectors the importance of accuracy. It is probable that, among so large a number of cases and details, some errors unavoidably arose, but I have no knowledge of such an occurrence. After again reviewing these proceedings I feel full confidence that the results stated closely approximate to the truth; but in regard to the number of cases of diarrhoea which are reported to have passed into cholera, even if these were double those reported, they would not amount to much more than one in 500, a result which must be hailed as a great boon conferred on humanity. It is not unimportant to observe, further, that the experience of many medical officers coincides to a great extent with the extraordinary success attending the prompt treatment of choleraic diarrhoea, allowance being made for the very influential circumstance that, as in the house visitation the cases were sought out, they were brought under treatment at an earlier stage, and consequently at a period when, as all observation shows, the affection, regarded as an epidemic, is most manageable.

Many instances of a similar character might likewise be adduced from the private practice of gentlemen in London, as well as from the experience of various public institutions; but space will only allow me to mention that of the Eastern and Tower Hamlets Dispensaries, for the interesting details of which I am indebted to my friend Dr. Munk, to whom great credit is due for the introduction and execution of a plan productive of such happy results. When the disease began rapidly to extend, on the suggestion of Dr. Munk the committees of these two institutions unanimously agreed to render them available as diarrhoea dispensaries, open at all hours for the supply of medicine to all comers, the use of recommendatory letters being suspended. At the Eastern Dispensary, 819 persons in the last year were thus treated for the premonitory symptoms of cholera, not one of whom, so far as Dr. Munk could ascertain, after very numerous and express inquiries, passed into collapse. At the Tower Hamlets Dispensary, 250 persons, of whom five subsequently died from the disease, were treated. The history of these five cases is important:—

“In all these instances,” says Dr. Munk, “the disease was very far advanced when the medicine was applied for; and in two of them the

patients were brought from the street into the dispensary, with the fully-formed disease upon them.”

This gentleman states, as the result of his experience, “that the premonitory stages of the malady are easily controlled by treatment; and that, under proper and early care, but very few cases run on to a fatal termination:” adding, that “the large majority of the cases above referred to were of a peculiar and specific character, and that they were essentially dependent on the same general cause which gave rise to cholera itself.”

It thus, then, appears that, great as was the success of the preventive system of the Board of Health, it is, after all, in keeping with general experience; the marked efficiency of the procedure consisting not so much in anything novel, as in securing that which is by no other means attainable, and yet is the great desideratum aimed at by all practitioners—the discovery and prompt treatment of the disease, at the moment when it first declares itself by relaxation of the bowels, or active purging.

*Period of Epidemic when Visitation was commenced.*—In considering the system of house-visitation, it is, however, essential to note the period of the epidemic when it was first put into action; or otherwise the results obtained might be attributed rather to the natural course of the disease, than to the efficacy of the measure itself. Little was done till the first week of September, and at that time the cholera was approaching its acme, the deaths being as follows:—

Week ending August 25th . . . .	1272
“ September 1st . . . .	1663
“ September 8th . . . .	2026
“ September 15th . . . .	1682
“ September 22nd . . . .	839
“ September 28th . . . .	434

It cannot be affirmed, then, that the uniform success which attended the preventive treatment in all parts of London was due to the decline of the epidemic; so far was this from being the case, the disease, at the precise moment, was in several of the districts visited raging in a most violent and alarming manner. It would obviously lead to useless details to enter into an account of the house-visitation in each locality where it was carried into effect; a statement of the general results, and a selection from two or three individual parishes, will suffice to exhibit the working of the system, and the benefits which followed its adoption.

*General Results.*—The tabulated returns made daily to the Board of Health, so far as the house-visitation was concerned, included the following particulars:—

1. The number of cases of diarrhoea discovered and treated in the preceding 24 hours by the visitors.
2. The number of cases similarly discovered approaching cholera, or those more particularly in which there was “rice-water purging.”
3. The number of cases of cholera discovered by the medical visitors in their rounds, which had not received any previous medical aid.
4. The number of corpses discovered by the visitors, of persons who had received no medical assistance.
5. The number of cases of diarrhoea and rice-water purging which passed into developed cholera after treatment by the visitors.

In reference to these returns, it is proper to explain that under the

head of "diarrhoea" were included a large number of cases in which other symptoms, indicative of the severity of the attack, such as depression of the system, spasms, and especially vomiting, were super-added; and in a large number of these attacks the evacuations, although not of the characteristic "rice-water" nature, were thin and light-coloured, showing the choleraic type.

The general result of the house-visitation is shown in the following return, which was the last issued by the General Board of Health, and which includes the period from September 1st to October 27th, 1849:—

Cases of Diarrhoea discovered.	Cases approaching Cholera discovered.	Cases of Cholera discovered.	Corpses discovered.	Cases which passed into Cholera after Treatment.
43,737	978	780	17	52

Owing to the incessant occupation of the inspectors in their several districts, the reports for some days were not given in regularly, although the totals were recorded, so that the ultimate results were not affected. The following table, showing the daily progress of the house-visitation for one month, will exhibit the general working of the system. The number of parishes and unions visited varied in this period, the highest number in one day being 21, and the lowest, towards the conclusion of the system, 5; the average number for the month was  $19\frac{1}{2}$ .

	Diarrhoea.	Rice-water Purgings.	Cholera.	Passed into Cholera after Treatment.
September 21, 1849 . . .	835	21	13	3
"  22, ,, . . .	942	12	10	0
"  24, ,, two days	1,685	25	8	0
"  25, ,, . . .	1,186	19	7	1
"  26, ,, . . .	982	10	15	1
"  27, ,, . . .	1,071	10	9	2
"  28, ,, . . .	992	16	7	1
"  29, ,, . . .	1,135	12	2	0
October 1, ,, two days	1,877	20	5	0
"  2, ,, . . .	1,633	17	11	0
"  3, ,, . . .	1,379	22	6	0
"  4, ,, . . .	1,010	11	8	1
"  5, ,, . . .	1,119	11	8	0
"  6, ,, . . .	986	10	5	0
"  8, ,, two days	1,751	15	12	0
"  9, ,, . . .	901	5	1	0
"  10, ,, . . .	1,135	14	1	0
"  11, ,, . . .	839	2	3	0
"  12, ,, . . .	794	2	3	0
"  13, ,, . . .	657	1	1	0
"  15, ,, two days	1,191	9	1	0
"  16, ,, . . .	527	2	0	1
"  17, ,, . . .	605	5	1	1
"  19, ,, two days	1,155	6	0	0
"  20, ,, . . .	416	5	0	0
Total . . . . .	26,803	282	137	11

For the purpose of illustrating the system in a detailed manner, two or three instances may be selected where the visitation was, comparatively, most effectively carried out.

BETHNAL-GREEN.—On August 20th, 1849, Dr. Gavin was appointed Medical Inspector,\* and was instructed to take superintendence of the parishes of Bethnal-green and Shoreditch, and in a few days subsequently of Hackney. Prior to this appointment the epidemic had attained a great force in Bethnal-green, the deaths in the weeks ending on August 11th, 18th, and 25th, having been 35, 125, 127 respectively: the virulence of the disease was so great, that in four days (August 12th to 15th) no fewer than 92 deaths from cholera and 3 from diarrhoea are reported.

"This sudden and violent outbreak took place in the night; consternation and alarm spread abroad, and the streets were filled with anxious relatives. Mr. Murray, the registrar of the Hackney-road district, states in his returns, that 'the 12th, 13th, and 14th of this month will long be remembered in this neighbourhood, the outbreak of this fatal disease being without any adequate preparation—surgeons wanted in many places at once: the hurried passing and repassing of messengers, and the wailing of the relatives filled the streets with confusion and woe, and impressed us all with a deep sense of an awful calamity.'"

In the previous week's return the Registrar remarks, "Medical men are called in when the people are dying, but it is then too late." Up to this time no house-visitation had been attempted, and the medical staff, as to numbers, was totally insufficient to grapple with so fearful a pestilence.

Under such circumstances, it was natural that Dr. Gavin should enter, on August 24th, on the discharge of his important duties "with a full consciousness of the great responsibility placed on him." Having a thorough knowledge of the whole district, he lost not a moment in preferring a Report on the exact state of the epidemic, and the measures demanded to meet it. On the 25th this Report was laid before the General Board of Health, who immediately issued a special order to the following effect:—

1. That four medical visitors be appointed, and to devote their whole time to house-visitation of the affected districts.
2. That an additional, properly qualified, medical officer be immediately appointed to aid in treating cholera cases in the infirmary.
3. That an adequate number of careful and efficient nurses be secured to take charge of persons attacked.
4. That immediate steps be adopted for providing, as speedily as possible, suitable hospital accommodation, as near as may be practicable to the several infected districts, with proper medical officers and nurses.
5. That handbills, giving full information of these arrangements, be circulated from house to house, in such parts as the medical officer may think necessary.

Owing to the delay connected with most of the arrangements of the local

\* Dr. Gavin commenced his duties a few days before the other inspectors.

authorities, this order was not taken into consideration by the guardians till the 30th of August, when the medical inspector attended, and impressed on the Board the great value and importance of the measures directed. The extra medical officers were sanctioned; but owing to the difficulty of finding persons willing to undertake the dangerous duties of the constant visitation of localities so fearfully afflicted, and from which there arose an odour so offensive as to be especially nauseous to all not accustomed to breathe so foul an atmosphere, some delay occurred, so that only one visitor was applied on the 31st, on the 2nd of September a second, and two more on the 4th. One of these gentlemen, on commencing his duties, was so overcome with excessive nausea, that he resigned. Dr. Gavin says—

“On inducting the visitors into their duties, and personally undertaking the first task, I was struck with the peculiar offensiveness of the smells arising from the whole district: an offensiveness everywhere more remarkable than at ordinary times, and which, from my frequent visitation of the district, I was well able to observe could not be due to any peculiar excess of filth, but to some state of the atmosphere which either rendered these emanations from decomposing matters more soluble, or prevented those changes taking place in them which destroyed the offensive compounds, and converted them into others less odorous.”

