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INFECTIOUS MEDIA: CHOLERA AND THE CIRCULATION OF TEXTS IN THE FINNISH PRESS, 1860–1920

Sofia Paasikivi, Hannu Salmi , Aleksi Vesanto and Filip Ginter

Cholera was the emblematic disease of the nineteenth-century Europe. This article explores the cultural ramifications of cholera by concentrating on the ways in which public discourse participated in circulating information on the disease. It focuses on the reuse of texts about cholera in the Finnish press from 1860 to 1920. The most difficult cholera epidemics in Finland were the first ones in the 1830s and 1850s, and the number of casualties dropped significantly towards the end of the century. At the same time, however, cholera was discussed more than ever, and there was the rising curve of the references to cholera from the 1860s onwards. In Finland, the public discourse on cholera was also entangled with the rising nationalism towards the end of the nineteenth century.

KEYWORDS Newspapers; media history; Finland; cholera; Finnish history; nineteenth-century periodical press; nineteenth century; digital history

Introduction

In 1849, John Snow published his essay *On the Mode of Communication of Cholera* to discuss how cholera was ‘propagated by human intercourse’.¹ It had become obvious to contemporaries that the rapid spread of the disease had been enabled by the numerous instances of interaction taking place via the new forms of transport and mobility that had transformed the nineteenth century. Snow was interested in the expansion of the disease itself, but there were other ‘modes of communication’ that could well have been discussed under the same heading. Cholera not only spread as a serious illness but also as a cultural infection. People were obviously afraid of the inevitable disaster that seemed to conquer new territories, increasingly demanding more victims.

Fear of cholera was understandable. It is an infectious disease that causes diarrhoea and vomiting and, in severe cases, may result in death in a matter of hours due to dehydration and shock.² The disease is caused by bacteria (*Vibrio cholera*), which are usually spread through water contaminated by faeces. In the Western world, cholera is emblematic as the disease of the nineteenth century, but in many other parts of the world, cholera still claims approximately 120,000 lives every year.³

This article focuses on the media history of cholera in Finland during the nineteenth century. Finland had been part of the Swedish Kingdom until 1809, when it was annexed to the Russian Empire. Finland became independent in 1917. The first cholera epidemic in the country took place in 1831–1832. As with everywhere, it caused much fear, as new

epidemic diseases often do.⁴ The first wave was followed by several others in every decade of the rest of the century.⁵

This article explores the cultural ramifications of cholera by concentrating on the ways in which public discourse participated in circulating information on the disease. We focus especially on the reuse of texts about cholera in the Finnish press from 1860 to 1920. This period has been chosen for several reasons. The volume of the press was very limited before the 1860s: in the year 1860, there were 18 newspapers in the whole country, whereas by 1920 the number had risen to 136 papers. From the perspective of press coverage, this period is particularly interesting, as it was characterised by the rapid expansion of media capacity. Another aspect is that the most difficult cholera epidemics in Finland were the first ones, from the 1830s to the 1850s, and the number of casualties dropped significantly towards the end of the century (Figure 1). This was similar to reports in other European countries.⁶ During the same period, however, cholera was discussed more than ever. Figure 2 shows the rising curve of the references to cholera in the Finnish press 1860–1920. How can this be understood, and what kinds of cultural and social ramifications did cholera have? These figures suggest that while casualties were on the decline, the disease became a powerful cultural infection, as echoed by the rising discussion in the press.

For us, ‘cultural infection’ is not a metaphor but refers to the idea that cultural phenomena can also have the capacity to become infectious, as suggested by Tony D. Sampson in his *Virality: Contagion Theory in the Age of Networks* (2012).⁷ The concept ‘virality’ has become popular in the study of the digital media of the 2000s, but it has

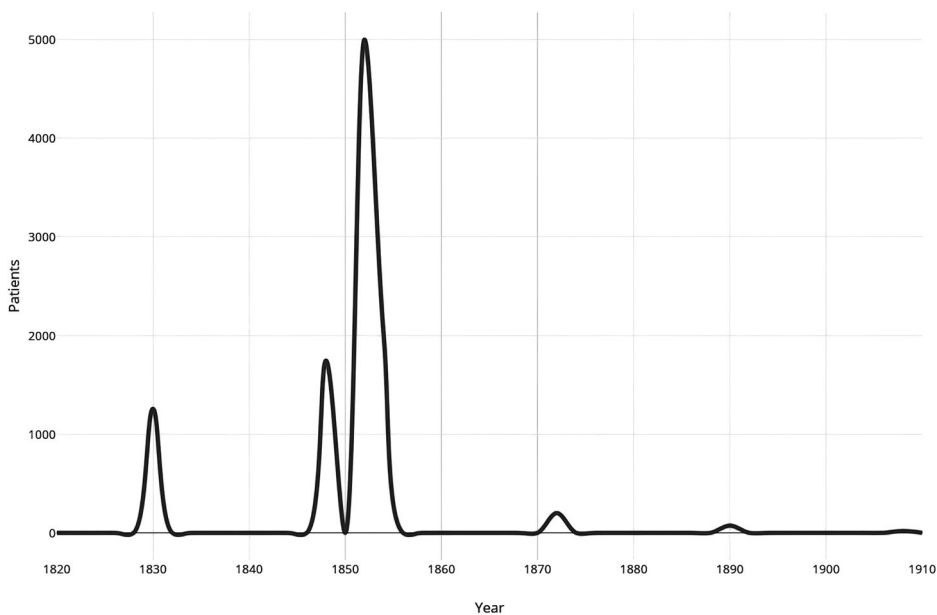


FIGURE 1

The amount of cholera casualties in Finland, 1820–1910. Source: Health Statistics

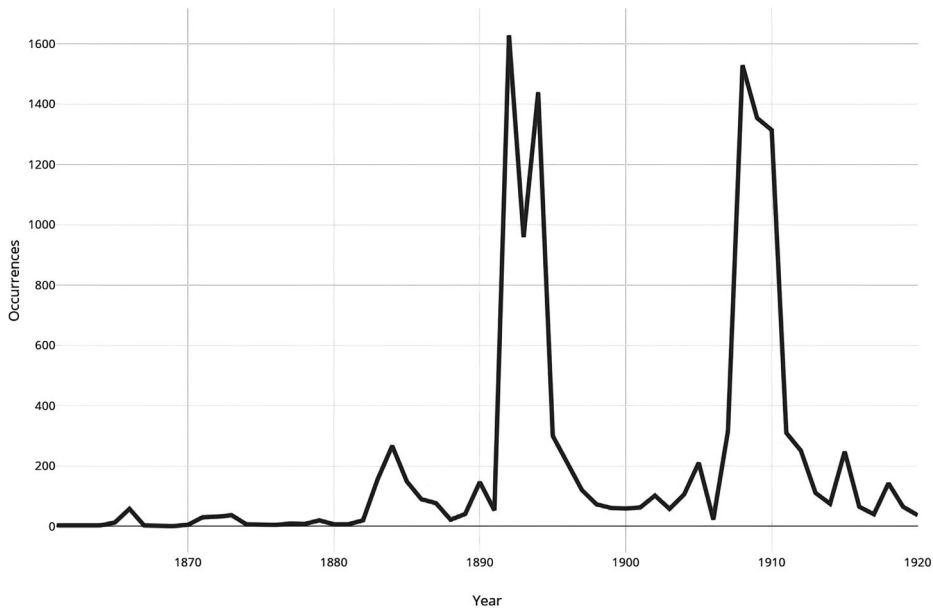


FIGURE 2

Text reuse clusters that mention cholera in the Finnish press, 1860–1920. Source: comhis.fi

also been employed in a nineteenth-century context.⁸ Instead of virality, our article concentrates on its precondition, infectivity that can be analyzed through news circulation. The increasing connections and mobility in the nineteenth century generated unexpected affinities that led to unexpected chain reactions. Cultural phenomena became infectious and spread without any conscious plan or intent.⁹ Also cholera news had infectious qualities, especially in the situation where the volume of the press increased exponentially towards the end of the period. Our argument is that the volume of news circulation effectively amplified cholera as a social phenomenon.

