The Medical Profession and Epidemics in Ireland

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Abstract

In the nineteenth century, the Irish social conditions were badly deteriorated. The inhabitants of the city of Dublin, for example, lived in overcrowded accommodations marked by their unhealthy conditions. Some families even shared their single rooms with lodgers in order to be able to pay the rent. Due to the overcrowding, the death toll in Dublin reached dramatic proportions. The official reports of the time emphasised the fact that the rate of mortality was mainly high among the poverty-stricken section of the society. This paper seeks to provide a careful examination of the context in which the major epidemics happened in nineteenth-century Ireland. Central to the paper's study is the degree of the government's contribution to the financial cost of medical relief. In doing so, it tries to show the degree of the official willingness to mitigate the epidemics. Moreover, it seeks to assess the nature of the medical profession's response to contagious diseases. In this context, it tries to examine the different theories and practices adopted by the doctors of the time in an attempt to halt the spreading out of epidemics along with the public attitude towards them.

Key words: Ireland, nineteenth-century, epidemics, fever, medical relief

İrlanda'da Tıbbi Uzmanlık ve Salgın Hastalıklar

Özet

19. yüzyılda, İrlanda'nın toplumsal şartları ağır şekilde kötüleşti. Dublin şehir halkı, mesela, sağlıksız şartlarda kalabalık yerleşim alanlarında yaşadılar. Hatta bazı aileler, kiralarını ödeyebilmek için tek odalarını kiracılarla paylaştılar. Aşırı nüfus yoğunluğu nedeniyle, Dublin'deki ölenlerin sayısı çok yüksek oranlara ulaştı. Dönemin resmî raporları ölüm oranını toplumun yoksul kesiminde yüksek olduğunu vurgulamaktadır. Bu çalışmada 19. yüzyılda İrlanda'da meydana gelen salgın hastalıklar bağlamında bu durum ele alınmaya çalışılacaktır. Makalenin ana teması hükümetin tıbbi yardımlarının mali külfetine katkısının derecesidir. Böyle yaparak, salgın hastalıkların azaltılmasında hükümetin istekliliği gösterilmeye çalışılacaktır. Buna ilaveten, bulaşıcı hastalıklara tıbbi uzmanlığın müdahalesinin doğası değerlendirilmeye çalışılacaktır. Bu bağlamda, dönemin doktorları tarafından kabul edilen farklı teoriler ve uygulamalar irdelenerek salgın hastalıkları durdurma girişimleri ve buna yönelik halkın tutumu incelenecektir.

Anahtar Kelimeler: İrlanda, on dokuzuncu yüzyıl, salgın hastalıklar, humma, tıbbi yardım

In the nineteenth century, the Irish social conditions were badly deteriorated. The inhabitants of the city of Dublin, for example, lived in overcrowded accommodations marked by their unhealthy conditions. It was estimated that half the total number of families crowded in single rooms. Some families even shared their single rooms with lodgers in order to be able to pay the rent. Due to the overcrowding, the death toll in Dublin reached dramatic proportions[i]. The official reports of the time emphasised the fact

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that the rate of mortality was mainly high among the poverty-stricken section of the society. After studying the living conditions of the people in Dublin, one of the founders of the Dublin Statistical Society, William Wilde, made a correlation between poverty and the rate of mortality. He concluded that mortality reached unprecedented levels in the poorest areas while it was low in the rich areas[ii]. The dilapidated social conditions in Ireland resulted in the outbreak of many epidemic diseases such as typhus, cholera and smallpox. This paper seeks to provide a careful examination of the context in which the major epidemics happened in nineteenth-century Ireland. Central to the paper's study is the degree of the government's contribution to the financial cost of medical relief. In doing so, it tries to show the degree of the official willingness to mitigate the epidemics. Moreover, it seeks to assess the nature of the medical profession's response to contagious diseases. In this context, it tries to examine the different theories and practices adopted by the doctors of the time in an attempt to halt the spreading out of epidemics along with the public attitude towards them.