The inspector states he is not aware that any steps were taken to provide the nurses ordered. Nor was any hospital accommodation provided, although the parish workhouse, being at such a distance that patients would have to be carried, in collapse, often a mile and a quarter to a mile and a half, was unfitted for this purpose. Dr. Gavin gives it as his opinion that “through this want a large amount of loss of life, with its attendant misery, was entailed on the district.” He adds that he was informed the guardians endeavoured to procure a house of reception for cholera patients, at the same time protesting against its necessity.

The ordinary medical officers were requested to attend all cases of choleraic disease whenever requested, and also to afford advice and medicine at all hours day and night; but it soon became apparent

“that four out of five of the medical officers were attempting to cope with the amount of labour entailed upon them single-handed, chiefly because their remuneration was so scanty they could not afford to keep assistants to attend to the dispensaries established at their houses. It was, therefore, ordered by your Board—

“That duly qualified persons be appointed forthwith to be in attendance at the dispensaries and depôts already established within the parish, in order that persons applying for medical relief may receive the same at all hours of the day and night.”

The order further directed that a staff of men should be kept in readiness, with all proper materials, to carry out all works of lime-washing, &c., in houses wherein cholera had occurred; and, also, that an additional supply of water be provided for a complete and frequent washing of the courts and other confined localities; directions, however, which it is reported were most inefficiently carried out.

One very important measure in all cases of this nature is the establishment of dispensaries, open night and day, in the centre of each affected locality. This was especially demanded in Church-street, and the General Board consequently directed one to be opened. This part

of the order was not carried into effect. Upon this serious omission Dr. Gavin reports as follows:—

“The neglect of this provision, doubtless, contributed to the sum of the mortality of the district.

“I regret the want of this most necessary provision the more deeply as it was abundantly proved by evidence given before coroners’ juries, by the visitors, by the medical officer, and by other competent persons, that the disease chiefly manifested itself in the early morning, and therefore at a time when the visitors could not be visiting, and when the medical officer, overcome by excessive fatigue, could not be expected to be in his surgery.”

Two inspectors of nuisances, who were to devote their whole time, were ordered by the General Board to be appointed; as it was evident that the surveyor of pavements and the beadle, already directed by the guardians to discharge the important duties of this office, could not give up the necessary time: one of the inspectors only was appointed.

“The disease chiefly prevailed in that portion of the Hackney-road district which is behind and south of Shereditch church, and adjoins the Tower district.

“A space of about 400 yards by 150 would include a great part of the district which chiefly furnished the excessive mortality. On the 25th the registrar remarked, ‘From the registration of the last fortnight I find that 99 out of 107 fatal cases of cholera and diarrhœa have occurred in a space occupying less than a tenth of my district.’ There, then, was the proper spot to which to allocate the medical visitors, and to test the practical utility of the preventive measures adopted. The amount of deaths in the week ending 31st August, in the locality referred to, was 48 of cholera and 6 of diarrhœa. In the week succeeding, it was 27 of cholera and 4 of diarrhœa.

“All care has been taken to include every case of the disease which can be discovered to have died elsewhere than in the district, but which could fairly be attributed to the district. *A reduction in the mortality of 42·6 per cent. was effected in the first week of the visitation.* As it might be objected that this was merely the reduction natural to the decline of the epidemic, it is necessary to contrast it with the mortality in the Town district, where the epidemic had broken out at nearly the same time, and which was then only partially under visitation. In the week preceding the visitation the mortality from cholera and diarrhœa was 31 cholera and 4 diarrhœa. In the week succeeding it was 36 cholera and 2 diarrhœa, thus showing an increase of 8·5 per cent. on the previous week, and a difference, as compared with the Hackney-road district, of 50·1 per cent.

“Up to the evening of the 7th September, which may be fairly called the first week of the visitation, as it was not properly organized till the 4th, no less than 1025 cases of diarrhœa, 38 cases of approaching cholera, and 4 corpses had been discovered by the visitors.

“In the second week the following were the results:—

1331 cases of diarrhœa,  
26 cases of approaching cholera,  
8 cases of cholera, and  
2 corpses were discovered.”

*Progress of the House Visitation.*—In consequence of the great population in Bethnal-green, and the poverty which exposed large numbers to the exciting causes of the epidemic, the General Board, on Dr. Gavin’s representations showing the necessity of the measure, ordered, on September 10th, that four additional legally qualified medical visitors should be appointed. This order was not acted on by the guardians till the 20th. The staff of eight medical visitors was kept

up till the 19th October, when it was reduced to four, and was finally broken up on October 23rd.

In the Appendix a most instructive table is given, showing the daily progress of the house visitation in this parish, together with the cases of diarrhoea and cholera to which assistance was administered by the ordinary medical officers, both at their own surgeries and on their visits. To this document I would solicit special attention, as it places in a prominent light many of the more important points connected with the epidemic, and the application of preventive medicine. (See Appendix, No. 11.)

The marked superiority of house visitation in leading to the detection of premonitory attacks is made manifest by the facts set forth in the accompanying table, in examining which it should be borne in mind that it includes a period of fifty-four days, namely, from August 31 to October 23, 1849; that eight medical visitors was the staff employed, excepting for the first six days, and during the last week, when the number was less; and that there are five ordinary medical officers.

	Diarrhoea.	Approaching to Cholera.	Cholera.	Corpses.	Total Cases.
Eight medical visitors. . . . .	9,833	120	39	8	..
Surgeries and medical offices	3,415	221	78	..	..
Five ordinary medical officers . . . . .	596	168	265	..	..
Workhouse . . . . .	50	2	58	..	..
Total . . . . .	13,894	511	440	8	14,853

It will, of course, be understood that many of the diarrhoeal cases discovered by the visitors would have received assistance from the ordinary parochial surgeons had there been no house visitation; but after making due allowance for this, it is evident, from the enormous amount of diarrhoea thus discovered, and from the experience of other parishes where the preventive system was not adopted, that, but for the measures pursued in Bethnal-green, a large number of these 9953 persons would not have applied for medical aid, and that many of them must have fallen victims to cholera. In examining the table in the Appendix it is further important to remark, that, when the visitors first commenced their duties, they discovered proportionably many more cases approaching cholera, and of cholera itself, than subsequently when the system was in full operation, and this although the epidemic in the metropolis generally continued to prevail actively. Thus in the first ten days the visitors discovered fifty-four cases approaching cholera, or very nearly half the number discovered by them in the whole period of fifty-four days; whilst in the last twenty-one days they only found out ten such cases. So, again—which is a more obvious though not a more certain test of the value of this plan—in the first ten days the visitors discovered no fewer than twenty-four persons suffering from developed cholera, who had till that time received no medical aid; whilst in the remaining forty-four days they only discovered fifteen such cases, owing, it is evident, not merely to the gradual subsidence of the epidemic, but

also, and in an important degree, to the prompt treatment afforded, by which, as Dr. Gavin expresses it, "the cholera cases may be caught up in the earlier stages, and prevented from arriving at their full development."

In a metropolis like London, and in which, it must be remembered, the house visitation was only very partially carried out, it is impossible to demonstrate the direct influence of these preventive measures on the total mortality. All that can be done, beyond stating the general results of the system, is to give instances of limited districts. The following is one such example. Dr. Gavin reports that in the districts placed under visitation in Bethnal-green, after taking great care to

"include every case of the disease which can be discovered to have died elsewhere, but which could fairly be attributed to the district, a reduction in the mortality of 42.6 per cent. was effected in the first week of the house visitation."

It has already been explained that, in such marked instances of reduction as these, it has been said that the diminution ought rather to be attributed to the decline of the epidemic than to the preventive means adopted. For the sake of humanity it is desirable there should be no incertitude on such a cardinal point; and I have therefore been always solicitous that satisfactory evidence should be adduced of the actual bearings of the case. To meet such objections in the present instance, Dr. Gavin states,—

"It is necessary to contrast this diminished mortality in a district under visitation with the mortality in the 'Town District,' where the epidemic had broken out nearly at the same time, but which was then only partially under visitation, one visitor only being employed. In the week preceding visitation the mortality was 35, and in the week succeeding it was 38, thus showing an increase of 8.5 per cent. on the previous week, and a difference as compared with the Hackney-road district (under visitation) of 50.1 per cent."

*Conclusions.*—Dr. Gavin, to whose judgment, zeal, and indefatigable exertions, seconded by the devotion of the medical visitors, and by the co-operation of John Howard, Esq., the chairman, and Mr. Brutton, clerk of the Board of Guardians, these great results are mainly attributable, gives the following summary of the house visitation:—

"It thus appears that, in 54 days, no less than 14,845 persons received gratuitous medical relief, of which number 9992 were discovered by the medical visitors to be actually suffering from choleraic disease. This gives a proportion of 1 in rather more than every 8, or, in decimals, 1 in every 8.51 inhabitants, who were discovered by the visitors to be actually ill from choleraic disease; and 1 in every 5, or, more exactly, 1 in every 5.19 inhabitants, who were treated at the public expense. This proportion is so great as to prove two facts:—First, that choleraic disease prevailed in this parish to an enormous extent; secondly, that the means used to check the disease were most efficiently brought home to a very large proportion of those who were affected. On the very first day of the visitation, with but one visitor, 4 cases of unattended cholera were discovered; and on the next day 3 cases. On the third day, with two visitors, 3 cases, likewise, were discovered.

"It further appears that, within four days after the visitation had been thoroughly organized, 47 cases of approaching cholera, 24 cases of cholera, and the corpses of 5 persons who had received no medical relief whatever,

were discovered. These numbers formed the following proportions of the total amount of the same kind of disease discovered in the whole of the remaining period of the visitation:—39·2 per cent., 61·5 per cent., 62·5 per cent.; thus proving that immediately on the commencement of the visitation the disease received a marked and sudden check.

“The total number of cholera cases which came under treatment during these nine days, exclusive of the workhouse cases, which, of course, were not amenable to the system of visitation, amounted to 183, while only 199 came under treatment during the subsequent 45 days.”