Empirically, this article draws on the research project *Computational History and the Transformation of Public Discourse in Finland* that studied text reuse in the Finnish press and sought to identify texts that had been copied within the corpus of five million pages. Text reuse detection was realised with a BLAST algorithm, which is used in bioinformatics to recognise similarities within biological sequences, such as proteins or DNA chains.¹⁰ In the end, the project found 13.8 million clusters of similarity between 1771 and 1920.¹¹ These clusters are text chains, including the first occurrence of a text and all its reprints. These chains have been released as an open database at <http://comhis.fi/>.¹² From the perspective of cholera, the database allows insight into the role of the press in the formation of the disease as a cultural and social signifier: it includes observations from abroad, preparations for domestic healthcare, speculations on the contagiousness of the disease, and many other aspects. The database includes 34,367 clusters of texts that deal with cholera. As many as 33,753 of these clusters are from 1860–1920, which shows both the huge expansion of the press towards the end of the century and the visibility of cholera

in the public arena. As a point of departure, the study of text reuse is a useful research strategy for exploring how phenomena such as cholera became amplified in public discourse. It is essential to stress that the results of the database are not a selection of newspaper coverage but give a comprehensive view on news circulation since they are based on the computational analysis of all published issues up to 1920.

This article builds on the analysis of text reuse clusters and explores the ways in which the public discourse on cholera transformed. It pays particular attention to those repetition chains that were the most viral, most widely copied within the press. What kinds of common features did these texts have, and what does this tell us about the social dimensions of cholera during the period under exploration? We have divided the article into three thematic strands: the role of medicine and the medical profession in the public discourse; the position of the press itself, including the self-reflection on how the spread of information affects the readers and thus the conditions for cholera to infect; and, lastly, the geography of the disease: how cholera was understood in spatial terms.

In many European countries the history of cholera has been extensively studied¹³, but in Finland it has been only a small chapter in broader studies on the history of medicine. Finland offers an interesting viewpoint for cholera and its media presence. The country was rather remote from the central traffic routes of Europe, but it was hit by the disease several times. The Finnish case is supported by important earlier studies on the history of the disease, such as Christopher Hamlin's *Cholera: The Biography*.¹⁴ Hamlin's book covers the history of cholera in Russia, which gives us fruitful insights into how the disease affected Finland. Russian cholera waves have also been studied in detail by John P. Davis and Roderick E. McGrew.¹⁵ As for Finnish research, the works of the historian Heikki S. Vuorinen have been valuable studies on both cholera in Finland and on the development of the medical paradigm shift in nineteenth-century Europe.¹⁶

Doctors and Medical Science in the Press

Although it is not the deadliest of nineteenth-century diseases, cholera was one of the fastest and most sudden.¹⁷ People who woke up healthy might be dead the same evening. The cholera bacterium was first found by Filippo Pacini in 1854 and later made more widely known by Robert Koch in 1884, but there was little that the doctors of the time could do for their patients.¹⁸ Pacini's discovery was recognised only much later and, despite Koch's findings, the cause of cholera was contested by many until the end of the century.¹⁹ This moved the main focus from treating the disease to preventing it. The text reuse database shows that this was the case in Finland, too. Between 1860–1920, articles about cholera prevention were consistently more numerous than other news items about the disease. Some of these articles came from official sources, such as the National Board of Health, and papers may have been required to publish them immediately. One example is an article from 1866 stating that it had been published at the request of the Board and that the information was based on the recommendations of the Finnish Medical Society.²⁰

These articles tell us about cholera prevention on an official level. The authorities gave instructions to people on how to prevent the disease through local newspapers. Usually, these texts were connected only to some municipal or governmental

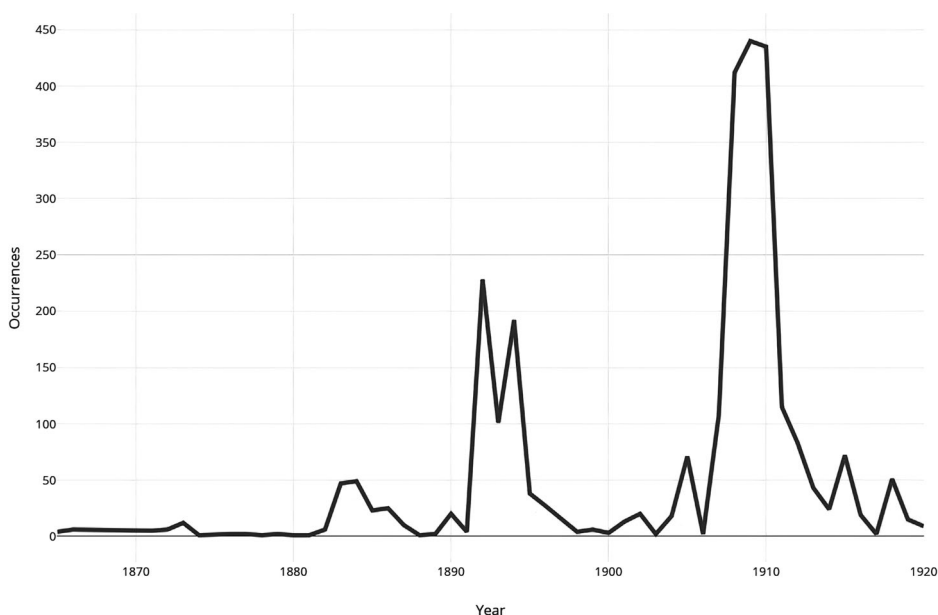
organisation, such as the National Board of Health. One exception was an article written by the governor and senator Georg von Alftan²¹. He had been given a mandate by the senate to instruct the people on how to prevent cholera from spreading. These instructions included things such as what to eat, how to maintain hygiene, and when to contact the doctor.²² They were fairly similar to those of the earlier century, but one thing had changed: they were increasingly given more often by political leaders and bureaucratic offices than by doctors. One reason for this might be that there were only 125 medical doctors in Finland at the time. The number was low compared to those of the neighbouring countries, even though it was possible to become trained as a medical doctor in Finland.²³ Although Finland had fewer doctors in relation to other European countries, it is notable that it was not uncommon for religious and political leaders to take part in handling epidemics.²⁴

The discussion around cholera from the 1830s to the 1850s was often linked to the surgeon and Finnish medical pioneer, Carl Daniel von Haartman.²⁵ However, in later decades of the century, the voice of authority seemed to be in the form of either a politician, such as Georg von Alftan, or even more commonly the National Board of Health, without any single person named as their representative. The treatment and prevention of epidemic diseases had become more organised, on a governmental level, and was moving towards the ideas of public health.

