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Discrepancies in Municipal Governance During the Spanish Influenza 1918-1920

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**Discrepancies in Municipal Governance During the Spanish Influenza
1918-1920**

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1. Introduction

In 1918 rumours started to circulate in the newspapers about an unknown virus that was causing disruption in Spain. The virus was nicknamed the Spanish Influenza. Having been nicknamed the Spanish Influenza, the name did not refer to the country of origin of the virus. It was from war-neutral Spain that the first reports appeared about a mysterious virus.¹ During the First World War Spain did not censor its news because of its neutrality. Four years of war had caused disruption throughout all layers of society in Europe. Even in the neutral Netherlands the consequences of war were palpable because of food rationing, shortages of fuel and many more resources. The outbreak of the war led to the mobilisation of two hundred thousand men in the Netherlands, albeit they remained neutral. Mobilising all these men caused shortages in the labour force. The mobilisation combined with export embargoes from Germany and Great Britain meant omnipresent hardship during these four years.² The Dutch government tried to step in to prevent a complete disruption of everyday life. Food stamps were introduced to regulate society, but the amounts of food dropped as the war lingered on. In response, the Central Kitchens were opened where people could buy a hot meal for a small amount of money.³ One can only imagine the miserable conditions in the Netherlands in 1918 due to all the shortages. Before the hardship came to an end a new crisis occurred that extended the suffering for the Dutch inhabitants. In this thesis the government's response to that crisis, the Spanish Influenza, will be scrutinised.

1.1 Historiography

One in three people that lived on the planet between 1918 and 1920 got infected with the Spanish Influenza. In absolute numbers that amounted to five hundred million people.⁴ Considering this number, the morbidity rate of this flu was incredibly high. The mortality rate posed a more complex question for historians with the data at hand. Many scholars have presented different numbers on the mortality around the globe. Their results varied between 21.5 million, suggested by bacteriologist Edwin Oakes Jordan, or the American demographer Gerald Pyle's estimation of 39.3 million. The British science journalist Laura Spinney, however, estimated a number between fifty and one hundred million casualties.⁵ Although their

¹ R. Vugs, *In veel Huizen Wordt Gerouwd: De Spaanse Griep in Nederland* (Soesterberg 2002), 16.

² Vugs, *In veel Huizen Wordt Gerouwd*, 36-7.

³ Vugs, *In veel Huizen Wordt Gerouwd*, 38.

⁴ L. Spinney, *De Spaanse Griep: Hoe de Pandemie van 1918 de Wereld Veranderde*, vert. Leistra, A. (Amsterdam-Antwerpen 2018), 16.

⁵ N.P.A.S. Johnson, J. Mueller, 'Updating the Accounts: Global Mortality of the 1918-1920 "Spanish" Influenza Pandemic', *Bulletin of the History of Medicine*, 76:1 (2002) 108.

numbers varied, these amounts of casualties must have presented a major disruption of life across the globe. Spinney made this disruption more palpable by describing the influence of the pandemic on a global scale. She criticised existing research and literature for being focused too much on Europe and North America.⁶ Besides Spinney, Niall Johnson and Juergen Mueller also broadened the scope of the pandemic. In their research they updated on the Influenza mortality during the years 1918 and 1920 on a global scale and tried to overcome the problem of lacking data. Their results showed higher mortality than was presented before. Since Johnson and Mueller recalculated the mortality for all continents and not just Europe and North America, where the mortality was the lowest, the numbers were higher.⁷ Johnson and Mueller contested the earlier findings by historian David Patterson and Gerald Pyle on the geography and the mortality of the 1918 Influenza pandemic. Patterson and Pyle described the geographical diffusion of the pandemic and the mortality rates of the entire globe but presented lower mortality than Johnson and Mueller.⁸ Whatever the exact number of casualties was, all studies implicated the major impact this single virus had on a global scale. Due to these studies the Spanish Influenza has become more than a footnote in the history books as it was previously posed by British historian Terrence Ranger. Because of a growing interest at the end of the twentieth century for the subject the Spanish Influenza has taken a prominent position in the global history of the twentieth century.⁹ On a global scale many studies have been done, but regional studies are few.

This study takes on a regional scale by looking at different regions within the Netherlands during the Spanish Influenza. The amount of case studies on the Spanish Influenza in the Netherlands are few. The Dutch scholar and journalist Reinold Vugs presented a research, eighty years after the virus sprouted, on the presence of the Spanish Influenza in Netherlands and the effects it had. He focused both on the rural areas as on the urban regions of the country.¹⁰ Much of the book presented the course of the Influenza and the disruption within households by narrating the stories of first-person witnesses and other oral history. It has a focus on the eastern provinces of the Netherlands that were affected more than the western provinces. His narrative focused on small villages and individual stories in those villages in the eastern provinces where the Spanish Influenza was omnipresent. Besides this he contributed part of his

⁶ Spinney, *De Spaanse Griep*, 19-20.

⁷ Johnson e.a., 'Updating the Accounts', 105.

⁸ K.D. Patterson, G. F. Pyle, 'The Geography and Mortality of the 1918 Influenza Pandemic', *Bulletin of the History of Medicine*, 65:1 (1991) 6.

⁹ Spinney, *De Spaanse Griep*, 22; Johnson e.a., 'Updating the Accounts', 106.