“The disease is thus shown to have been remarkably amenable to measures of prevention when carried out with vigour and promptitude; and I am positive I understate the truth when I give it as the result of all my experience and knowledge, that, with these measures in full operation at the commencement of the epidemic, and before the severe outbreak on the 11th and 12th of August in the Town and Hackney-road districts had taken place, the lives of three-fourths of those who subsequently perished in the spots already defined as the hot-beds of disease might have been saved.”

This important and voluminous Report on Bethnal-green is thus brought to a conclusion by its talented author:—

“I have now to express my gratification at the cordial reception which the Clerk to the Board of Guardians, Mr. Bruton, manifested towards me, and the deep sense I entertain of the value of his services in securing that harmony of feeling and unity of action so essential when measures of energy require to be promptly executed.

“From Mr. Howard, the chairman, I likewise received willing co-operation. Without the aid of these two gentlemen, I am satisfied I could not have effected the saving of life which it is my profound conviction resulted from the measures I had the honour, under your Board, to superintend the execution of.

“I cannot look back to the regularity with which the visitation was carried on in this parish, and the vast results accomplished by it, without believing it to be the most complete experiment ever yet made in this or any other country to meet the demands, on the skill and energy of the followers of medicine, created by the stern necessities of a prevailing plague.

“In concluding this Report, I would observe that the work of prevention was set about right earnestly, and that the emphatic words of the Registrar-General, ‘the vast task of the physical amelioration of the population demands the energies of the best men in her Majesty’s dominions,’ were made the watchword of those employed in the service. To the inquiries ‘Who will go out against this enemy’ (cholera)? a reply was attempted to be vouchsafed. To the further inquiry, ‘Will no glory crown its conquest?’ the response has yet to be made. The great work which has been achieved in restraining within bounds the mortality and spread of this dire disease among a population so peculiarly predisposed to its ravages, has been the corollary to the facts stated, that, ‘as medical skill is of most avail at the beginning and end of a fever, as the effect of the engines is most conspicuous at the outbreak and end of a conflagration, and as most energy is demanded when the wreck nears the shore, so it is in an epidemic, which, if it has not been checked at first, may yet be cut short and combated as it declines.’ But while a great triumph has been accomplished, and the enemy subdued, the fact still remains, that ‘to remove the evils which make cholera and all epidemics fatal will be no easy task.’

“It is to be hoped enough has been made manifest in this record to demonstrate that, without a great improvement in the condition of the dwellings of the people, no benefit but of the most ephemeral character can be justly anticipated from the late labours of the medical superintendents and visitors or of the parochial authorities.”

SHOREDITCH.—By orders of the General Board, dated August 15th and 23rd, 1849, it was directed—

1. That 3 medical visitors be appointed.

2. That 3 lay visitors be appointed.

3. That, in addition to the existing surgeries of the medical officers, 3 dispensaries or depôts be provided in suitable situations, and to be open night and day, with sufficient medical aid for all who may be attacked by cholera or any of its premonitory symptoms.

4. That the existence of these depôts and surgeries be made known by handbills.

5. That such a number of efficient nurses be provided as in the opinion of the medical officers of the parish, or of a medical superintending inspector, shall be deemed adequate.

6. That a house of refuge be provided.

7. That two inspectors of nuisances be appointed.

Lastly. That a house or suitable rooms in convenient localities be provided, to furnish adequate hospital accommodation for those who cannot be properly treated at home.

Dr. Gavin reports that on August 24th, when he was instructed by the General Board to superintend this parish, some of these provisions had been carried out: thus three additional medical officers and the lay visitors were appointed; but the former were merely made supplementary parish attendants, and only visited in the course of their routine duties if called into what they considered an unhealthy locality: “there was no system; and the house-to-house visitation was not properly understood.” The 3rd provision was partially adopted; the 4th provision was carried out; the 5th provision was never carried out at all, nor were the house of refuge and hospital provided. On August 31st three additional lay visitors were ordered and two were appointed. A sufficient staff of men with all proper materials were also ordered to be kept in constant readiness to cleanse and lime-wash houses where cholera has occurred, and in such other instances as the medical officers shall direct: “this provision was adopted by the local Board, and was in a few instances carried into effect, but as a general measure it was neglected.”

It was also directed that provision be forthwith made to secure additional supplies of water for the purpose of a complete and frequent washing of the courts and other confined localities. “A few courts were washed, but, as a general measure, it was not efficiently carried out, chiefly in consequence of the Water Companies neglecting or declining to afford the necessary supply of water.”

It was the 28th of August before anything like a regular return of the cases of diarrhoea and cholera discovered by the lay visitors could be procured; but subsequently a regular daily return was sent in by Dr. Gavin to the General Board.

On September 6th an additional medical officer was ordered for the workhouse, in which cholera extensively prevailed; and after some delay the appointment was made. On the 8th of September, as the registered deaths were still excessive in this parish, an order was issued for four medical men to be employed as house-to-house visitors; this provision was carried into effect.



*Results.*—These were the measures directed by the Board of Health, and the general results may be gathered from the following statement:—

“The number of persons who received the benefit of remedial treatment at the hands of the medical officers of the parish was very great. It appears according to my tables,” says Dr. Gavin, “that no fewer than 8742 cases of diarrhœa, 30 cases of approaching cholera, and 11 of fully developed cholera, besides 8 corpses, were discovered by the visitors. 12,873 persons applied for and received relief at the three surgeries of the medical officers, viz.—

Diarrhœa . . . . .	12,374
Approaching cholera . . . . .	313
Cholera . . . . .	186

Total . . . . . 12,873”

It thus appears that, by the provisions directed by the Board of Health, in the period from August 28th to October 25th, no fewer than 21,116 cases of choleraic diarrhœa, 343 cases of approaching cholera, and 197 of developed cholera received prompt medical treatment. It is of course obvious that a portion of these cases would have been relieved by the ordinary staff, if no extra aid had been provided.

From September 6th to October 20th the ordinary medical officers visited and treated 854 cases of diarrhœa, 243 of approaching cholera, 185 of cholera. In the workhouse 188 cases of diarrhœa, 13 of approaching cholera, and 42 of developed cholera occurred.

Dr. Gavin reports,—

“With regard to the cases of diarrhœa and of approaching cholera discovered by house visitation, one only of the former and two only of the latter are known to have passed into cholera.”

These results being so remarkable, it is proper to state that Dr. Gavin took every possible precaution to secure accuracy. He met the medical visitors, as already stated, every night, to receive a detailed account of the day's work; and thus, whatever case of premonitory attack passed into cholera after being discovered and treated by these gentlemen was reported. But,

“as it might have happened that some of the cases discovered by the lay visitors subsequently passed into cholera while under the charge of the parochial medical officers, I instituted inquiries,” says Dr. Gavin, “with reference to that point.”

The subject is one of such importance as to require the insertion of one or two of the replies received from these gentlemen:—

DEAR SIR,

24th October, 1849.

My experience does not furnish me with a solitary case of simple diarrhœa under treatment terminating in cholera.

(Signed)

ALFRED C. BOWER.

DEAR SIR,

23rd October.

I HAVE the highest opinion of the lay visiting; I believe it to have been the most efficient of any of the regulations issued by the Board of Health. I know of no case of simple diarrhœa sent me by the visitors passing into cholera. I am of opinion that a great part of the diarrhœa we have had has been modified cholera, and not the simple disease as heretofore.

(Signed)

W. W. COWARD.

MY DEAR SIR,

October 24th, 1849.

I AM not aware of any cases sent me by the lay visitors of simple diarrhœa having subsequently passed into cholera; but from the continued application of such cases, and nine times out of ten not knowing by whose authority they came, it is impossible to speak positively on the subject; but certainly my impression is that very few cases indeed, if the treatment were adopted whilst in the stage of diarrhœa, came into cholera at all.

(Signed)

W. W. BURCHELL.

It may, therefore, be safely concluded from this scrutiny, even supposing that some few cases did pass into collapse unknown to the visitors, that the results of seeking out and promptly treating diarrhœa in this parish were pre-eminently successful, preventing a large number of patients from falling into the fatal stage of collapse.

HACKNEY.—Up to the time when the preventive measures of the General Board were first instituted in this parish, namely September 5, 1849, there had occurred 93 deaths from cholera, several of these happening in January and February. The proceedings of the guardians in this parish were highly creditable, and distinguished by an earnest desire to arrest the ravages of the epidemic. They adopted without a moment's delay the recommendation of Dr. Gavin that two extra, in addition to the four ordinary medical officers, should be appointed, thus avoiding the delay incidental to the issuing of an order of the Board of Health. They at once instituted six dispensaries at the houses of the medical officers for the gratuitous distribution of medicine to all applicants; and the surgeons were directed to visit all poor persons who should apply on account of choleraic disease. The guardians likewise agreed to the appointment of four medical visitors. Several wards in the workhouse had already been fitted up as a cholera hospital. Provision was also made in this establishment to receive families in which deaths from cholera had taken place; but no families or persons could be induced to remove to the workhouse.

*Visitation commenced.*—“On the 7th September, 1849,” reports Dr. Gavin, “the system of medical house visitation was commenced; three visitors began their labours on that day, and on the 10th a fourth was added. The number of the staff was maintained till October 21st. It is proper here to observe, that the gentlemen of whose assistance I was thus enabled to avail myself performed their duties with an earnestness and a desire to carry out the system in all its entirety, which were at once honourable to themselves, satisfactory to myself and to the Board under whom they were appointed, as well as most serviceable to the inhabitants of the locality.”

*Results.*—In order to obviate all sources of error as to the influence of these preventive measures on the mortality of Hackney, Dr. Gavin consulted the local registries of death, and by other inquiries on the spot ascertained the precise date of each death, thus avoiding the fallacies inseparable from the weekly returns of the Registrar-General, in which deaths occurring in one week may occasionally not appear till some time subsequently. With these precautions—

“It appears that the deaths, which for the six days preceding the visitation, and on the day on which it was commenced, had been 14, that is, 13 labourers and one tradesman, fell during the next seven days to 10, of which 10 two were imported cases and three tradesmen; being a reduction of 67 per cent. in the preventible deaths.”