The number of mentions on cholera in our database is shown in [Figure 2](#). As the graph indicates, there were strong peaks of references in the early 1890s and late 1900s but also smaller peaks, for example, in the 1880s. It seems that, during these decades, most text reuse cases consisted of public announcements and official guidelines. These clusters started often from multiple locations at the same time, as the official information was sent to several papers as soon as possible.

[Figure 3](#) shows clusters that had multiple starting locations, which can be seen as indicative of an external source of information. The number of these clusters is clearly higher in the latter peak of cholera texts. Before and around 1910, almost one-third of all clusters had multiple starting locations, which might indicate more efficient public health efforts. Not all the clusters that started on the same day, however, had their origins in bureaucratic offices, as some of them were also summaries or translations of foreign articles.²⁶ In the end, it is difficult to separate cases where authorities consciously used the infectious nature of public discourse in spreading information, and cases where recent cholera news just started to spread via the media network.

The cholera epidemics of the nineteenth century happened at an interesting point in the history of medicine, not only because of the first signs of the emerging concept of public health but also because medical science was in the midst of a paradigm shift. In earlier decades, miasma theory—stating that diseases were spread by foul, miasmatic air—was the prevailing paradigm, although it was often combined with the idea of contagion.²⁷ As a result of the work of scientists, such as Robert Koch, Louis Pasteur and many more, the germ theory of disease started to gain a foothold, and by the last decades of the century it had been widely accepted as the prevailing scientific view. This paradigm shift was a long process, but during the nineteenth century, it picked up enough momentum to replace the miasma theory that had been at the centre of medical thinking since Galen.²⁸

**FIGURE 3**

Text reuse clusters on cholera in the Finnish press, 1860–1920, with multiple starting locations. Source: comhis.fi

The historian Heikki S. Vuorinen noted that the germ theory was mostly accepted in Finland around the 1880s, and even then, some doctors still hung on to the old paradigms, and these theories were often combined to form an understanding that could cover both contagion and miasmatic causes for diseases.²⁹ This happened within a similar time frame as the rest of Europe, according to historian David Barnes.³⁰ Although Finland had only a small number of doctors, many of them were active in their field and closely followed the new research being undertaken in other parts of Europe.³¹ The research at the time was written and discussed in the Finnish Medical Society's own journal, and the discussion on cholera's contagiousness was an active debate, both within the pages of the journal and in the meetings of the society.³²

In the 1860s, when the paradigm shift in medicine was still developing, concepts from miasma theory mixed in with the more modern idea of contagion, as is shown in an article where the National Board of Health advised people that the two biggest threats in regards to cholera were water and air.³³ The article, published in *Borgåbladet* in 1866, states that water was contaminated 'through carelessness and the storage of uncleanness in the vicinity of the well'.³⁴ This can be seen as one example on the varied theories through which people used to explain epidemics, and how sometimes seemingly conflicted ideas were combined together. The same article, which mentions the importance of keeping well water clean, also cites many miasmatic causes for the disease:

[T]he air that closely surrounds us can contain the same kind of impurities and thus lead to the outbreak of cholera. It is therefore important that we prevent the contamination of air with these sorts of vapours.³⁵

According to our database, this article was repeated in five different newspapers within a two-week period in southern parts of the country, in Helsinki and Porvoo.

As pointed out by Vuorinen, even though miasma theory did not usually include the idea of contagion, in practice many doctors also believed cholera was contagious and transmitted through some sort of contact with the diseased, not only by miasmatic air.³⁶ In the course of the century, the role of miasma and bad air decreased, while the new research started to gain a foothold not only in the medical field but also in the press. The newspapers participated in forging an understanding of the disease. Through the circulation of texts, they placed more gravity on recent findings and scientific interpretations of cholera. Although the aforementioned article in *Borgåbladet* still considered air as an important medium for cholera, in 1894, the newspaper *Aura* was the first one to publish an article—‘*On cholera’s nature and how to avoid it*’—explaining the studies by Robert Koch on what bacteria are.³⁷ The article was well based on contemporary research and explained how the bacteria will die in dry environments and do not spread through air but instead through faecal matter.

The medical world was international from early on. In 1851, the first international sanitary conferences were held, which sought to find a common way to contain cholera in Europe.³⁸ These conferences continued through the decades of epidemics, and in 1909 an article was published noting that all cholera and plague cases in Finland should be reported to the highest health authority, according to the Paris international health treaty of 1903.³⁹ It is telling that while these international conferences were usually deemed as ‘sanitary conferences’, according to Hamlin, they focused almost entirely on cholera.⁴⁰ It was the disease most closely linked with filth, and it seems to have had a different status than, for example, typhoid or dysentery. Hamlin also mentions that many countries that participated in these conferences felt that cholera was ‘too important to be left to doctors’. The drivers behind cholera policies were the usual suspects: money and power. It was about trade and colonies, and doctors were there to give technical advice, not to speak broadly about science.⁴¹

It should be noted that just understanding that cholera was spread by contaminated water was not enough. Understanding the cause did not give doctors the cure, nor did it fix the fundamental problems in infrastructure and sanitation. The first water refinery in Finland was established in Helsinki in 1876–1877, and in most places in Finland, communal wells were commonly used until the turn of the century.⁴² Significant advances in sewerage, indoor toilets and water closets become more common in Finland only in the beginning of twentieth century.⁴³ Against this background, it is curious that cholera epidemics subsided to such a degree as reported by the end of the nineteenth century.

Although the discourse about cholera in the late nineteenth and early twentieth centuries had changed from the hands of individual doctors to governmental agencies and politicians, medical practices were still at the heart of the discussion on how to prevent the disease. Treatment was discussed significantly less than prevention; after all, everyone could and should participate in preventing the illness, but once it had struck, the treatment of the patients was to be left in the hands of professionals. Newspapers had an active role in educating their readers about the new scientific findings. The active discussion on the contagiousness of the disease was left out of the newspapers and kept in the professional sphere of doctors; however, the conclusion—cholera was

being spread through contaminated water and by contact with the diseased—was considered important information and something to be shared with the public in detail.

Constructing Fear in the Press

In Finnish newspapers, cholera was represented as Asiatic, Eastern and barbaric. It was a threat of the Orient and of otherness. This can be clearly seen by the use of the old 'Asiatic cholera' name. In part, Asiatic cholera and cholera were considered different diseases. Normal cholera, which was considered 'English' or 'European', was mild in comparison and killed mostly infants and elderly people, whereas Asiatic cholera was a deadly disease that killed even those who were in the prime of their life.⁴⁴ The names cholera and Asiatic cholera morphed together in the early twentieth century, but according to Hamlin, this did not mean that cholera lost the label of being from Asia; it just became its default state, so obvious it could be left unmentioned.⁴⁵

Cholera has been viewed as Asiatic, whether by name, assumed origin, or just connotation, for most of its history. As with many epidemic diseases, colonialisation morphed the way these diseases were seen and who was to blame for them. Hamlin argues that cholera's label as an Asian disease goes back to early nineteenth-century researchers John Macpherson and N. Charles Macnamara, who attributed cholera to India despite having no evidence of cholera epidemics in the area before the arrival of Europeans. They wrote the basis for the European studies on cholera, and later researchers simply used their writings as a source.⁴⁶ While it is still possible that *Vibrio cholerae* did originate from somewhere on the Indian subcontinent, it is also possible that the bacterium had risen from somewhere else altogether.