The subject of epidemics and the way in which the British government of the time handled the situation could only be better understood in the context of the historiographical debate over Irish history. The nationalist-revisionist debate undoubtedly takes into account the nature of the British government's response to the diseases in Ireland. An evidence of the government's indifference to the impact of diseases upon the Irish people could support the nationalist agenda while a highly interventionist policy in this field could defend the revisionist idea that British policies in Ireland were not at the expense of the Irish[iii].

The revisionist account of the incidence of epidemics does not hold the British government of the day responsible for mass mortality. In *The Great Famine Studies in Irish History*, Sir William P. MacArthur states that the fever and epidemic diseases were bound to happen once the Famine broke out. He defends the way in which relief was administered to the paupers in Ireland. He also objects to the idea that the relief schemes contributed to the expansion of diseases. In response to the Commissioners of the Board of Health's criticism of the government's role in spreading epidemics, he explains that fever also happened in times where no relief was provided to the paupers. Furthermore, he argues that if the government had adopted a highly interventionist policy to face the expansion of epidemics, doctors would not have been able to remedy the situation:

> In blaming the relief measures for spreading disease by causing crowds of the destitute to congregate, they forgot, or did not choose to remember, that famine fever had ravaged Ireland, long before anyone dreamt of poor laws, relief acts, or government aid. In what way nearly three million persons could receive food gratuitously from the hands of relief officials in one single day...without causing the recipients to gather in crowds in the process, they did not explain.... It does come in the scope of this survey to discuss the possible results if the food shortage had been handled from its beginning with generosity, vigour and foresight. But once famine had the country in its grip, fever was inevitable, and no board of health at that date, even if given dictatorial powers and unlimited funds, could have brought the epidemic to a speedy and dramatic end[iv].

The understatement of the impact of the government's financial contribution to the mitigation of epidemics minimises the responsibility of the British officials towards the issue of mortality. Unlike nationalist accounts, revisionists seek to promote uncertainty about the positive impact of an interventionist policy.

Contrary to MacArthur's conclusions, Joseph Robins argues that the government did not try to address the real problems of the Irish people. Instead of helping the paupers and the sick in Ireland, Robins states that the British government of the day disengaged itself from the provision of aid. Therefore, he concludes that the financial contribution to the provision of medical relief on the eve of the Famine was very limited:

> Policy remained firmly anchored in the belief that poverty and illness lay outside the remit of government and that the resolution of such social evils was a matter for the people themselves and should not become the burden of the ruling classes. Probably because these classes themselves were at risk the measures taken during the cholera epidemic were more generous than previous government interventions. In the light of the fact that tens of thousands of people were struck by cholera, that thousands died from it and that the episode seriously aggravated the dreadful social conditions of much of the population, the government contribution was very small indeed[v].

Apart from criticising British politicians, Robins also holds the Irish politicians equally responsible for the degraded status of the people in Ireland. He states that Irish politicians deliberately lowered the social conditions of the people who became vulnerable to diseases. Robins also examines the social conditions that motivated the expansion of epidemics as well as the role of doctors[vi].

Any study of nineteenth-century Ireland should certainly take into account the role of the British government in improving the social status of the people. Being part of the UK after signing the Act of Union in 1800, Ireland became subject to the decisions of the British parliament. Therefore, British politicians could be held responsible for the degraded social status in Ireland. An examination of the official records of the time shows that relief policy-makers gave priority to the principles of Political Economy at the expense of the Irish paupers[vii].

In the beginning of the nineteenth century, the provision of medical services mainly depended upon the charity of wealthy individuals who contributed not only to the building of hospitals but also to the funding of the activities of those institutions[viii]. The rural areas depended upon the services of the infirmaries established under the provisions of an Act of Parliament introduced in1765. However, the governmental legislation did not result in good services to the inhabitants of the rural areas. Due to the fact that the operation of the infirmaries had to be funded from private charity, many infirmaries suffered from the shortage of funds in the poorest regions in Ireland. In 1805 the Grand juries were authorized to raise taxes for the building and the funding of dispensaries in the

areas far from the infirmaries. These institutions were expected to provide services for the sick poor during both normal times and epidemics[ix].