[B]

M

This marked reduction, which more or less was observed in all instances where the house visitation was adopted, cannot be attributed to the general decline of the epidemic in the metropolis; for although some reduction did take place in the week ending September 15, it was, when compared with that of the preceding week, ending September 7, in the ratio only of 1682 to 2026. On examining the results more in detail, they will appear even more important. In the first week of the visitation 815 cases of diarrhoea and fifty cases of approaching cholera occurred, and were thus distributed:—

	Diarrhoea.	Approaching Cholera.
Medical visitors . . . . .	474	42
At the surgeries of medical officers	160	3
Medical officers . . . . .	181	5

“The great value of the system of medical visitation is rendered most obvious by the above comparison, which exhibits more than 13 cases of diarrhoea discovered by the visitors as compared with five coming under the charge of the regular medical officers; and a proportion of more than 14 to five as compared with the numbers which would voluntarily apply for remedial aid, even with every facility to obtain medicine and advice freely supplied to them. The value of the system is still further manifested in the great proportion of cases approaching cholera, which would not otherwise have come under treatment at all until a large proportion had absolutely passed into the fully developed stage of the disease.”

The subsequent weeks gave similar results.

The following is the summary of the house visitation in Hackney:—

“Of the whole number of 2120 cases of diarrhoea discovered by the visitors not one passed into developed cholera, though several advanced as far as rice-water purging, vomiting, &c. Of the 73 cases of approaching cholera, one only passed into cholera—its result was fatal.”

Seven cases of developed cholera that had received no medical aid were also discovered by the visitors.

Dr. Gavin thus concludes his Report on Hackney:—

“In concluding this Report I would beg to express my conviction that the inhabitants are under a debt of gratitude to the Board of Guardians for their prompt liberality in all matters connected with the prevention of the spread of the pestilence, and for their ready desire to accede to all the recommendations which I considered it my duty to lay before them.”

CLERKENWELL, ST. LUKE'S, ISLINGTON, and WHITECHAPEL.—The parishes of Clerkenwell, St. Luke's, St. Mary Islington, and Whitechapel Union, were, so far as the preventive measures of the Board of Health were concerned, placed under the superintendence of Mr. Liddle, formerly one of the medical officers of Whitechapel, and who has paid much attention to the sanitary question. This gentleman thus commences his Report:—

“The beneficial results that followed the appointment of a staff of medical men, for the purpose of house visitation, were soon manifested in the parishes of Clerkenwell, St. Luke, Islington, and Whitechapel, by the discovery of numerous cases of diarrhoea, a complaint which is admitted by all the visitors under my superintendence to be a premonitory symptom of cholera. Many of the persons thus suffering would not, according to the opinion of the visitors, have applied for medical aid, and would, but for the timely assistance they received, have passed into cholera.”

The general results of the system in these parishes, of which the details are given in a table prepared by Mr. Liddle (see Appendix, No. 12), are as follows:—

	Diarrhoea.	Approaching Cholera.	Cholera.
St. Luke's . . . . .	890	20	13
Islington . . . . .	1,302	70	16
Clerkenwell . . . . .	431	25	8
Whitechapel . . . . .	755	7	15
Total . . . . .	3,378	122	52

The number of premonitory cases which passed into cholera after treatment by the medical visitors was not kept distinct from the same class of cases treated by the medical officers of these four parishes; and therefore all that can be stated is, that the parochial surgeons, from September 8th, 1849, to October 4th, 1849, treated 3780 cases of diarrhoea and 237 cases of approaching cholera; to which number must be added 118 cases of diarrhoea, treated in three months by Mr. Harston, of Islington (not one of which died), making a general total of 8276 attacks of premonitory diarrhoea, and 359 cases of approaching cholera, of which 35, or 4.2 in a thousand, passed on into developed cholera or collapse. Mr. Liddle, who was most anxious to obtain accurate information, adds, that “the returns of the number of diarrhoea cases which were attended by the medical officers of Islington are very imperfectly recorded in the table.”

It will be perceived that the number of cases which, in these districts, passed on into collapse notwithstanding treatment in the premonitory stage, is much larger than in Bethnal-green, Shoreditch, and Hackney. It is, however, necessary to notice two points in reference to this difference: in the first place, the 35 cases did not occur in the practice of the medical visitors exclusively, but also in that of the medical officers; and it is certain, as already explained, that the premonitory cases, taken collectively, were seen at a later stage of the attack by those officers than by the medical visitors; and therefore a larger proportion of them were likely to go on uncontrolled by medicine. In the second place, it appears from the note appended to Mr. Liddle's return that more attacks of diarrhoea than are included, occurred at Islington. From the general experience of London, I feel myself justified in affirming that, where premonitory cases of diarrhoea are seen at a very early stage, which ought to be the result of successful house visitation, the attacks passing into collapse will not be so high as 1 in 250.

Mr. Liddle's Report contains several interesting letters from the medical officers of the above parishes. The following are a few extracts. Mr. Byles, one of the surgeons of Whitechapel, says that in Mile End New Town there were multitudinous cases of diarrhoea, which generally yielded to ordinary treatment. This gentleman, who is an excellent practitioner, adds,—

“The opportunities of seeing the dejecta were not very numerous; but my opinion is, that in the diarrhoea cases the gall-bladder was usually

loaded, and that sufficient bile did not pass into the intestines to induce one to call the premonitory diarrhœa bilious; but that the excretions were serous from the first, a conclusion at which I arrive partly from the remarkably depressing prostrating effect produced in robust adults by one or two evacuations."

Mr. Hart, another surgeon of Whitechapel union, says,—

"Out of 93 cases of which I took notes, 34 only are known to have had previous diarrhœa, 40 none whatever, and of the remaining 19 I have no satisfactory evidence upon this point." "I met with no case of bilious diarrhœa passing into cholera." "The number of simple diarrhœa and bilious cholera cases that were treated by me from the beginning of June to the end of September, 1849, amounted to 2067, opium being in the greatest part used, and this appeared to have almost a complete control on these affections."

Dr. Allison, of Whitechapel, who saw a large amount of the disease, having the district of Rosemary-lane, states,—

"that in his opinion the majority of cases of cholera were preceded by diarrhœa, in some for several days, in others of only a few hours' duration." "Some of the cases, however, were decidedly sudden; the severest inquiry failed to elicit any evidence of preceding diarrhœa."

The Rev. W. W. Champneys, Vicar of Whitechapel, provided medicine at his own expense for a large number of persons labouring under premonitory symptoms, and with the happiest results, 1000 cases having been thus relieved. (For an important letter of Mr. Champneys on this subject, see Appendix, No. 13.)

ST. GEORGE, HANOVER-SQUARE, KENSINGTON, AND CHELSEA.—In consequence of Dr. Waller Lewis having been instructed by the General Board to proceed to Redruth, in Cornwall, where a severe attack of cholera occurred, 17 days after he had been appointed to superintend the house visitation in four of the western parishes, the returns for these districts are not complete. The parishes were those of Kensington, Chelsea, St. George, Hanover-square, and St. Margaret's and St. John's, Westminster; in the last named, however, the system was very imperfectly carried out, and was discontinued before Dr. Lewis visited it. The following extracts from this gentleman's Report embody his experience:—

"It is to the early detection of this dreadful scourge, and its treatment in the first stage, that we are to look almost to a certainty to combat this malady. As I have said before, I believe that the exceptions are very rare in which simple diarrhœa is not one of the first symptoms.

"Just as all sorts of remedies have been tried in the first stage and found to fail, so have all kinds of astringent medicines been used for the first stage with an opposite effect. Brandy and opium, opium by itself, chalk mixture, sal volatile and tincture of henbane, infusion of oak bark, all have had their advocates, and all seem to have succeeded equally in cutting short the disease. Very few cases indeed appear to have resisted remedies, if given early in the attack. All the evidence received goes to prove the efficacy of medicine in checking and arresting the premonitory diarrhœa.

"Mr. Jones, of West Brompton, says, 'I have attended a large number of cholera cases, as well as a great many in the early premonitory stage; I know of only one case where these symptoms had been attended to which ran into confirmed cholera. In that case it was the effect of the man's committing an imprudence by getting drunk, and I succeeded in saving his

life.' He adds, 'I firmly believe that, had the premonitory symptoms been attended to in all cases, we should not have had to deplore the very great fatality that we now have.'

"The visitors in the western districts of London, during the few weeks they were engaged, discovered upwards of 7000 cases of premonitory diarrhœa; but the most careful inquiries that I instituted on the subject showed that, out of this number of cases brought under treatment, seven only were not arrested, and passed on into confirmed cholera.

"From my own experience and observation, confirmed by that of almost every medical man in London and the country with whom I have communicated on the subject, I have no hesitation in saying, that the only means of securing safety for the community, when this disease once shows itself as an epidemic, is to adopt at once the most perfect plan possible of discovering the disease in its earliest stage. Experience has shown that the generality of persons will not send for medical assistance till this aid can no longer be of service to them.

"I am of opinion that the system of house-to-house visitation by medical men, attached to the union medical officers, is the best method that can be pursued for discovering and bringing under immediate treatment all cases of commencing cholera.

"As was the case in all the other districts under my superintendence, the house-to-house medical visitation was not commenced soon enough (this refers to the parish of Kensington), but when in full operation its good effects were most forcibly felt. The number of cases of cholera quickly diminished, and a greater proportion of recoveries took place in those who were attacked. After a certain time the worst form in which the disease showed itself was that of rice-water purging, or choleraic diarrhœa; and when the visitation had been in force a little longer, even this severe form of the diarrhœa became scarce, and the disease made its last expiring efforts in the form of simple feculent diarrhœa, a stage in which it could be mastered almost with certainty."

The following instance will demonstrate the advantages that were derived from the plan of house visitation. In the parish of St. George, Hanover-square,

"I was informed," says Dr. Lewis, "that the Board of Guardians had given the medical officers *carte blanche* to take any measures they considered necessary during the raging of the epidemic, as to engaging extra medical assistance. To the date of the 24th September these gentlemen were of opinion that no extra assistance was required, and that no time was lost in seeing persons directly they were taken with premonitory symptoms. At an interview on that day I heard, however, of two cases, which convinced me that the system was inefficient. One of the surgeons of the out-ward had been called the day before to two cases of cholera; the first was that of a woman who, though visited very quickly after sending for medical assistance, was dead when the surgeon arrived. The second was that of a child who only lived an hour and a half."