In the Finnish press, cholera was simultaneously Asiatic and a threat from the Islamic world. Many pandemics were seen to be the fault of pilgrims, especially Hindu or Muslim ones. *Finlands Allmänna Tidning* wrote in 1865 that 'Europe cannot be safe from cholera and other plague diseases, as long as the barbaric pilgrims to Mecca are not abolished or contained to a reasonable amount'.⁴⁷ The news, reprinted several times by other papers, became a cultural infection that participated in spreading the 'barbaric' connotation of the disease.

Otherness was not only racial but also societal. According to Hamlin, otherness in the case of cholera is highly linked to the concept of filth and how uncleanliness was regarded to cause cholera. People living in overpopulated neighbourhoods without proper sanitation were seen as culprits rather than victims of the disease.⁴⁸ The otherness of different social classes in Finland is less visible in the discourse about the spread of the disease and more clearly seen in newspapers commenting on cholera rumours spreading among lower classes. Such rumours seem to have included narratives such as cholera not being an actual disease but a deliberate poisoning.⁴⁹ The *Borgåbladet*, and later four other papers, wrote in September 1866:

It is strange how in all countries, at the first occurrence of cholera epidemics, the uneducated classes invariably turned their suspicions against the wells, which they believed to be poisoned.⁵⁰

The symptoms of the disease resembled those of a food or even arsenic poisoning, which fuelled the rumours. The hypothetical culprits depended on the political situation of the

area. Usually, the blame was set based on class or ethnicity. For example, in Russia, Polish and Jewish minorities were blamed for the epidemics.⁵¹ This was not the case in Finland, however. Finland was under Russian rule, but it had its own institutions and its own press, published in Finnish and Swedish. In all, these rumours were not widely written about. When they were, it was usual to write them off as fanciful stories and lies, which only the uneducated believed.⁵² There was one interesting case where the tension grew into violence. In 1831, when cholera first came to Finland, local policeman Georg Neiglick was burned alive in the village of Salmi. The locals suspected he was poisoning them with cholera medicines. This story was so unusual and shocking that it was republished several times later. On 7 September 1907, *Kajaanin Lehti* published it under the title 'The cruel memory':

The old people told of how the burning occurred. The ferocious crowd tied the victim onto a log and he was pushed into a burning barn. At that time, cholera was raging in the village of Salmi and killed a lot of people. When the policeman shared the medicines he had been given with the people, they thought that he was giving them poison and also blamed him for poisoning the water of their wells. Therefore, for this cruel act, 175 men were subjected to various punishments, some were even sent to Siberia.⁵³

The story soon spread in a viral manner, and many other papers wanted to share it with their readers. Finally, it was copied word by word in 25 newspapers between 7 and 27 September 1907. [Figure 4](#) shows the directions of the news flows. This reuse case reveals that a story that circulated in the press did not originate from the bigger cities of the south; rather, it started from a small town of Kajaani in the northern part of the country and, from there, spread to such centres of the south as Turku and Helsinki.

In the history of cholera in Finland, this infectious story is rare in its violence. The historian Kai Häggman notes that cholera was not the only reason behind the act of violence: Neiglick was also known to collect heavy taxes, and he was disliked by many of the villagers.⁵⁴ It is interesting, however, that the story turned viral in 1907. As shown in [Figures 2](#) and [3](#), the highest visibility of cholera in the press was soon to come, and there were many stories on the disease in the following years. It is likely that the original intention of *Kajaanin Lehti* was only to remind readers of the cruelties of the past, of an incident that belonged to the bygone world. In 1907, there was already knowledge on the causes of cholera. Still, it seems that there was also fascination concerning the horrifying qualities of the disease and fear for what it could do to communities and social relations. The story described fear of cholera in the 1830s, but it became a vehicle of fear itself, strengthening the emotional aura around the disease much later, at the turn of the century.

With the newspapers writing about cholera in Europe, the fear spread faster than the disease itself. This was noted by the press, and one of the news clusters in 1892 emphasised the need to stay calm and not to surrender to the power of fear, 'since fear weakens physical and mental resistance'.⁵⁵ Hamlin notes that in most places people knew in advance that the cholera pandemic was spreading to the area, and he argues that the anticipation of the disease is one of the reasons why cholera was so feared.⁵⁶ This can be seen in the Finnish press all through the nineteenth century, and we argue

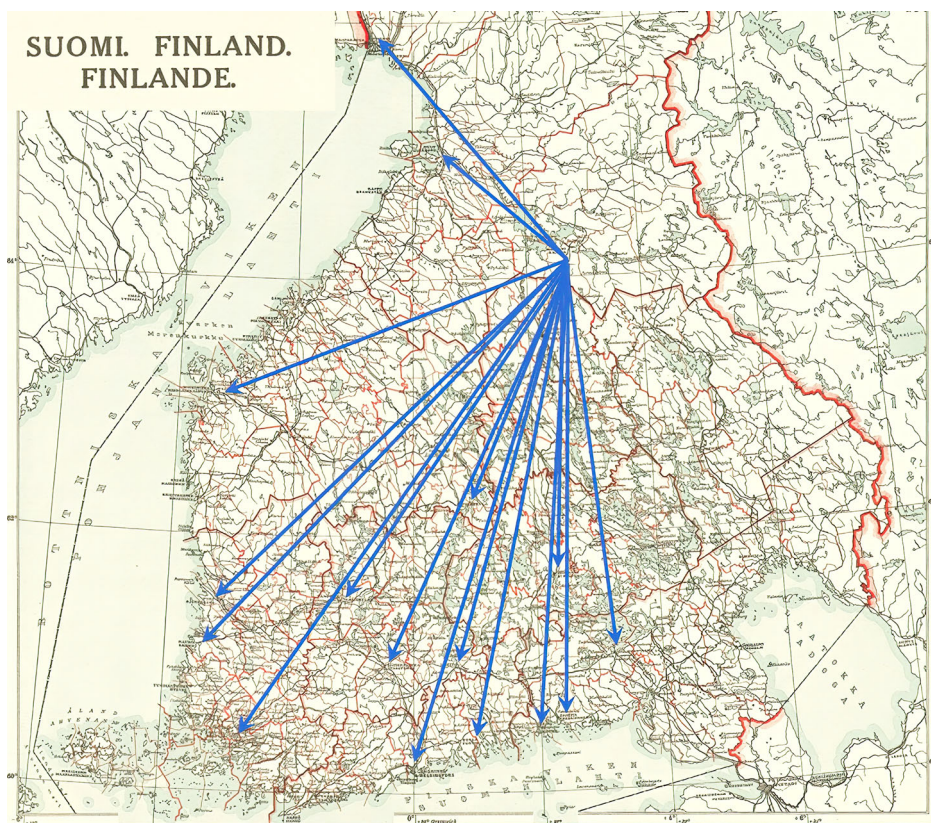


FIGURE 4

The text reuse cluster on the act of violence in the village of Salmi, visualised on the map of Finland, 1916. Starting location: Kajaani, 25 reprints on 7–27 September 1907. Source: comhis.fi. Map: National Library of Finland

that the rise of the press at the time of the cholera epidemics is one key factor in the increasing presence of cholera even when other epidemics started to subside at the end of the century. In addition to the advice on how to prevent the disease, articles about where the pandemic was currently spreading are among the most repeated ones, in every decade.⁵⁷ It is difficult to imagine people reading about cholera spreading through Europe and not being afraid, especially since many papers considered cholera's arrival in Finland as a question of when, not if. For example, in 1910, *Itä-Suomen Sanomat*, published in Lappeenranta, eastern Finland, wrote that 'since several cases of cholera have appeared in St. Petersburg, it will undoubtedly arrive in Finland as well'.⁵⁸