Apart from the bad medical services in the rural areas, Dublin Hospital and county hospitals throughout the country failed to meet the needs of the people. Most of the hospitals suffered from both the shortage of funds and staff. In Meath hospital, for example, there were only two nurses providing services to all the patients. This resulted in the fact that sick people in the hospital were only supported by their friends and relatives. The latter cooked for the patients who were doomed to starve due to the serious shortage of food in the institution. Moreover, the remuneration of doctors badly influenced the operation of hospitals. Most of the wages were too low to enable a daily attendance of doctors[x]. Some doctors even worked gratuitously for a period of time in some hospitals. The doctors recruited at the Cork Street Fever Hospital, for example, did not get a wage during their first year of employment and their full remuneration should not exceed 50 pounds for five years of employment. In some cases the government even avoided paying the wages of doctors. Despite the fact that Dr W. Harvey was employed by the British government to take care of fever patients in Dr Steven's Hospital, he did not receive his wage for the services he provided to his patients[xi]. Undoubtedly, the government adopted a policy of financial retrenchment in the field of medical services in Ireland. It was a fundamental concern to government officials that the expenditure upon the treatment of epidemics had to be brought to minimum.

The period between 1816 and 1818 was marked by the outbreak of epidemic diseases in Ireland. Typhus was among the dangerous diseases that claimed human lives during that period. The outbreak of the latter alarmed the public because of its deadly nature. According to our modern medical knowledge, typhus grows quickly in conditions of dirt. The scientists have shown that the microorganism of typhus could be carried by fleas, lice and could be transmitted through all categories of mite[xii]. Rats, for example, played a major role in spreading typhus. The lice that fed on them carried the disease from rat to rat. When the lice fed on humans the disease was transmitted to them. The symptoms of typhus include fever, headache, pain in muscles, body rashes, delirium and mental confusion[xiii].

Despite the dangerous consequences of fever and typhus upon the population, the government adopted a policy of non-intervention. In 1817, a committee was established by the Lord Lieutenant in order to control the expansion of diseases throughout the country. The main role of the committee was to examine the applications made by the localities in order to get financial help for providing relief to the patients. The government mainly sought to deal with extreme cases of emergency since only the areas where fever was predominant could be regarded as eligible. However, the predominance of fever in the localities was not the only criteria for the government intervention. The fever-stricken localities had to show that their wealthier residents had already made a financial contribution to defray the cost of medical relief. Consequently, the government made the influential people financially accountable for the cost of medical relief[xiv].

Following the outbreak of fever in 1818, the government introduced a legislation which empowered the localities throughout Ireland to set up committees to make the necessary preparations for facing the epidemic. The committees could build

accommodation for fever patients. The costs of building hospitals and dispensaries and the treatment of fever patients were to be defrayed from the rates collected by the Grand Juries. Moreover, the latter could strike a rate for meeting the expenses of temporary measures during epidemics. There is no doubt that the government's measures were marked by the principle of local responsibility. The funding of the medical services derived mainly from the collection of rates in the different localities. Even in cases of shortage of funds, the Lord Lieutenant could make advances of money to be paid later by the localities[xv].

It is worth noting that the Catholic Church proved to be active in helping the sick people. Many charitable organisations were established to provide a wide range of Catholic services. The Catholic nuns, for example, founded their own organisations in order to provide nursing services. Being influenced by the French organisation *Fille de Charité*, the Irish nun Mary Aikenhead founded the Irish Sisters of Charity in 1816. The nuns of Aikenhead's organisation not only visited the sick in their homes but also acted as nurses in the hospitals during epidemics. Aikenhead even sent nuns to France to learn the nursing service under the supervision of a French charitable association[xvi]. The efforts of Aikenhead led to the foundation of the St Vincent's Hospital in Dublin in 1834. The latter was the first Catholic hospital in Ireland[xvii]. Apart from Aikenhead's organisation, Catherine McAuley founded another Catholic women organisation in 1827 providing services to the sick paupers both in their homes and in hospitals. Contrary to state hospital nurses, the Catholic nurses proved to be better trained and better educated. They were also better accepted by the Catholic poor since they shared the same religious background. In fact, many poor Catholics refused to go to the state hospitals because they highly resented the Anglo-Irish authorities[xviii].