Dr. Lewis, after pointing out the necessity of discovering these cases in the first or diarrhœal stage, and the danger of continuing the system then in operation, proposed the adoption of house visitation, which being immediately acceded to by the medical officers, four assistants were engaged. It is important and instructive to mark the result:—

"From that time," reports Dr. Lewis, "although very many severe cases of diarrhœa were discovered and treated, the medical officers were not called upon to attend a single fresh case of cholera. The disease soon abated, so that the visitors were dispensed with after having been employed a fortnight. During that time they discovered about 290 cases of premoni-

tory symptoms, nearly 40 of which they believed would have run into cholera if not brought under treatment."

Among the many proved advantages of the system of the Board of Health, by which assistance was brought to the dwellings of those attacked, there is one that has not attracted the notice to which it is entitled, but which will be readily recognised by all medical practitioners. In the treatment of severe diarrhœa, and especially of that connected with cholera, it is a point of primary importance that the patient should be kept perfectly at rest and in the recumbent position; all exertion tending to bring on the discharges. Now, when among the poor medical aid is to be sought for, the persons actually suffering, as was proved in the late epidemic, either from ignorance of the danger thus induced, or from necessity, very frequently make the application themselves; they have thus often to walk a considerable distance, which, in the extreme debility so often accompanying choleraic diarrhœa, is liable to aggravate the mischief; this circumstance alone, I feel assured, was the cause of many cases resisting treatment and passing on to collapse prior to the introduction of the preventive measures.

*Testimony of the Medical Visitors.*—Having given these extended extracts from the Reports of the inspectors, I may add that the amplest testimony is borne by the gentlemen employed as medical visitors to the efficiency of the visitation system; they are of one opinion, that it is the only effectual method of discovering the premonitory symptoms, and of preventing by prompt treatment such attacks passing into cholera. In Southwark, where, however, owing to circumstances over which the Board of Health had no control, the house visitation was on the whole very imperfectly carried out, Mr. Walsh reports that the medical visitors were unanimous as to the efficiency of the system, and adds, "I believe it to be the method of treating cholera, or rather of preventing it, as far as human means can prevent it."

The following statement may be introduced, as it illustrates a feeling which was shared by many of the medical officers before the working and advantages of the system were understood, and also sets forth in striking but perfectly true terms the exact steps of this frightful disease, and the mode by which it may be combated. Mr. Benington, for two months an assistant medical officer, and for one month a visitor in Lambeth, thus expresses himself:—

"At first I regarded the project of house visitation with perfect contempt; but whilst employed as a medical attendant on cholera cases, and with no expectation of becoming a visitor, I became a sincere convert to a belief in its utility. I observed a fatal disorder making its approach in the guise of a simple and apparently harmless ailment, or painless diarrhœa, and only developing its virulent character when it had, as it were, obtained possession of the very citadel of life; there rarely seemed but a single step between this premonitory symptom and the almost hopeless stage of the disease: it was like a man stepping from a precipice when no mortal power could arrest his downward career. It was evident to me that this disease could alone be successfully grappled with when the diarrhœa gave warning of its approach. But the difficulty was to meet with it in this early stage: unconscious of the approaching evil, the sufferer from diarrhœa continued in the pursuit of his usual calling, and in this state of dangerous security was but too frequently surprised by death. The system of house visitation supplied the means of encountering the malady at the only period when

there was a chance of success. The design appears to have been to raise an army of medical men, whose office it should be to take the entire population of a town or city under its protection, ready to combat the disease on its first appearance, and to remove all causes capable of favouring its approach. It might deservedly be termed a great and comprehensive scheme. In Lambeth only five visitors were employed at the height of the epidemic. I perceived the worth of this system, and what might be accomplished through its agency when in complete operation; for although it is true that after the adoption of house visitation the disease assumed a more intense character, and the mortality occasioned by it greatly increased, yet, when I observed that in nearly every case of cholera to which I was summoned there had been neglected diarrhœa, and when I also became acquainted with the fact that numerous cases of diarrhœa were daily discovered in my district by the medical visitor, and successfully treated by him, it was evident that, but for the exertions of this gentleman, the number attacked with cholera would have been far greater, and a consequently greater loss of life have ensued."

The following important letter places the advantages of the system in a striking point of view:—

"We, the undersigned medical visitors of the parish of Saint Mary, Islington, having been engaged during the last three weeks in visiting the poor from house to house, and in diligently searching for cases of diarrhœa and cholera, do hereby testify to the beneficial results which have hitherto accrued from our labours:—

"1. We have, under this system, been enabled to detect numberless cases of diarrhœa, and to prevent by early and judicious treatment the transit of such cases into the more dangerous form of rice-water purging, or into the actual state of collapse in cholera.

"2. By making such inquiries in every house among the poor we have found that many cases of diarrhœa have been subjected to treatment, which otherwise, from the carelessness of the individual, or from the prejudice they have to calling in the aid of the parish medical officer, would have been wholly neglected.

"3. Not only has the health of the poor inhabitants of this parish been preserved by well-timed medical treatment, but the sanitary condition of their residences has been thoroughly investigated; all nuisances have been pointed out to the Medical Superintendent, and the causes, as well as the disease itself, have in many instances been removed.

"4. On making inquiries at the various houses relative to the existence of disease in the families of the poor, we were for the most part well received; and our visits have been acknowledged with the warmest expressions of gratitude.

"5. So far from our visits having excited the least intimidation or alarm among the poor by making such inquiries, they have invariably tended to inspire confidence in their minds.

"6. In numerous instances, families in the greatest want and inanition have, by the liberality of the trustees of this parish, been relieved by proper and substantial food, whereby the bodily strength has been fortified and the access of disease prevented.

(Signed) "JOHN COWARD, Minerva-terrace.  
JOHN RICHARDSON, 28, Camden-place.  
WILLIAM PURDY, 11, Saint George's-terrace.  
ROBERT SCOTT, Upper Barnsbury-street.  
THOMAS GRAHAM, 2, Esther-place.  
HUGH CAMPBELL, 11, Saint Paul's-terrace.  
WILLIAM ANDREWS, 16, Brunswick-place.

"September 28, 1849."

One of these gentlemen, Mr. *Richardson*, further adds,—

“Persons generally speaking refuse to send for the parish officers; and the visitors have found cases of actual cholera which were unattended by any medical man, in consequence of the refusal to send for the parish surgeon; in such cases the visitors considered it to be their duty to give their attendance.”

Mr. *Wells*, a medical visitor in St. Luke's parish, states—

“that he has had five cases of cholera in its second stage of rice-water purging and vomiting, which would have gone into collapse, and ultimately perished, had he not discovered them.”

He further adds—

“that at least one-third of the persons he called upon, who were suffering from diarrhoea, would not have asked for medical aid, had he not insisted upon its necessity.”

Mr. *Leake*, a medical visitor of the Whitechapel Union, writes as follows:—

“In one day I discovered five cases of developed cholera, in none of which I believe the patients would have applied for medical aid. I also discovered a very large number of premonitory cases which, I have no doubt, if they had not been found out, would have terminated in cholera. I found that after visiting my district, and carefully attending to all cases of diarrhoea, and advising the people to keep their dwellings and persons clean, cholera gradually diminished. I have no hesitation in saying, that many cases of serous purging discovered by me would have passed into the worst form of cholera, had they not been checked.”

The testimony of the four medical visitors of Clerkenwell is equally favourable.

Many striking examples of the great benefit of early treatment have come under my notice, which exemplify, in special cases, what has been so amply proved by the general results as shown by the official returns. One instance only can here be quoted. Mr. *Tovey*, one of the medical officers of Bermondsey, where the disease was very destructive, says—“he has remarked that, among the better classes who have been attacked lately, there have been proportionally more deaths than among the poor, which he attributes to the latter being so early treated: among the poor” (this refers to August 13th, in the very height of the epidemic) “there has been an immense amount of bowel complaint which has been controlled.” The same fact has been noticed in other parts of England and Scotland.

*Sanitary Evils discovered by the House Visitation.*—It is necessary to state that the successful management of the epidemic was not the only, though it was the most striking, advantage resulting from the system of domiciliary medical visitation. In every part of the metropolis where the plan was carried out, a vast number of nuisances and sanitary evils of every description were detected and immediately reported to the local authorities. In many instances prompt measures were thereupon adopted for the removal of the defects; but I regret to state, it not unfrequently happened that the reiterated complaints of the medical visitors were of no avail. The following extracts from Mr. *Walsh's* Report will suffice to explain the character of these proceedings, and the difficulties attendant on efficient amelioration:—

“The visitation has shown how much some of these sanitary evils require a fresh eye to find them, and indefatigable and independent representation of them in the right quarter. The uncleansed streets, the full cesspool, require both firm and frequent representation to the proper officer, and a rigorous enforcement of the law. The undrained and unpaved court, the unventilated, unwatered dwelling, require frequent appeals to the owner and occupier. The noisome trade requires the still more energetic notice of the nuisance inspector or of the magistrate. The untrapped gully-hole, the unsewered street, the noxious open ditch, are evils requiring larger measures and stronger powers. For a progressive improvement in the houses and habits of the people, I conceive that a system of medical inspection by an officer having no local connexion would be the best security. The making an inquiry into the cause of death should be the rule, not the exception. I have known a case of diarrhoea passing into cholera and death without the medical officer seeing it; yet he gave a certificate of the cause of death. I have also known instances where the cleansing of houses or courts, removal of uninfected persons, or other sanitary precautions, have been enjoined, but neglected, and where death has ensued; yet the cumbrous and uncertain process of a coroner's inquest, even if it could be obtained, was the only mode by which the facts could be verified, and the blame laid on the offending parties.”

The amount of sanitary evils of every kind reported by the medical visitors is almost incredible; a general idea of them may be gathered from the facts stated in a preceding section.