In analysing how viral cholera texts were between 1860 and 1920, we used the virality score of each text reuse cluster. This score is part of the analytical toolbox of our database at comhis.fi. It takes into account the three following factors: the number of unique locations where the news spread, the number of unique titles of newspapers, and the time it took for the text to circulate.⁵⁹ When these parameters are combined, they show how

viral the news was—how efficiently it spread in the newspaper network. The results are presented as a heat map in Figure 5. The most viral news chains are marked by red. The image follows the lines of the previous illustrations on reuse clusters, showing the larger waves of public writing and discussion on cholera, particularly around the year 1910. Further, the heat map confirms that during the high peaks of text reuse on cholera, there were also infectious texts that reached a large audience very quickly and efficiently. The media was having more impact in Finland than ever before.

Newspapers often used language based on fear, and cholera was often compared to a war. In 1894, the newspaper *Aura* wrote that because cholera had ‘raged’ in other parts of Europe, it was likely it would also arrive in Finland during the summer, and people should ‘prepare for battle’.⁶⁰ Cholera was also raging abroad according to *Helsingfors Dagblad*, which wrote in 1865 about cholera spreading through the coast of Egypt. As cholera spread to Europe through Egypt rather than India, it was deemed fickle or tempestuous due to this change of route.⁶¹ In this text, people were also warned not to lull themselves into a false sense of security despite the prediction that the disease might stop by the coast of the Black Sea because cholera had already become ‘normal’.⁶²

Although the tone of some articles might be a bit alarmist and can be seen to feed people’s fears in an already tense situation, some writers clearly felt that there were reasons to stress the importance of the issue. In 1910, *Itä-Suomen Sanomat* published the following warning:

[D]o not out of foolishness or recklessness neglect these orders. Do not use other protection against cholera than those given by a known doctor; and do not believe, that in any way alcohol might protect against cholera.⁶³

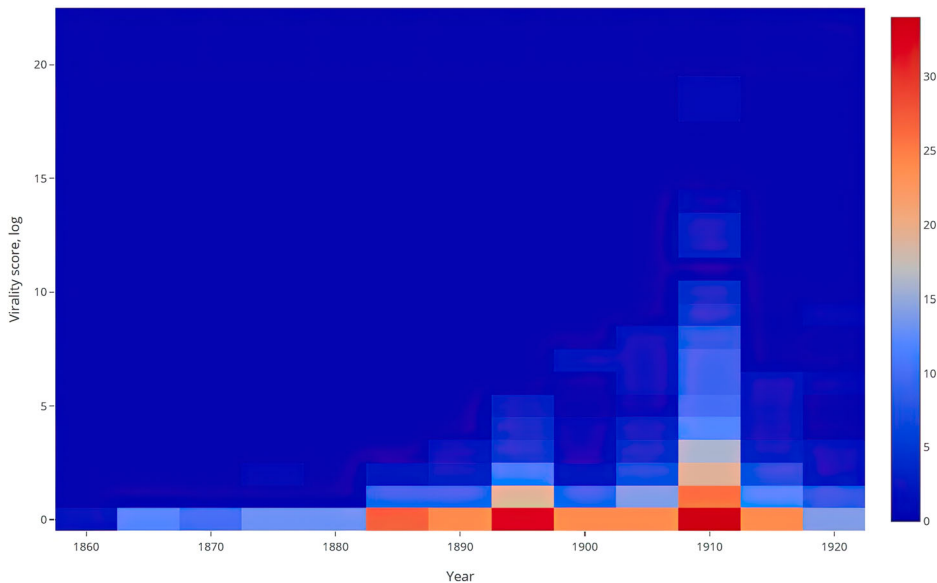


FIGURE 5
Heat map on the virality of cholera news in Finland, 1860–1920. Source: comhis.fi

Clearly, the writer felt that not everyone was taking the threat of cholera seriously enough. Perhaps people felt safer, because in 1910, the epidemics had calmed down from the deadliest ones at the beginning of the nineteenth century. This may have also been because some people simply did not trust doctors: even towards the end of the nineteenth century, folk healers were popular in Finland, and many doctors faced doubts for their methods. A doctor was often only visited after a folk healer had tried and failed to cure the patient.⁶⁴

There were also widely repeated articles about new cures for cholera. These can be interpreted as conveying hope as well as hopelessness. In 1871, *Helsingfors Dagblad* published an article about a new medicine for cholera, which was supposed to cure 'even those who had lost all hope'. This article, based on news from London, was repeated in five different newspapers in four cities over 11 days:

New Drug Against Cholera. Mrs. London writes: Currently, a doctor Hutchinson is getting attention here. He claims to have discovered an infallible drug against cholera and has indeed cured many sick people. His means, as assured, simply consist of placing collodium on the stomach and allowing the sick person to ingest a strong dose of rum or liquor. Within a short period of time, sick people considered hopeless had their hopes restored. In England, this cure has been used in many ways, even when cholera was not at hand, but without collodium.⁶⁵

Although advertisements for cholera medicines were not unusual, as we may deduce from the warning in *Itä-Suomen Sanomat*, this article is not as obvious in selling the cure. It does mention the name of the doctor but also explains the cure—which without collodium (or collodion, its modern name) seems to be simply a strong dose of alcohol. Even the collodion would not have helped any cholera patient; the substance is a mix of pyroxylin, ether, and alcohol, and it creates a thin film on the skin. It was used to keep surgical dressings in place (and later also in photography) and could likely be made by many pharmacists at the time.⁶⁶ This was a new treatment, selling hope instead of product, and endorsing the use of alcohol in cholera treatment, which seems to have been against the official guidelines of the time.⁶⁷

As this chapter has shown, the press actively took part in forming society's ideas about cholera. Newspapers wrote about the looming threat that was coming ever closer to Finland and described cholera with words that had connotations of fear and warfare. Even as the papers also tried to spread awareness of cholera prevention and calm down rumours surrounding the disease, there is no clear line as to whether the discussion was trying to calm people's fears or instead to feed them. It worked on both levels at the same time, and newspaper publicity participated actively in the construction of how cholera was conceived.