It is worth noting that the government's handling of the epidemic and the dilapidated social conditions were highly criticized by a number of associations in Ireland. In Dublin, the Association for the Suppression of Mendicity was established in 1818 in order to end the flow of famished beggars to the city. The Association included members from both the Catholic and Protestant clergies as well as leading figures in the town such as the Lord-Mayor and the Duke of Leinster. Despite the fact that the Association objected to the migration of the paupers to Dublin, it did not blame the situation on them. Instead, its members tried to urge the government to improve the conditions of the poor and sick[xix].

A group of doctors also supported the Association's demand for a better control of the increasing number of beggars. Their main objective was to improve the situation of the needy in Dublin in order to halt the progress of the epidemic. Faced with the dramatic increase of the number of patients in the city, they suggested to the under-secretary prompt measures under the supervision of the Association for the Suppression of Mendicity. However, their suggestion was rejected on the ground that the existing governmental measures represented an adequate form of relief[xx]. The view that gave center stage to social conditions as significant factor influencing the health of population has been confirmed by modern researchers. Modern research has shown that the social conditions could be regarded as fundamental causes of disease and death[xxi].

After the introduction of the Irish Poor Law Act of 1838, the services provided to the sick came from not only the medical charities but also the Poor Law. It is worth noting that the researcher Peter Froggatt held a positive attitude towards the hospital network on the eve of the Famine in Ireland[xxii]. He indicated that the medical facilities were plentiful by the European standards of the time:

> On the eve of the famine the facilities were adequate (in contemporary terms) for normal demand; by the standards of much of Europe they were lavish. The workhouses and their fever "hospitals" had spare accommodation; the district and county fever hospitals met cyclical demand by blatant overcrowding and other expedients, rarely by erecting temporary huts or sheds, and when the fever abated extra staff crept quietly away, no longer a charge on charitable or public funds[xxiii].

Though the fever hospitals met the needs of people during normal times, they proved to be unable to provide adequate services to the large numbers of sick people. An examination of the official reports of the period shows that the commissioners of the Board of Health acknowledged the weaknesses of the very system they were administering. They stated that the funds were too limited to provide both outdoor and indoor medical relief to the fever patients:

> The county infirmaries had not provision for the accommodation of fever patients. The county fever hospitals were destitute of sufficient funds, and dispensaries, established for the purpose of affording only ordinary outdoor medical relief could, of course, afford no efficient attendance on the numbers of destitute persons suffering from acute contagious diseases in their own miserable abodes-often scattered over districts several miles in extent[xxiv].

Despite the fact that the Board of Health acknowledged the limitations of the hospital accommodation throughout Ireland, it indicated that the increase in the demand for more accommodation did not reflect the realities of the Irish people. The commissioners of the Board stated that in many cases the applications for more funds were not "absolutely required"[xxv].

In 1845, there were 101 fever hospitals throughout Ireland. The funding of these institutions depended on both private charity and the rates collected in the localities. Though the landlords' fear from contagion made them support the fever hospitals, the latter seemed to be unable to provide adequate services during epidemics. They were overcrowded with dangerously sick inmates many of whom died due to the inability of doctors to cure them. More importantly, they were not equally spread throughout the country. Cork, for example, had 13 fever hospitals while Longford, Louth and Roscommon had none[xxvi].

It is worth noting that the public opinion in Ireland held a negative attitude towards the fever hospitals. The latter were feared by the people since they regarded them as places of contagion and death. In fact, the news of building a fever hospital in a locality often resulted in the indignation of the inhabitants. In 1846, in Clonakilty, County Cork, people

refused to rent an accommodation to the members of the Local Relief Committee for building a fever hospital. People objected to the building of the fever hospital both inside and outside the town. Though there was a need for a fever hospital in that locality, the Local Relief Committee's attempt to provide an accommodation for the sick created a mood of alarm and terror[xxvii]. The fear from contagion also led to xenophobia. In order to reduce the number of fever patients and minimise the risk of contagion, the mayor of Cork prohibited the entry of beggars to the town. He made a public announcement stating that all sick paupers from other towns would be refused entry to Cork. Consequently, the town's gates were guarded by men in an attempt to identify the sick strangers[xxviii].