It has already been stated that in several parishes, in consequence of the reports either of the inspectors of nuisances or of the visitors, improvements and cleansing operations were effected by the local authorities; but it is proper to explain, it is the concurrent opinion both of the medical inspectors and visitors that these proceedings will not be permanent; and in corroboration of the correctness of this conclusion, I may state that, in most of the parishes where during the epidemic inspectors of nuisances were appointed by the guardians, these officers have since been dismissed. Unless, therefore, some other measures be adopted, it is certain that in the most populous and poor districts a return to the old state of things will speedily, if indeed it has not already occurred, take place. In some of the largest parishes, as the evidence of the visitors proves, little or no improvement was effected. Such statements as these are very common in the reports:—“None, that I am aware of;” “None whatever;” “Very little;” “Little done yet, in proportion to what there is and ought to be done;” “I have inspected the district; and affirm that its sanitary condition is worse now than three months ago;” “None;” “I can see no improvement;” “Very little attention is paid to any representation of sanitary evils.”

*Data for conducting House Visitation.*—If, owing to a return of cholera, the necessity for house-visitation should again arise, in order to ensure full efficiency to the system, several points would require to be determined. Among these, one of the first would be, to ascertain the number of families in the districts likely to be affected, so that a basis for future operations might be obtained. To obtain such necessary information in the interval of the epidemic attack would obviously form a part of any wisely devised scheme for the application of preventive medicine; since, as was abundantly shown in the late visitation, in the absence of these details, those who are officially called

on to protect the public health must experience the greatest difficulty in ascertaining, even approximately, the amount of extra medical aid that the emergency demands.

*Number of Families capable of Visitation.*—Another main desideratum is to determine what number of families can, in one day, be efficiently visited by one medical man. This question was, therefore, proposed among others by the Board of Health, in a circular addressed to the visitors; and in reply a large number of answers have been received. The circumstances principally affecting this point will be—first, the density of the population, and the consequent area of the district; secondly, the expertness of the visitor, and the time devoted to his duties; thirdly, the stage of the epidemic as to severity. A few of the replies are selected for future guidance. Mr. Molloy says,—

“When the system is first introduced into any district, the visitor must devote five minutes at least to every family to afford the necessary explanations: this will give 72 for six hours' work—a very fair average. When, however, the object of this mission is well understood, he will obtain the command of a neighbourhood and population many times this number in consequence of the free intercommunion which exists in these districts.”

The visitors in St. Luke's parish state that from 400 to 500 families can be visited in a day. Mr. Welsh thinks,—

“540 healthy families and 53 or 54 sick families, in the one case allowing two, in the other seven and a half minutes to each family, can be visited.”

Mr. Cleave states,—

“At the commencement, if diarrhoea was very prevalent, about 400; towards the latter part, when on the decline, about 600 families.”

Mr. Jones states,—

“In my district at Bethnal-green there were about 850 houses, and on an average about three families in each house: this will give 2550 families in all; but it was quite impossible to visit the whole of them separately in one day, the different families in each house being on different flats. One thousand is, I think, the greatest number of separate families that could be properly visited in one day.”

Dr. Jones, who was placed in a district where the houses are chiefly two-storied, and the number of families varies from three to five in a house, was able to visit from 300 to 400. Mr. Oscar Fox states that the number that could be visited would depend upon the number of cases of illness and pairs of stairs to be ascended. In a densely populated district, of very limited extent, I have visited 472 families in the day; but the fatigue was much too great to be sustained for any length of time. I should say that where the houses are of two, three, or four stories high, with families on each floor, 250 families would furnish a fair day's work, supposing 25 of the number required medical investigation and prescription. In Lambeth, it would appear, there was more difficulty in the visitation. Thus, Mr. Ferguson says, from 200 to 300 families could be visited. Mr. Cox, in a country district, allowed four minutes to a family. Mr. Tuxford could visit from 300 to 600 families; and Mr. Benington, 500. Dr. Gavin states that if the object of the visit were previously made known, and if the visitors devoted, as was the case in Bethnal-green, nine hours a-day, each might

visit, under the ordinary pressure of zymotic disease, 500 houses, which, allowing two families to a house, would give 1000 families; the number decreasing in proportion to the severity of the epidemic.

On reviewing these several statements, it may perhaps be inferred that, with judicious arrangements, a visitor devoting eight hours could visit 500 families per diem; which, allowing five members to each, would give a total of 2500 persons. This estimate might thus be adopted in densely populated districts; but properly to appropriate the assistance in different localities, and to give efficiency to the whole plan, careful superintendence would be required, a provision which was adopted in various towns during the late epidemic, and with the best results.

*Causes preventing the Discovery of Diarrhoea by Visitation.*—It is essential, in this account of the house-visitation, to point out the causes which prevented cases of diarrhoea, really existing, being discovered.

1. Absence from home.—It will be obvious that the most general of these causes was the long absence from home. The bulk of the labouring classes, as regards the men and boys, leave early in the morning and return in the evening; many of them, owing to a multitude of employments, not even returning to meals. It happened in a large number of instances that persons having some slight bowel complaint in the morning went out to work, and then, from this neglect, returned at night much worse, or even in a state of approaching collapse; or, again, that attacks of diarrhoea came on late in the evening and were neglected, the individuals going in the morning to their employment as usual. Now, as the visitors ordinarily went round between nine a.m. and seven p.m., it necessarily happened that many cases of this kind escaped detection.\* To meet the evil, in some few districts two visits were made, one early in the morning and the other late at night, so as to catch the people before going to and after returning from their labours. I feel assured that, to render the system perfect, some such plan as this must be adopted wherever the epidemic is severe.†

2. The absence from home of any member of the family qualified to give information.—Not an unusual occurrence among the poor; the only person in charge of several children being a girl of 8 or 9 years old.

3. The influence of the druggists.—Some depreciated the skill of the visitors, and so induced the poor to believe that they could only be guaranteed from danger by applying at their shops.

4. A feeling of delicacy on the part of females.—In one ascertained instance this led to loss of life.

5. Dr. Gavin mentions a cause which would scarcely have been expected, but which he found operating extensively—the fear, namely, on the part of the poor, of giving offence to their landlords, in consequence of being in arrear of rent:—

“If the poor complain of their houses the landlord steps in and takes all.

\* The visits were often begun earlier and continued later.

† Dr. Gavin attributes the success of Mr. Chapman, one of the lay visitors in Shore-ditch, to his frequently and voluntarily commencing his rounds at, and even before, six a.m.

I have myself constantly found this fear preventing the disclosure of disease and of causes of ill health, and I have been entreated by the poor not to mention that they have informed me of their illness, or of the wretched state of their houses. In Ann's-place, Hackney-road, a most respectable mechanic nearly lost his own life, and the lives of his family, rather than make any complaint. The same feeling prevails almost universally among the poor."

*Lay Visitors.*—In some few parishes the medical officers employed respectable women to aid them to discover premonitory attacks; and the result appeared to be satisfactory. As this would of course be an economical measure, I was very anxious to ascertain if respectable men and women could be thus employed with advantage, but always in strict subordination to the proceedings of the medical visitors and medical officers; and in some few localities the plan was tried. The result on the whole was not encouraging, owing to a variety of causes, most of which, however, would not appear to be insurmountable. When the lay visitors are men, there is a great and natural difficulty as to females communicating with them as to their complaints; then it was difficult to find persons of suitable qualifications and conduct. Owing to these and other circumstances, the medical visitors, and some of the inspectors, are unfavourable to lay visitation. But I feel assured that, when the vast importance of seeking out persons affected with premonitory diarrhoea becomes generally known, if unhappily cholera should again break out, a well-organised plan of lay visitation would prove most beneficial. But to secure such a result, the zealous and sustained co-operation of the higher classes, and, more than all, of the clergy of all denominations, would be indispensable. The selection of the lay visitors would require the greatest caution; none but persons of tact, benevolent feeling, and proved good conduct should be chosen; females of a respectable, and even of a superior grade, would be the best adapted in many instances for the purpose; Scripture readers would also form a desirable class from which to select. It would be quite essential that the object of the procedure should be explained to the people by the medical men and clergy of the district, and by those benevolent persons, especially ladies, who visit and are known to the poor. But the great point would be to make the lay, work entirely in harmony with, and in subordination to, the medical visitation. When thus carried out in London, good results followed; thus, in Shoreditch, where five lay visitors were employed, Dr. Gavin says,—

"The chief use of the lay visitation was to place those affected with diarrhoea in communication with the medical officers, and to report nuisances. The first of these duties they performed to a great extent in Shoreditch; the dispensary returns (that is, cases relieved at the surgeries of the medical officers) exhibited a very large increase in the number of applicants immediately on the establishment of lay visitation under efficient superintendence, and this increased number was fully sustained to the termination of the epidemic. I think it fair to state that the lay visitors by sending so many to the dispensaries for relief greatly lessened the outdoor labour of the medical officers, and also diminished the number of cases which would otherwise have been discovered by the medical visitors."

In thus alluding to lay visitation, it is essential to guard against the error of its being supposed that this measure can ever be made a sub-

stitute for the employment of medical men in a district visited by cholera; none but properly qualified professional persons can afford efficient aid, or, as to the treatment of the disease, gain the confidence of the poor.

*Testimony of the Poor in regard to the Preventive System of House-Visitation.*—That a system thus capable of snatching thousands, almost within the very grasp of this fatal disease, from the terrible stage of collapse, should be regarded by the persons who were themselves in such perilous circumstances, and by their friends and neighbours, with any other feelings than those of gratitude, could not reasonably be anticipated; nor, when it was seen that an epidemic, which appeared to seize its victims suddenly and without warning, had almost invariably a premonitory stage of several hours' or even days' duration, in which, as if by magic, its course could, with but few exceptions, be arrested, would it be expected that alarm, in place of confidence, should be inspired. And yet one of the objections most generally urged by the local authorities against the substitution of the preventive system of house-visitation for the existing insufficient machinery was, that such a procedure would cause great alarm among the poor, and would thus augment the evil. In answer to such objections, I represented that alarm was already general among all ranks, owing to the number of attacks and the severe mortality; that to send medical aid into the midst of the afflicted districts, and thus to afford prompt and efficient treatment to those seized by the fatal epidemic, was obviously calculated to abate rather than to create apprehension; whilst the manifestation of such care on the part of the authorities would give to the inhabitants of the miserable courts and alleys of the metropolis, unmistakable evidence of active sympathy on the part of the higher classes in their fearful sufferings. But my urgent representations, or solicitations, as they might more properly be termed, were for the most part made in vain; and it was not, as it has been already shown, until a large number of victims had been swept away, or that legal means were adopted to enforce the measures of the General Board, that the system was at length adopted, and that most imperfectly. That this confidence in the good sense and right feeling of the people was not misplaced has been shown, as would have been anticipated by all who really know the sentiments of the poor, by universal experience; the accounts received from the inspectors concurring in the statement that the medical visitors were received with eagerness, and their aid accepted with gratitude. It is so essential that for the future there should be no misconception on this point, that some detailed evidence will not, it is conceived, be here misplaced.