Geographic Imagination of Cholera

Newspapers reported regularly on cholera on an international scale. This was obvious right from the beginning of cholera reporting in Finland. At that time, cholera was a disease that was far away, at a considerable geographical distance. On 23 April 1822, *Finland Allmänna Tidning* published news from Constantinople stating that

100,000 people had been killed by cholera in Shiraz and its surrounding area in present-day Iran.⁶⁸ It took only a few years for cholera to spread from Asia to Europe and gradually also nearer to Finland. The epidemics of the 1830s and 1850s were characterised by the consciousness that the disease came closer every day. The press participated in creating anxiety, given that, through the newspapers, people knew what was happening and could foresee a situation when cholera would hit local towns. The situation of Finland can be compared to that of Sweden. Peter Baldwin has pointed out that Sweden was surrounded by water and had a long coastal line. It was therefore manageable to aim at stopping the disease right in the harbour and set all infected into a quarantine.⁶⁹ Finland, however, was on the other side of the Baltic Sea and had a long land border with Russia. This border, of course, was porous since Finland had been annexed to Russia in 1809.

The rapid growth of the Finnish press started in the 1860s and the amount of cholera news increased accordingly, meaning that the views and information delivered by the media could have more impact on people's imaginations regarding the world around them. Quite often, cholera news included cartographic information, not in the form of a map, but by describing the countries and regions that had been hit by the disease and paying attention to its itineraries. On 1 September 1865, both *Helsingfors Dagblad* and *Helsingfors Tidningar* quoted in length the news published by *The Times* in London on 23 August. The translated and reprinted text points out that cholera had now taken unexpected routes: 'We could mark its progress stage by stage, not always in a direct line or without many capricious deviations and jumps, but still generally from the south-east to the north-west. It was heard of in Persia, Asia Minor, and Turkey; then reported from Vienna, from Prague, from Warsaw, from Berlin, and from Northern Germany, till it got to Belgium and Paris'. The news further confirms that this 'is the sketch which would serve generally for the visitations of 1832, 1849, and 1854'. But now cholera was something different. It was 'first reported from Alexandria, where it raged terribly, spreading along the coast to Damietta, and running up the Nile to Cairo. Then we heard of it at Smyrna, in the Isle of Cyprus, at Constantinople, and in the villages of the Bosphorus. Presently, it is reported from Ancona, from Gibraltar and Malta, from Marseilles, from Barcelona, and from Valencia'.⁷⁰

Cholera was mentioned 134 times in the Finnish press in 1865. This may sound like a lot, but in *The Times*, there were 128 references to cholera in August 1865 alone. There was a huge difference in the volume and capacity of newspaper publishing in England and Finland. It is illuminating however that in 1883, there were already 1,925 references to cholera and in 1892, as many as 4,796. The highest peak in cholera reporting came in 1909, with 8,231 references. Despite these figures, the geographically detailed information was characteristic of the news throughout the period. It was important to report areas that had been hit by the disease. Following these gradual changes most probably left a deep impact on the readers of the papers in Europe, irrespective of the volume of the press. The readers could take a printed map in front of them and see where the places mentioned in the newspaper really were. The news of *The Times*, and its Finnish echoes, was insinuating that the lessons of history were of no use in estimating what might be the routes of cholera in the future. By these means, the news not only seeded fear among its readers but also constructed a geographical imagination around cholera. If contemporaries in 1865 were

alert to any changes, or 'capricious deviations and jumps', in the itineraries of cholera, it is also possible to explore how the geographical representation of the disease changed over time. For this analysis, the Finnish press has offered a way to explore how cholera was conceived in spatial terms.

As the news from 1865 reveals that the whole map of the world was associated with the spread of the disease, but there was also domestic news reported and reprinted. This included, for example, the conditions at the city of Vyborg, which was in the Karelian Isthmus, near the city of St. Petersburg. Vyborg was under particular attention since if there were signs of the disease, it meant that cholera was approaching Finland from the east.

In 1865, the world map of cholera was presented as a Mediterranean and North African realm, and the particular news, quoted above and translated from *The Times*, became the most viral cholera news in Finland during the 1860s. In the 1870s, the news cluster with the highest virality score dealt with the New World and told how cholera had travelled to New York via an ocean liner.⁷¹ In the 1880s, the most popular news dealt with a domestic issue, reporting on the measures that had been taken in Finland to prevent the disease.⁷² The second most viral news was an article on the health situation in Toulon. The text had originally been published by *Le Temps* in Paris on 25 June 1884, and then was reported, for example, by *Waasan Lehti* in Finland three days later. According to the news, 14 people had already fallen ill in Toulon. All this was presented with the hope that it would never develop into a hostile pandemic.⁷³

The next two decades, the 1890s and 1900s, were the most active cholera periods from the perspective of infectious news. After going through the 10 most viral news clusters from both decades, it seems obvious that Eastern European place names were emphasised much more than previously. The spatial imagination of cholera had a strong eastern, and especially, Russian, bent. As Charlotte E. Henze has pointed out, in terms of cholera casualties, 'Russia was the most frequently and most violently stricken country in Europe'.⁷⁴ Russia had been cholera's gateway to Europe, and it continued to be a severe threat up to the 1910s. In Finland, there was clearly a reason for being afraid of new cholera waves. Finland was part of the Russian Empire, and there were continuous cross-border flows. But there were also other aspects, especially towards the turn of the century. The 1890s is known as the period when the Russian regime strengthened its political hold. In Finnish historiography, this era has often been described as a period of Russification and political oppression. To be sure, the 1890s saw the rise of Finnish nationalism and political activism that only deepened in the following decades.⁷⁵ This was a favourable climate to stress the 'easterness' of cholera and interpret the disease through a larger framework of hostility from the East.

The newspapers regularly published detailed information on how cholera was spreading, especially in Russia and other parts of Eastern Europe. Figure 6 shows the 'Cholera Bulletin' that was published by *Hufvudstadsbladet* on 27 September 1894. It listed the number of people who had fallen ill ('insjuknat') or died ('aflidit'). These bulletins really concretised the threat for the readers, and between the lines, made clear that the threat was coming from the east. The news on cholera informed the public, for example, that all cloth material coming from Russia had to be disinfected⁷⁶ and that letters, packages and other posts coming from Moscow or areas south of Moscow had to be disinfected in Helsinki before delivering them further.⁷⁷ The most hectic cholera