Moreover, the inhabitants of Drumkeeran, County Leitrim, showed a vehement opposition to the building of a fever hospital. They wrote a petition to the Lord Lieutenant requesting him to move the location of the building to outside the town. They opposed the building of a fever hospital on the grounds that it represented a threat to not only the health of the inhabitants but also the trade of the merchants. The local tradesmen feared that the building of the hospital in the town might deter people from buying their goods[xxix]. Even the local clergy in some localities condemned from the altar the building of fever hospitals. The priest's repeated condemnation of the building of a fever hospital at Fethard, county Cavan, encouraged a group of people to burn all the building. More importantly, there were other cases where people resorted to violence in order to oppose the building of a fever hospital[xxx]. In 1849, a mob in Crossmolina invaded the newly converted courthouse into a fever hospital and violently threw the beds outside. When the hospital was moved to another building, it faced the same level of violence. The hospital operated in the beginning under police protection[xxxi].

Due to the inability of medical knowledge to understand the nature of typhus, there were no accepted methods of curing the disease. Doctors held different theories about the best ways to cure their patients. Some of them used one method while others combined many in a desperate attempt to halt the spreading out of the contagious disease. Despite the failure of the medical knowledge to cure the disease, some scientists even boasted of being able to have a deep understanding of its nature[xxxii]. Among the highly disputed methods of curing typhus was blood-letting. The latter was practised according to many techniques including the use of cupping glasses and blood-sucking worms in order to facilitate the bleeding out of patients. Doctors such as William Geary, John Cheyne and Henry Grattan defended the method of blood letting. Geary used the method of bloodletting by leeches when he contracted typhus in an attempt to show that he trusted the way in which he cured his patients. After attaching leeches to his head for twenty-one days, he recovered from the disease[xxxiii].

However, a general consensus regarding the use of bloodletting did not exist. Many doctors such as William Stocker, Robert Law, Robert Graves highly criticised this method. The latter suggested other methods of curing the patients. Graves, for example, prescribed for his patients meals the recipes of which combined the cooking of meat such as mutton, steak, fowl and red wine. Other medical practitioners believed that the use of cold water would help them cure typhus. The doctors of Cork Street Fever Hospital used a

machine for cooling the blood of patients with cold water. When the adult patients resisted this practice, they were forced to take cold baths. Children and adults were kept in the cold while pouring water on them[xxxiv].

It is worth noting that some doctors linked the outbreak of diseases to mysterious atmospheric factors. They promoted the idea that the diseases were beyond the comprehension of human beings. Among the doctors who supported this hypothesis was Robert Graves. The latter indicated that the "epidemic constitution" was the result of atmospheric changes. Another doctor in King's county claimed that the outbreak of fever was caused by a sudden light that shone over the entire district of Aghamon. Other doctors attributed the outbreak of epidemics to unknown poisons in the air[xxxv].

Moreover, many people held a providentialist interpretation of the situation. The persistence of epidemics and their disastrous impact upon the people were understood as being God's wrath. Many people supported the view that God punished the Irish because of their misdeeds. Due to the fact that providentialism defended the idea that the epidemics represented God's will, people believed that nothing could be done to avert them. According to providentialism, people could escape or minimise the impact of the diseases only through atonement. In an attempt to minimise God's wrath, the presbytery of Edinburgh suggested in 1853 a national fast. The Home Secretary, Lord Palmerston, objected to this suggestion on the ground that atonement could not really provide a radical solution to the situation[xxxvi].

The medical knowledge of the time failed even to make a distinction between contagious and non-contagious diseases:

> We feel ourselves bound to state that the subject is still enveloped in great obscurity. Differences of opinion still exist as to the contagious or non-contagious character of the disease; but the weight of evidence is decidedly in favor of the opinion that contagion has little, if any, influence in its propagation. Individual cases sometimes occur, which would seem to lead distinctly to the conclusion that personal infection did occur, but it must be always remembered that persons in connexion with the sick are equally with all others liable to be affected by the epidemic, and it becomes a matter of impossibility, under such circumstances, to determine in any given case whether the attack has proceeded from contagious or from epidemic influence...[xxxvii].