The following important statement is taken from a letter addressed to Mr. Liddle from the four medical visitors of Clerkenwell:—

"In reply to the question as to the manner in which the system of house-visitation is received in this parish, we have great pleasure in observing that it is almost universally regarded as a great boon; that the visitors, on the object of their visit being perfectly understood, are everywhere received with expressions of gratitude and good feeling; that it substitutes a feeling of confidence for that of alarm, on the persons visited being assured that a disease, which they had been led to believe was always

sudden in its attack, fearfully rapid in its progress, and almost invariably fatal, is, on the contrary, in most cases preceded by a milder form of disorder quite under the control of medicine. Many who had been labouring under diarrhœa for some time were induced to use the necessary measures, and have recovered. The system, in fine, is regarded by the people as a great measure adopted to meet a great and special emergency; consequently those who are ordinarily averse to receive parochial or other gratuitous assistance, exhibit no reluctance in availing themselves of all the advantages of the system."

The following passage is also extracted from the Report of Mr. Liddle, and refers to the populous districts which he superintended:—

"At an early period of the epidemic, before the people were so generally aware of the importance of attending to the premonitory stage of the disease, neglect of diarrhœa was by no means of unfrequent occurrence; but so soon as the visitors enlightened the minds of the poor upon the subject these instances became more rare, and the prompt assistance which was afforded them in administering medicines upon the spot not only checked the disease in those who were suffering from the early stage, but inspired hope and confidence to all in the neighbourhood. The mere knowledge that medical aid could be immediately procured allayed alarm; and this conducted in no small degree to fortify the system against an attack. Several members in a family were attacked with cholera at the same time, so that it was impossible for any of them to go for medical assistance; and had it not been for the visitors discovering such cases, many would have perished without the consolation of having received any medical advice."

In another part of his Report Mr. Liddle adduces striking evidence to show that the poor are sensitively alive to the physical evils by which they are encompassed, that they are anxious to escape from them, and that they are grateful to those who interested themselves on their behalf. He says,—

"That a good moral effect was produced upon the minds of the people by the medical visitors was frequently manifested by the urgent desire expressed on the part of all, except the very lowest class of Irish, to remove the nuisances wherewith they were surrounded. The poor are now becoming more fully sensible of the physical evils which beset them, and earnestly desire to have them removed. 'They came out in crowds,' says a highly intelligent member of the Whitechapel Sanitary Committee, 'to thank those individuals who were interesting themselves in removing the abominations which abounded in nearly all the localities inhabited by them.'"

The experience of the gentlemen engaged as medical visitors in the parish of Islington, seven in number, has been already quoted.

Mr. *Kay*, one of the visitors of St. Luke's parish, says,—

"The poor are fully satisfied, and seem always willing to listen to any suggestion tending to improve their sanitary condition; they are also most grateful, and are anxious to assist by giving all the necessary information in order to carry out fully the visiting system."

One of the visitors, Mr. *R. Molloy*, says,—

"I have visited hundreds of houses and conversed with thousands of the poorest class, and I have never heard one dissentient from the general opinion; namely, that the system of visitation was received by them with feelings

of gratitude and thankfulness, not unmixed with surprise at the Legislature having thought of them at last: this is their own expression."

Dr. *Gavin*, in his Report, thus expresses himself:—

"In endeavouring to express the general sentiments of the recipients of medical aid during the house visitation, it is difficult to convey, in other terms than the simple, unaffected language of the poor, their deep, heartfelt gratitude for the interest thus manifested towards them.

"In some places the gratitude of the poor is stated by the visitors as having been unbounded. Mr. *Sutton*, one of the medical visitors, says,—'I candidly say, a more grateful body of people, as I discovered them, could not be found.' Mr. *Ayling* says,—'I was greeted with benediction and hailed with gratitude.' Mr. *Webb*, after stating that the gratitude of the poor exceeded his expectation, says, 'I mention one circumstance worthy of record: while visiting Long-alley a man in liquor accosted me with—'Give us a good dinner, and we shall have no cholera;' and, following up this remark with insult, I had some difficulty in preventing a mob, which soon collected, from severely chastising him for his conduct.' Dr. *Baylis* says, 'One and all have been exceedingly grateful.' Dr. *Mogg* states they were on all occasions exceedingly grateful; to use their own words—'they are thankful for being looked after.' Mr. *Barnett* remarks,—'Never was an assertion so wide of the truth as that the poor are ungrateful; the poor in my district were in the utmost degree thankful.' Mr. *Ferguson* says,—'They have looked upon our staff as messengers of mercy, and welcomed us with many kind outpourings of grateful hearts; they felt that, though hitherto uncared for in their dire and dreadful calamity, at last the Board of Health had come forward as beneficent guardians of their health, and quieted alarm by efficient preventive measures.' Mr. *Tuxford* observes,—'The poor look upon the medical visitation with the greatest affection; we are sought after and loaded with blessings; and the poor only lament that we were not appointed before, and that they are so soon to lose us.' Mr. *Brown* remarks, 'I have often been addressed with expressions of joy during my progress through the courts and alleys in which the poor reside, upon the prospect of amelioration in their wretched condition.'"

Dr. *Lewis* reports as follows of the feelings of the poor in the parishes and unions under his charge:—

"The medical house visitation was received with the greatest thankfulness. In the overcrowded districts the poor eagerly told the visitors their complaints, and received the medicines most gratefully. The instructions and advice were anxiously obeyed, and the visits were looked for in future. The people told me in several cases that they believed their lives were saved by being called upon by a medical man, while suffering from the weakness consequent upon the premonitory symptoms, instead of having to go to the surgeon, and finding then that he was attending another case. Two or three instances occurred within my own knowledge, of proposals being made by the poor for the purpose of presenting the visitors with some small testimonial, to mark their thankfulness for the benefits derived from their having been visited and comforted during a period of great affliction."

Dr. *Lewis* also points out another great advantage attendant on the system. He says,—

"Close observation and inquiry convinced me that a great moral effect was created in the districts where the system was well carried out. As soon as it was known that a staff of properly educated men were employed for the sole purpose of attending to the epidemic by the order of Government, a large degree of the terror which had seized on people's minds left them."

Mr. *Walsh*, who superintended several unions on the south of the river, says,—



“The feeling of cordial kindness with which the medical visitors were received by the poor, and the people generally, was a gratifying proof that they appreciated the benefit of their visits. The medical officers too were generally very highly spoken of.”

The only qualification it is requisite to make in the preceding statements is, that in some very limited and exceptional cases the visitors were rudely received; but it is proper to remark that this happened almost exclusively among the class above the poor, which therefore did not contain those for whose special benefit the plan was designed.

Dr. *Gavin* thus sums up the feelings inspired among the poor by the system of house visitation:—

“It seems to have given them a new confidence in the spirit of the institutions of their country, and to have inspired a feeling of regard for those above them which was quite unknown before. From my own personal inquiries I am satisfied it has done more to establish a bond of union in feeling between the neglected poor and the classes above them, than could have been aroused in any other way, or by any other means.”

It cannot be a matter of surprise that, when the results of the effectual medical aid thus afforded were brought so strikingly before the eyes of the people, deep regret should have been expressed in all parts of the metropolis that the preventive system had not been earlier adopted. Dr. *M'Loughlin* reports that in *Stepney* the poor, seeing in a very brief period that the progress of the disease was arrested by the medical visitation, exclaimed, partly in reproach and partly in sorrow, “Ah! if this had been done sooner our relatives, who are now in their graves, would have been alive.”

Mr. *Liddle*, who had charge of *St. Luke's* parish, in his Report quotes the evidence of Mr. *Snell*, one of the medical visitors, who says,—

“He finds it an almost universal regret that the system of house visitation had not been recommended earlier, as many believe ‘that would have saved the life of a departed relative.’”

Another gentleman, Mr. *Webb*, who acted under Dr. *Gavin*, says,—

“When one of a family has been relieved it is no uncommon observation amongst them—‘You are come too late; had you come before, my husband, wife, or child, would now be alive.’”

Dr. *Lewis* observes,—

“It was a remark by no means unfrequently made by persons who had lost relatives at the commencement of the epidemic, that, if the house-to-house visitation had commenced earlier, their friends might have been saved.”

The few examples last adduced must suffice to indicate the existence of a wide-spread and most natural feeling which, the sentiments of every individual will readily suggest, must have constituted probably the bitterest element of that cup of misery, which so many thousands of mourners drained during the late destructive epidemic.

*Review of House Visitation.*—In considering the various circumstances detailed in the preceding pages, the main and leading fact to be deduced from them is the extraordinary efficiency of house visitation in

controlling the ravages of epidemic cholera. Whatever difference of opinion may arise as to the precise amount of this preventive influence, one thing is beyond dispute, namely, that, as compared with all other modes of managing this terrific disease, medical visitation is incomparably the most successful. In all parts of London practitioners and medical officers became converts on observing the results; every individual who was engaged in carrying out the plan, whether as inspector or visitor, whatever may have been his previous opinions, has given his unqualified approval of the system. In various parts of the country the plan has been adopted, and everywhere the physicians and surgeons engaged in it have expressed their conviction of its entire efficiency. But if all other testimony were wanting, there is one which is of a nature that can be touched neither by friend nor foe; it is the witness of hundreds, perhaps we ought to say thousands, of the poor in every part of this metropolis, who have found in their own unlooked-for safety the proof that a remedy had been for them provided, for the want of which their relatives and friends had perished.