— Kolerabulletin. Enligt till Medicinaldepartementet af Inrikesministerium till den 10 sept. g. st. ingångna meddelanden har följande antal fall af kolera eller koleraliknande sjukdom förekommit:		
	Inskränt	Afflit
S:t Petersburg fr. 3 sept. till 9 sept.	51	29
Warschau fr. 21 aug. till 3 sept.	15	9
göv. Warschau fr. 21 aug. till 3 sept.	151	88
göv. Kalisch fr. 21 aug. till 27 aug.	37	24
göv. Kielce fr. 21 aug. till 27 aug.	426	255
göv. Lomsch fr. 28 aug. till 3 sept.	16	11
göv. Piotrkov fr. 28 aug. till 3 sept.	305	83
göv. Plotzk fr. 28 aug. till 3 sept.	40	31
göv. Radom fr. 21 aug. till 27 aug.	182	107
göv. Siedlce fr. 28. aug till 3 sept.	122	43
göv. Kurland fr. 21 aug. till 27 aug.	21	11
göv. Liffand fr. 21 aug. till 27 aug.	93	41
göv. Archangel fr. 28 aug. till 3 sept.	9	4
göv. Astrahan fr. 21 aug. till 27 aug.	41	39
göv. Witebsk fr. 28 aug. till 3 sept.	34	18
göv. Wolhynien fr. 21 aug. till 27 aug.	59	15
göv. Grodno fr. 21 aug. till 27 aug.	181	80
göv. Kiev fr. 31 aug. till 27 aug.	2	1
göv. Kovno fr. 28 aug. till 3 sept.	10	8
göv. Minsk fr. 28 aug. till 3 sept.	108	44
göv. Podolien fr. 28 aug. till 3 sept.	390	166
göv. Bessarabien fr. 28 aug. till 3 sept.	310	113
göv. Wladimir fr. 28 aug. till 3 sept.	10	7
göv. Wologda fr. 21 aug. till 27 aug.	8	4
göv. Wjatka fr. 21 aug. till 27 aug.	10	10
göv. Jekaterinoslav från 28 aug. till 3 sept.	20	4
göv. Kasan fr. 21 aug. till 27 aug.	37	25
göv. Kaluga fr. 28 aug. till 3 sept.	13	8
göv. Kostroma fr. 28 aug. till 3 sept.	27	32
göv. Kursk fr. 21 aug. till 27 aug.	2	—
göv. Nischnij Nowgorod fr. 28 aug. till 3 sept.	102	52
göv. Novgorod fr. 28 aug. till 3 sept.	43	24
göv. Olonetz fr. 28 aug. till 3 sept.	48	25
göv. Perm fr. 21 aug. till 27 aug.	26	12
göv. Pensa fr. 14 aug till 21 aug.	1	1
göv. Pskov fr. 28 aug. till 3 sept.	7	5
göv. Rjasan fr. 21 aug. till 27 aug.	100	55
göv. Samara fr 28 aug. till 3 sept.	32	11
göv. S:t P:burg fr. 21 aug. till 3 sept.	245	96
göv. Saratov fr. 21 aug. till 3 sept.	102	47
göv. Simbirsk fr. 28 aug. till 3 sept.	3	1
göv. Tambov fr. 21 aug. till 3 sept.	24	13
göv. Tula fr. 28 aug. till 3 sept.	3	3
göv. Cherson fr. 21 aug. till 3 sept.	48	28
göv. Jaroslav fr. 28 aug. till 3 sept.	109	49
göv. Donska härens område fr. 28 aug.	1	1
göv. Baku fr. 21 aug. till 27 aug.	1	—

FIGURE 6

'The Cholera Bulletin', published by Hufvudstadsbladet in Helsinki on 27 September 1894. Source: National Library of Finland

'fever' was just before the 1910s but also the very year of 1910. The most viral text was the announcement by the National Board of Health advising people to wash all fruits and vegetables that came from the east.⁷⁸

It is obvious, of course, that all these precautions were grounded in the prevailing situation in the fight against the spread of the disease into Finland. However, the vocabulary that was employed in these texts stressed the idea of contamination that was, in the end, also in the service of the rising nationalistic tendencies in the country. Concurrently, the geographical imagination of cholera became increasingly more biased, as can be seen by comparing the image of the 1860s to the viral news of the 1910s. As already indicated in [Figures 2 and 3](#), the volume of cholera publishing was at its highest around the year 1910. At that time, the 'easterness' of cholera acquired particular gravity in and through the media.

Conclusion

Finnish newspapers, as we have shown, offer unique insight into the discussion on cholera. Since all issues up to 1920 have been digitised, they give us a broad view on the history of public discourse and also enable the study of how texts on cholera were circulated. We concentrated particularly on the period from 1860 to 1920, when newspaper publishing in Finland grew explosively; the discussion on cholera multiplied, but at the same time, the number of casualties dropped significantly.

The spread of the disease was followed keenly by the press throughout all decades. This is also a reason for the huge amount of cholera news; the newspapers wrote about cholera even when there was no current epidemic in Finland. The progression of the disease was a substantial part of the conversation about cholera as well as the construction of fear that surrounded the disease. The way in which these articles were written is also significant, and the language used in these texts tells us how cholera was seen and how it caused both alarmist and calming responses from the officials. Through comments about rumours concerning cholera, it is also possible to analyze how lay people may have seen the disease and how they were influenced by its fear.

The news on cholera was often repeated in different papers around the country, giving it a great deal of coverage. Cholera became infectious news, especially towards the end of the nineteenth century. The present article has concentrated on text reuse as a strategy to explore how specific themes saturated the publicity on the disease. Newspapers played a crucial role in sharing official information and guidelines for the public and, thus, in the long run, helped to fight against the disease. The newspaper network and its capacity to spread information rapidly were consciously exploited by the authorities. However, this network had an infective quality that was beyond control, and texts were copied from one paper to another in unexpected ways. The reputation of cholera as a disease to be feared was firmly established in the public arena. No wonder cholera had a frightening echo in the twentieth century—and still does today—despite the fact that in regions such as Finland, cholera was no longer as lethal as it had once been.

The public discourse on cholera in Finland was entangled with the rising nationalism towards the end of the nineteenth century, as discussed in the last section of the article. The dangerous disease was regarded particularly as a threat from Russia that had to be avoided. Throughout its history, cholera—as so many other serious diseases—have given birth to an array of social ramifications, including views on nations and geographical regions. Since the nineteenth century, it has also been obvious that the media

participate strongly in the construction of a disease and in estimating its consequences. In this sense, everyone who is touched by the heavy news flows on a pandemic is also its victim.

Notes

1. Snow, *On the Mode of Communication of Cholera*, 5.
2. Harris et al., "Cholera", 2469.
3. *Ibid.*, 2466.
4. On the emotional response to cholera, see Baldwin, *Contagion and the State in Europe, 1830–1930*, 63–65; Briese, *Angst in den Zeiten der Cholera*, 55; Davis, *Russia in the Time of Cholera*, 35–47; Rosenberg, *The Cholera Years*, 55–74.
5. For further details, see Paasikivi, 'Waikioita Waiwoja Watasta', 6.
6. Hamlin, *Cholera: The Biography*, 97–8.
7. Sampson, *Virality: Contagion Theory in the Age of Networks*.
8. For example, Ryan Cordell and David A. Smith's Viral Texts project at Northeastern University, Boston, <https://viraltexts.org/> (accessed on 18 January 2021). See also the chapter "Virality", in Salmi, *What is Digital History?*, 22–5.
9. Cf. examples from early nineteenth-century Finland, see Salmi et al., "Embryonic Modernity", 107–110.
10. On the method, see Vesanto et al. "Applying BLAST to Text Reuse Detection in Finnish Newspapers and Journals, 1771–1910", 54–8. On the method and its application, see also Salmi et al., "The Reuse of Texts in Finnish Newspapers and Journals, 1771–1920", 14–28.
11. The first Finnish newspaper, *Tidningar Utgifne af et Sällskap i Åbo*, was published in 1771. Its last year was 1920, the papers of which have been opened to researchers for data mining. On the results of text reuse analysis, see Rantala et al., "Tekstien uudelleenkäyttö suomalaisessa sanoma- ja aikakauslehdistöissä 1771–1920 – Digitaalisten ihmistieteiden näkökulma", 53–67; Salmi et al., "Återanvändningen av text i den finska tidningspressen 1771–1853", 46–76; Salmi et al., "The Long-Term Reuse of Text in the Finnish Press, 1771–1920", 394–404; Salmi et al., "The Reuse of Texts in Finnish Newspapers and Journals, 1771–1920", 14–28.
12. Vesanto et al, *Text Reuse in Finnish Newspapers and Journals, 1771–1920*, <http://comhis.fi/clusters>. Initially the database included the years 1771–1910, but in spring 2018 the years 1911–1920 were also processed. Now the database covers all published newspapers and journals up to 1920.
13. See, for example, Briese, *Angst in den Zeiten der Cholera*; Davis, *Russia in the Time of Cholera*; Kudlick, *Cholera in Post-Revolutionary Paris*; Ross III, *Contagion in Prussia, 1831*; Snowden, *Naples in the Time of Cholera, 1884–1911*.
14. Hamlin, *Cholera: The Biography*.
15. Davis, *Russia in the Time of Cholera*; McGrew, *Russia and the Cholera, 1823–1832*.
16. Vuorinen, *Tautinen Suomi 1857–1865*; Vuorinen, *Tautinen historia*.
17. Pneumonia, dysentery and typhoid fever killed more people in Finland during the nineteenth century but did not induce as big of a media reaction as cholera. Vuorinen, *Tautinen Suomi 1857–1865*, 43–4.