Despite the tangible progress in the field of medicine in the late nineteenth century, doctors still held erroneous views about the origin of typhus. Dr Alfred Hudson, for example, traced the origin of typhus to fear in a lecture in the Meath Hospital. He also stated that fear created a predisposition to fever in general. Dr Alfred's theory must have ended his life. He died of fever shortly after his lecture in 1872[xxxviii].

In addition to the controversial statements of doctors regarding the best methods of curing the patients, the newspapers published many experiments and suggestions of people who declared finding out remedies. The scientists' ignorance of the nature of the devastating diseases drove people to many speculations. Many people published reports in the newspapers about effective preventives. The journalists, therefore, provided advice

about the ways to face the epidemics. *The Newery Telegraph*, for example, deterred the public from the common use of perfumes as a way of reducing air toxicity. The newspaper even stated that the use of perfumes had a negative impact upon the lungs[xxxix]. Faced with the absence of a rational explanation of the ways diseases were caused, some people even denied their existence. Though cholera caused many deaths in the early 1830s in the town of Sligo, people denied the existence of the disease. The inhabitants of Sligo thought that doctors alarmed the public in order to make money from the people. There were even rumours that a tax had to be imposed on the inhabitants in order to be paid to the medical staff in the town[xl].

An examination of the extent of the disease in Belfast, one of the richest unions in Ireland, shows that fever spread rapidly. Like the rest of the unions, people in Belfast were alarmed by the appearance of the disease. Due to the overcrowding in the workhouse, the Board of Guardians of the union failed to isolate the fever patients from the rest of the inmates. In March 1847, the number of fever patients in the union fever hospital reached 158. It is worth noting that 18 beds in the hospital were occupied by two patients each. The situation in the workhouse led to the outbreak of other diseases such as diarrhoea, measles and smallpox. In an attempt to control the cases of contagion and prevent mortality, the doctor of the workhouse recommended moving the smallpox and dysentery patients to another institution. The Board of Guardians, therefore, made an agreement with the committee of the Belfast General Hospital in order to move all the cases of smallpox and dysentery to the Hospital until the end of the crisis. The Hospital committee required a daily charge of 1 shilling for each patient and 1s6d for each burial[xli].

Despite the efforts of the Board of Guardians to meet the demand for medical relief being placed upon them, they proved to be unable to cope with the situation. Accordingly, they requested a loan from the government in order to build a large Fever Hospital that could accommodate all the patients. Being highly committed to a policy of financial retrenchment, the Poor Law Commissioners opposed the application of Belfast's Board of Guardians. The Commissioners were afraid of creating a precedent for the rest of the unions. They believed that if a loan was given to the "rich" union of Belfast, the unions in the poorest areas would make similar demands[xlii]. The Commissioners' attitude sheds light upon the fact that policy-makers and the major administrators of relief gave priority to the reduction of the cost of all forms of relief to the Irish over the urgent need to help the people[xliii]. The official reluctance to provide a loan for the building of a Fever Hospital, therefore, resulted in a dramatic increase of fever patients. There were even sick paupers being left in the streets without any medical help. One of the newspapers, *News-Letter*, warned the government about the disastrous impact of the lack of accommodation "There were many poor creatures in the back lanes of this town suffering from the dreadful disease, for whom there is no room in the hospitals"[xliv]

In the mid-nineteenth century the medical inspectors and the Boards of Guardians throughout Ireland wrote alarming reports emphasising the degraded status of the people affected by diseases. The medical officer of Loughrea ascribed the dysentery and measles to "the wretched condition" of the paupers. Moreover, the medical officer of Gort

workhouse indicated that the deteriorated health of the newly accepted workhouse inmates chiefly resulted in their death[xlv]. The commissioners of the Board of Health shared with many medical inspectors the view that the unprecedented levels of destitution and deprivation endured by the Irish people contributed to the persistence of dysentery, fever and other diseases "The deaths, therefore, from fever and dysentery may be considered as almost direct indications of the prevalence of destitution outside"[xlvi].