Results of this important character would, under any circumstances, be sufficient to stamp this system as the one effective method; but it must not be forgotten that it was not put into operation until great efforts had been made, by the provision of extra medical aid, by the admirable devotion of the ordinary medical staff of the several unions and parishes, by placards and other means, to secure early and effectual aid to the suffering poor. A plan which, after such exertions as these had been in operation for several months, was so much more successful as to attract the general attention, and secure the approbation of all who witnessed its operation, must have had within itself a principle of great excellence. There are, however, other considerations which suggest themselves in connexion with the house visitation. This great measure is the first general effort that has yet been made in the metropolis to investigate and rectify, by the direct agency of medical men, the sanitary evils afflicting the poor; and from the improvement which, in every instance, is reported by the visitors to have followed even the partial application of the appropriate means, some idea may be formed of the advantages and comfort which would be secured to the labouring population from their universal adoption.

The house-visitatio has placed in a strong light the many evils connected with the existing mode of medical relief to the poor. There is a remarkable agreement in the statements of the visitors employed in different quarters of the metropolis as to the deep aversion existing among the labouring classes in regard to their acceptance of parochial medical aid, and the consequent mischief thence arising. The delay and impediments in the way of obtaining the necessary order, and the subsequent advice and medicine; the loss of wages; the distaste for pauper relief;—these are so many obstacles intervening between the actual existence of disease and the treatment it demands. And yet there is nothing more to be deprecated than such delay. Trifling complaints by neglect become serious; acute affections become chronic; whilst maladies perfectly curable in their incipient stage take such hold on the system, that they either bring their victims to a premature grave, or disable them from all profitable labour by months or years of sickness. It might be thought that what was wanting in the parochial system in

this respect would be supplied by hospitals and dispensaries; but, vast as are the benefits bestowed by these institutions, they only very partially meet the evil in question.

To those who are unacquainted with our town populations, the large pecuniary sacrifice thus caused is but little comprehended; and yet, if to the neglect of the early assaults of disease be added the amount of sickness induced directly by removable causes, it may be safely asserted that, of all the sources of pauperism, these two are the most prolific. Even to those directly engaged in administering the parochial funds, the true cause of so much of the outlay they wish to escape is often unsuspected; or, if placed before them, repudiated.

It is the opinion of all who have been engaged in carrying into operation the preventive measures of the Board of Health, that great benefit would accrue, both to the community and to the poor, from any plan which would secure to the labouring classes prompt and acceptable medical aid in every form of sickness.

I cannot conclude this section of the present Report without offering my humble tribute of respect to what, among so many painful circumstances, is so gratifying as to the past, and so full of promise for the future—the admirable conduct of the people under the awful calamity with which it pleased Almighty God to visit this metropolis. In the midst of an amount of physical misery which no language can depict, and exposed to the ravages of a pestilence which within the limits of Europe, nay, within these kingdoms, have in this last epidemic created in the popular mind dark suspicions of the higher classes of society, and specially of those who know no other mission but to mitigate the bodily sufferings of mankind, the industrious poor of London have submissively borne their trials—so submissively, indeed, that no voice of complaint reached the public ear; though it is proved, by the unanimous testimony of a large body of medical men, that our humbler fellow-citizens are as acutely sensible to the manifold evils by which, in the filthy courts and alleys of the metropolis, their health is undermined, and their lives are sacrificed, as they are ready to tender their gratitude for any well-directed efforts designed for their relief.

### CONCLUSION.

HAVING day after day, and for months in succession, been a witness of the great evils springing from the neglected sanitary condition of the metropolis, I have felt no choice was left me but to place on record the more important facts respecting it which have been brought before my notice; and as I have repeatedly observed that the authorities of one district, whilst admitting that in other places there might be neglect, affirmed that their parish required little or no amendment, it further seemed to be necessary, even at the risk of appearing prolix, to adduce illustrations from all parts of the metropolis. It is, indeed, one of the great difficulties those who are anxious to ameliorate the condition of the poor experience, that a large part of the influential classes of society know personally so little of the localities and dwellings

occupied by them. Many instances have occurred, during the late inquiries, in which, even in country towns, individuals among the higher classes, having been induced to visit the more destitute districts, have expressed their surprise that a condition so miserable as that in which they found their poorer neighbours could have a real existence. I have myself never conversed with any one well acquainted with the subject who was not profoundly impressed with the evils connected with it. The members of the medical profession, in the presence of these physical evils, when they are, as so often happens, concentrated, find their science all but powerless; the minister of religion turns from these densely crowded and foul localities almost without hope; whilst the administrators of the law, especially the chaplains and governors of prisons, see that crime of every complexion is most rife where material degradation is most profound. In an important document lately published, containing the Reports of the governors and chaplains of the Houses of Correction at Coldbath-fields and Westminster, it is stated, as the result of the experience of these most competent judges, that, among the causes of crime, the miserable condition of the dwellings of the labouring classes holds a prominent place. The following paragraph from the Report of G. L. Chesterton, Esq., places this in a strong point of view:—

“The crowning cause of crime in the metropolis is, however, in my opinion, to be found in the shocking state of the habitations of the poor, their confined and foetid localities, and the consequent necessity for consigning children to the streets for requisite air and exercise. These causes combine to produce a state of frightful demoralization. The absence of cleanliness, of decency, and of all decorum—the disregard of any heedful separation of the sexes—the polluting language and the scenes of profligacy hourly occurring,—all tend to foster idleness and vicious abandonment.” “Here I beg emphatically to record my conviction, that this constitutes the *monster mischief*.”

If, to considerations like these, regarding the moral and religious aspect of this great question, be added those suggested by the indescribable physical sufferings inflicted on the labouring classes by the existing state of the public health in the metropolis, the conviction must of necessity follow, that the time is come when efforts in some degree commensurate with these great and pervading evils can no longer with safety be deferred. Although the higher and middle ranks of society experience a comparative immunity from the ravages of epidemics, an exemption in itself suggestive of some great offering of gratitude to the Giver of all good gifts, it is yet well known that, when these diseases attain to a certain intensity, they break through their ordinary barriers, and, as happened a few years ago at Liverpool, the most unhealthy city in England, spread death and alarm among even the highest classes. It cannot, therefore, be aught else than an anxious consideration to all ranks that in 1848, independently of the cholera, the mortality from zymotic diseases in the metropolis was, by several thousands, higher than it had ever been before, namely 18,113; that it exceeded the whole mortality from cholera in the last epidemic by 3523; that it was double the mortality from zymotic disease in 1845; and approached to three times that of 1842. If, turning from this, the lowest, because the selfish view of the question, to the fact that thousands of the poor are compelled, owing to the scarcity of one prime necessary of life, to use for domestic purposes, nay, even to drink, water

drawn from ditches and wells polluted with the fœtid overflowings of cesspools, a motive for the exertions and self-sacrifices of philanthropy is indicated, which, in a metropolis pre-eminently distinguished for its sympathies with suffering in all its forms, requires, to insure its adoption, only to be known. But there yet remains for the highest of all reflections, that of the Christian, the fact that, owing to the concentration of all these physical ills, the great majority of which, it must never be forgotten, are susceptible of removal, the span of existence allotted in mercy for the preparation for another world is fearfully curtailed in all the densely populated districts of London, the climax being attained in one spot, where the value of human life is cut down to the brief space of eleven years and a half.

In concluding this Report, I beg to state that I have obtained a large amount of information from the valuable reports of the Medical Inspectors appointed by the General Board to superintend the system of house visitation in London, and especially from those of Dr. Gavin, Dr. Waller Lewis, Dr. Macloughlin; Mr. Liddle, and Mr. Walsh. I also feel it to be an act of duty to these gentlemen to state, that during the time they were thus engaged they most zealously devoted themselves to the discharge of the important duties with which they were intrusted; and to the very able manner in which those duties were performed, seconded by the great exertions of the Medical Visitors, I attribute a large part of the success that resulted from the application of the preventive measures directed by the General Board; measures which, under the Divine blessing, were the means of saving a large amount of human life. Some extracts will be found from the interesting reports of Dr. Milroy, on certain parts of the metropolis. To Mr. H. C. Edwards I am indebted for the preparation of several statistical tables, and for other assistance.

I have the honour to be,  
My Lords and Gentlemen,  
Your most obedient servant,  
R. D. GRAINGER.

June 10, 1850.

## APPENDIX.

### CONTENTS.

- No. 1.—Return of Deaths from Cholera in the 60 weeks ending November 24, 1849.
- No. 2.—Analysis of Deaths from Cholera in the Metropolis during the 60 weeks ending November 24, 1849.
- No. 3.—Analysis of Deaths from Cholera in the Metropolis during the 60 weeks ending November 24, 1849.—Males and Females.
- No. 4.—Dr. Guy's Abstract of the Professions and Occupations of 4312 Males, of the age of 15 years and upwards, who died of Cholera in London during the epidemic of 1848-9, with a rough approximation to the ratio which the deaths bear to the living.
- No. 5.—Dr. Waller Lewis' Report on Investigation into alleged cases of Contagion from washing Cholera Clothes.
- No. 6.—Copy of a Letter from the Rev. Charles Marshall, Vicar of St. Bride.
- No. 7.—Directions and Regulations issued by General Board of Health to Poor Law Guardians and others.
- No. 8.—Extract from the Evidence of J. Hodgson, Esq., on Dr. McCann's Plan.
- No. 9.—Instructions as to the Duties of the Medical Superintendents and Visitors of the Metropolitan Districts, in carrying out the Preventive Measures of the General Board of Health.
- No. 10.—Specimen of Dr. Gavin's Daily Return of Choleraic Disease in each Parish.
- No. 11.—Return of Choleraic Disease in the Parish of Bethnal-green, in the practice of the Parochial Medical Officers, and discovered by the Visitors during Visitation.
- No. 12.—Mr. Liddle's Table of the Progress of Cholera, &c., in the Parishes of St. Luke, Islington, and Clerkenwell, and in the Whitechapel Union.
- No. 13.—Copy of a Letter from the Rev. W. Weldon Champneys, Rector of Whitechapel.