18. Fluid replacement therapy by saline injections was first experimented with cholera patients by Thomas Latta in 1832, but the method became established in medicine only after the turn of the century. See Hamlin, *Cholera: The Biography*, 144–5.
19. Bentivoglio and Pacini, "Filippo Pacini: A determined observer", 165; Hamlin, *Cholera: The Biography*, 9–10.
20. *Borgåbladet* 1 September 1866.
21. Myllyniemi, "Alfthan, Georg von (1828–1896)".
22. *Oulun Wiikko-Sanomia* 8 September 1866.
23. Saarivirta, Consoli and Dhondt, "Suomen terveydenhuoltojärjestelmän ja sairaaloiden kehittyminen", 25–9.
24. See, for example, Hamlin, *Cholera: The Biography*, 97–112 and Kallioinen, *Rutto ja rukous*, 205–23.
25. Savolainen, "Haartman, Carl Daniel von (1792–1877)". See also Tiitta, *Collegium Medicum*.
26. See, for example, *Helsingfors Dagblad* 1 September 1865 and 19 July 1871.
27. Vuorinen, *Tautinen historia*, 51–3.
28. See, for example, Barnes, *The Great Stink of Paris* and Spary, 'Health and Medicine in the Enlightenment', 82–99.
29. Vuorinen, *Tautinen historia*, 53.
30. Barnes, *The Great Stink of Paris*, 45–6.
31. Paasikivi, 'Waikioita Waiwoja Watasta', 22–3.
32. Paasikivi, 'Waikioita Waiwoja Watasta', 15.
33. *Borgåbladet* 1 September 1866.
34. *Ibid.*
35. *Ibid.*
36. Vuorinen, *Tautinen Suomi 1857–1865*, 52.
37. *Aura* 17 July 1894.
38. Hamlin, *Cholera: The Biography*, 80.
39. *Karjalatar* 18 December 1909.
40. Hamlin, *Cholera: The Biography*, 81.
41. *Ibid.*, 81–2.
42. Herranen, *Vettä ja elämää*, 10–12.
43. Saarikangas, *Asunnon muodonmuutoksia*, 100–101.
44. Vinten-Johanssen et al., *Cholera, Chloroform, and the Science of Medicine*, 168–9.
45. Hamlin, *Cholera: The Biography*, 14–5.
46. *Ibid.*, 28–32; Macnamara, *A History of Asiatic Cholera*, 42–77; Macpherson, *Annals of Cholera*, 7–11; Scoutetten, *A Medical and Topographical History of the Cholera Morbus*, 45; Hawkins, *History of the Epidemic Cholera of Russia*, 127 and Hamlin, "The Cholera Stigma and the Challenge of Interdisciplinary Epistemology: From Bengal to Haiti", 445–74.
47. *Finlands Allmänna Tidning* 9 September 1865. On the role of pilgrims, see Echenberg, *Africa in the Time of Cholera*, 21.
48. Hamlin, *Cholera: The Biography*, 50–1 and 79.
49. See, for example, *Borgåbladet* 1 September 1866 and *Uusimaa* 23 September 1907.
50. *Borgåbladet* 1 September 1866.
51. Davis, *Russia in the Time of Cholera*, 92; Hamlin, *Cholera: The Biography*, 51. See also Ross III, *Contagion in Prussia, 1831*, 145.

52. See, for example, *Sanomia Turusta* 17 January 1854, *Borgåbladet* 1 September 1866, and *Keski-Suomi* 9 August 1894.
53. *Uusimaa* 23 September 1907.
54. Häggman, "Kivennäisvesi, kylpyvesi ja keskisäädyn elämäntapa", 153–67.
55. "Hiukan kolerasta", *Uusi Suometar* 7 July 1892. See also *Rauman Lehti* 27 July 1892, *Finland* 11 August 1892, *Turun Lehti* 18 August 1892.
56. Hamlin, *Cholera: The Biography*, 10–11.
57. See, for example, *Borgåbladet* 30 June 1866, *Morgonbladet* 11 September 1873, *Wiborgsbladet* 28 September 1892, and *Itä-Suomen Sanomat* 6 August 1910.
58. *Itä-Suomen Sanomat* 6 August 1910.
59. On virality score, see Salmi et al., "The Reuse of Texts in Finnish Newspapers and Journals, 1771–1920", 14–28.
60. *Aura* 17 July 1894.
61. *Helsingfors Dagblad* 1 September 1865. Cholera spread through pilgrimage, but also the construction of the Suez Canal, opened in 1869, was a serious threat. For further details, see Baldwin, *Contagion and the State in Europe 1830–1930*, 140.
62. *Helsingfors Dagblad* 1 September 1865.
63. *Itä-Suomen Sanomat* 6 August 1910.
64. Lehtonen, "Bakteerit ja henkisten ruttotautien siemenet", 205–52.
65. *Helsingfors Dagblad* 19 July 1871.
66. Maynard, "Discovery and application of the new liquid adhesive plaster", 178–83, and "Colloidium", *Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health*.
67. See, for example, *Itä-Suomen Sanomat* 6 August 1910. On different treatments, see also Snowden, *Naples in the Time of Cholera, 1884–1911*, 122–33.
68. *Finlands Allmänna Tidning* 23 April 1822.
69. Baldwin, *Contagion and the State in Europe 1830–1930*, 222–23.
70. *The Times* 23 August 1865. The sentences are translated directly into *Helsingfors Dagblad* and *Helsingfors Tidningar* 1 September 1865.
71. See, for example, *Åbo Underrättelser* 18 December 1871.
72. *Fredrikshamns Tidning* 18 July 1885.
73. *Waasan Lehti* 28 June 1884.
74. Henze, *Disease, Health Care and Government in Late Imperial Russia*, 11.
75. Meinander, *A History of Finland*, 160–8.
76. *Uudenkaupungin Sanomat* 29 July 1892.
77. *Rauman Lehti* 23 July 1892.
78. *Rajavahti* 4 August 1910. On the 1910 cholera epidemic in Russia, see Davis, *Russia in the Time of Cholera*, 118–21; Henze, *Disease, Health Care and Government in Late Imperial Russia*, 122–52.

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