More importantly, the Board of Guardians of the workhouse of Skibbereen made an alarming report about the impact of the disease upon the workhouse inmates. Being highly alarmed by the rapid expansion of diseases, the Board of Guardians decided to withhold the provision of medical relief to the paupers applying for admission in the workhouse:

> The Poor Law Guardians of the Union of Skibbereen having been forced, by the present dangerously thronged state of the workhouse, as well as the perilous state of pestilence and disease, affecting a large number of its inmates, and the unprecedented mortality, to adopt the awful alternative of excluding hundreds of diseased and starving creatures who are daily seeking for admission[xlvii].

The attitude of the Board of Guardians was highly influenced by the fact that the disease not only affected the inmates but also the workhouse staff. In fact, 332 inmates contracted either dysentery or fever and seven members of the workhouse staff were affected by fever[xlviii]. The death of the medical staff occurred in many other unions such as Clifden. Following the death of the medical assistant of the workhouse after contracting typhus from the inmates, the members of the Board of Guardians refused to visit the workhouse[xlix].

Smallpox was one of the deadly diseases which spread rapidly in Ireland during the 1840s. The records of the time mention an increasing level of smallpox cases from the beginning of the century up to the 1840s. The documentation of Cork fever hospital shows that the highest level of cases was recorded in 1849. While the number of smallpox cases had been 28 in 1810, it reached 105 in 1849. These cases fell to less than a half a year later[l]. The correspondence between the medical officers and the Board of Health recorded a total number of 7,319 cases of smallpox patients throughout the country. However, the reports of the medical officers only mention the cases of patients who received medical assistance in the hospitals. These figures, in fact, exclude the number of those who did not receive medical assistance outside the hospitals either because their state of health was not deemed dangerous by the medical staff in the different localities or because they lived far from the hospitals[li]. Accordingly, the number of cases of smallpox in the official reports does not really inform us about the real extent of the disease and the extent of suffering of the Irish people. It only provides us with the number of the dangerous cases of smallpox.

Additionally, the 1840s were marked by the outbreak of cholera in Ireland. The disease spread quickly mainly among the poor throughout the country. The increasing number of patients led to the erection of accommodation even in the form of tents outside the workhouses when the latter failed to host all the applicants for medical relief[lii]. In Belfast, for example, the disease appeared for the first time in the workhouse in 1848. The

dramatic increase of deaths resulted in the quick burial of the corpses of the workhouse inmates without even informing their relatives. The members of the Board of Guardians of Belfast also undertook hasty measures in order to face the quick expansion of the disease. They divided the town into districts and established a dispensary in each one of them. These dispensaries provided medical services day and night. The Guardians also attempted to contain the cholera expansion through the quick identification of the new cases of the disease. They employed new people in the workhouse in order to identify the new cases of cholera in the sleeping wards. The diet of the inmates in the workhouse was also improved. Despite all the measures undertaken by the Board of Guardians to halt the spreading out of cholera, the expansion of the disease was beyond the expectations of the people engaged in the provision of medical relief. Due to the inability of the medical staff to provide help to all the cholera patients, able-bodied inmates in the workhouse acted as nurses and helped the workhouse staff to bury the corpses of the dead patients[liii].

During the fever epidemic, temporary accommodation was erected in the remotest areas where no hospitals existed. The inhabitants of those areas isolated the sick in quarantines. The latter were quickly constructed with mud and stones. Due to the fact that people built them to avoid contagion, they were mainly located at the corners of fields and far from the main activities of the local population. They did not contain adequate housing facilities. In most of the times, there was only straw and furze in the quarantines. More importantly, some families had their own quarantines that they used for their sick relatives. Unlike the public quarantines, people showed a humane treatment of their sick family members at home. The poor families living in a cabin used to gather at one side of the dwelling while the sick member of the family had to sleep at the other side. However, richer families isolated their family members in a separate room whose door was blocked by sods[liv].

How many people died of epidemics in Ireland? The exact number of those who died of epidemics is unknown not only to historians studying this period but also to the contemporary administrators of the Board of Health. An examination of the Board's report on the impact of epidemics between 1846 and 1850 shows that a number of 332,462 patients were admitted to the hospitals during the operation of Fever Acts which extended from July 1847 to August 1850. The commissioners of the Board noted that the rate of mortality among all the patients admitted in the fever hospitals exceeded ten percent[lv]. The commissioners also emphasised the fact that the registration of deaths mainly happened in the hospitals. Undoubtedly, those who died in their homes and on the roadside were not registered in the official documentation[lvi].

Recent research has also shown that the official records of the census of 1841, 1851and 1861 fail to inform us about the exact of number of deaths. One of the major limitations to the accuracy of the records was the way in which data was collected. When heads of families were asked to provide information about the number of deaths in their families during a whole decade, they tend to underestimate the number of deaths during the early years of the decade[lvii].

Though epidemic diseases declined after the 1850s, cholera continued to claim human lives not only in Ireland but also abroad. The outbreak of cholera in the early 1850s killed about 2606 persons in Ireland while the total death toll in all the European countries including Britain reached about a million persons[lviii]. During this period, most of the paupers admitted to the Irish workhouses were sick. This signified that people sought the workhouse relief in order to get medical help. Faced with large numbers of sick paupers applying for indoor relief, the Board of Guardians of Belfast separated the healthy paupers from the sick paupers in the workhouse. Therefore, additional wards were added to the infirmary in order to reduce the cases of contagion and provide better medical assistance to the inmates. The high demand for medical assistance in the workhouses reflected the extent to which these institutions increasingly acquired an important role in Ireland. In 1862, a major reform happened to the operation of the Irish Poor Law since the workhouses were allowed to provide medical services not only to the inmates but also to all the inhabitants of the unions. In 1863, the workhouse of Belfast provided medical relief to 5,002 persons[lix]. The provision of medical services to all the applicants could be regarded as a radical departure form the old methods of providing relief to the paupers under the Irish Poor Law Act of 1838. The latter was initially introduced to provide relief to the deserving paupers exclusively within the confines of the workhouses.

More importantly, the 1870s were marked by the outbreak of a smallpox epidemic throughout Ireland. The disease claimed the lives of 1847 persons in the Dublin area between1871-73. Five years later, smallpox reappeared resulting in the death of 1490 persons[lx]. In addition, tuberculosis continued to claim a significant number of human lives in the 1890s[lxi].

The miasmatic theory of the disease was challenged as late as the end of the nineteenth century. After the outbreak of many epidemics throughout Europe including Ireland, doctors made many experiments and suggested many methods to cure them. The experiments of Louis Pasteur (1822-1895) in France brought about new discoveries that enabled doctors throughout the world to reach a better understanding of diseases. After making many experiments on the fermentation of wine, beer and vinegar, Pasteur concluded that the fermentation process was caused by living organisms. Pasteur's discovery challenged the widely held theory of spontaneous generation of diseases. In fact, he founded the science of microbiology when he developed the germ theory that showed that diseases were spread by bacteria. His discovery was further developed by himself and other eminent biologists throughout Europe such as Robert Koch and John Lister. The efforts of these three men ended the miasmatic theory and most of the organisms of diseases were identified. Accordingly, cholera and other diseases became no longer ambiguous since doctors understood how to tackle them[lxii].

This paper has shown the extent to which the persistence of epidemics throughout most of the nineteenth-century inflicted unprecedented levels of suffering upon the Irish people. Despite the fact that there were many institutions providing medical services, the latter suffered from both the shortage of funds and staff. The inability of the medical knowledge to provide antidotes to the different diseases also worsened the situation. Instead of controlling the expansion of contagious diseases, the different practices adopted by doctors contributed to more cases of contagion. Throughout most of the nineteenth

century, the medical response to the epidemics seemed to depend upon the speculations, the intuitive methods of curing the sick and a providential perception of the situation. The paper has also identified the official policy of financial retrenchment while dealing with the epidemics. The British government's response mainly tried to provide medical relief to meet cases of extreme emergency. The operation of the hospitals and the rest of the medical institutions also showed that the politicians of the time gave priority to the reduction of expenditure upon medical relief over the urgent need to help the sick. Doctors either received low wages or worked gratuitously. Apart from the failure of the medical knowledge to halt epidemics, the shortage of funds must have contributed to the increase of the rate of mortality. Moreover, the paper has revealed that the deadly nature of the epidemics resulted in a widespread opposition to the building of medical institutions. The situation also led to xenophobia, intolerance, and the perception of the sick as outcasts.

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