¹⁰ Vugs, *In Veel Huizen Wordt Gerouwd*, 7.

research to the three big cities at the time, Amsterdam, Rotterdam and The Hague. In his research, however, Vugs mainly focused on the path the virus had through the cities and villages. On the subject of governance and decisions made against the epidemic, he wrote that the Dutch State took almost no action because they were occupied with other pressing political matters at the time. So, parts of the book were contributed to the political situations at that time and why the government took on a passive role in the battle against the Influenza, but little was written on the governance on a local level in the Netherlands in his book. This is where this particular research wants to fill in the gaps. Before that is done, first other research from a contemporary author is important for the historiographical narrative.

A.A.J. Quanjer researched the flu in the Netherlands in 1921. He was a contemporary of the Spanish flu and a year after the Spanish Influenza disappeared from the Netherlands Quanjer published *De Griep in Nederland in 1918 tot 1920*. The writing of the book was commissioned by the Central Health Council. It contained a detailed description of numerous aspects of the Spanish Influenza. Since the book was written and published after the Influenza epidemic had passed, it gave Quanjer the opportunity to make up the damage report of the past two years and to put together how the sickness was experienced during those two years. Quanjer described in much detail how the flu entered the Netherlands and what the impact was in terms of mortality, morbidity, and geographical diffusion across the country. Furthermore, he summarised expert opinions of physicians on the possible pathogen of the disease and the course of the disease.

Both Vugs and Quanjer described the pathway of the Spanish Influenza through the Netherlands extensively. But throughout their books some topics and in particular the governance by the Dutch authorities during the Spanish Influenza remained under-researched. That is why this thesis' focus is on governance. Vugs explained the inaction of the Dutch government by mentioning the revolution of Troelstra, which kept the government too occupied.¹¹ Quanjer never discussed the actions by the government. Although the central Dutch government may have been occupied by Troelstra and his revolution, the question arose how local and provincial governments reacted to the outbreak of the Spanish Influenza. Politicians in The Hague were preventing the revolution, but local authorities may have been more occupied with the epidemic. Therefore, the question arose to what extent governance relating to the Spanish Influenza in municipalities across the Netherlands differed on a local level as observed in Dutch newspapers during the Spanish Influenza. Why local authorities were interesting in this regard was explained by Paul van Trigt in the volume by Roel Pots and Nico

¹¹ Vugs, *In Veel Huizen Wordt Gerouwd*, 64.

Randeraad where van Trigt contributed a chapter on the care in the province of Zuid-Holland. He researched the role of the provincial government in Zuid-Holland as an intermediary between the national state and the local authorities regarding health care. It described the responsibilities of the province concerning the public health, poor relief, and the mental health of its subjects.¹² In 1860 Thorbecke introduced new laws on health care which placed the responsibility for the public health on municipal councils. The role for the national and provincial government was limited and this remained the case until after the Second World War.¹³ The municipal governments became responsible for the public health from that moment on. Therefore, this research will scrutinise the role of the municipalities in the Netherlands regarding health care during the Spanish Influenza pandemic.

1.2 Theoretical framework

Little was written on the governance on a local level in the Netherlands during the Spanish Influenza. Governance in this respect should be seen as the way in which the Dutch state has interacted with its citizens through laws, social norms and power. The idea of governance should be seen as the way in which the Dutch State deployed its power to serve the interests of its inhabitants and to protect them, as Veldheer explained.¹⁴ The focus in this thesis is on the municipalities and thus governance should be understood as the way in which municipalities made decisions that affected their inhabitants. These decisions were an expression of power by the local authorities for the benefit of the inhabitants. Their governance decisions were binding, and they imposed rules upon the subjects of the municipalities. In short, governance must be seen as the way the municipality acted within their power to decide on the matter of the Spanish Influenza.

1.3 Research questions

The main question throughout the research is: to what extent did governance relating to the Spanish Influenza in municipalities across the Netherlands differ and how could the difference as observed in Dutch newspapers from June until October 1918 be explained. Important to this question is to see what kind of policies were being pursued in the fighting of the flu and where the authority lay in the making of decisions. The research will focus on the discrepancies in the

¹² P. van Trigt, 'Zorg', in: R. Pots, N. Randeraad eds., *Behoedzaam Bestuur: Twee Eeuwen Provincie Zuid-Holland* (Leiden 2014), 339.

¹³ Van Trigt, 'Zorg', 342.

¹⁴ V. Veldheer, 'From Police Municipality to Culture Municipality: Evolving Local Government in the Netherlands', *Local Government Studies*, 23:4 (1997) 71.

Netherlands during the epidemic crisis of the Spanish Influenza with regard to policies and measures imposed on the population to prevent the spreading of this sickness. As will be shown throughout the research there were different perceptions on how to fight this epidemic in municipalities. Municipalities and their decisions are leading in this research and a comparison will be made between municipalities in the eastern provinces of the Netherlands and the western provinces. The city of Amsterdam required extra attention, because the city formed the benchmark of a different approach.

The first chapter of the research will scrutinise how and when the Flu entered the Netherlands. A clear timeline on the development of the Spanish Influenza in the Netherlands provides an unified narrative in the following chapters. By doing this in the first chapter, the background information is provided which makes the rest of the chapters better understandable, without the need to explain the timeline over and over. Newspapers from all corners of the nation were updating on the situation on a daily basis. All these different newspapers combined give an overview of how the flu was spreading in the Netherlands. The timeline stretches from the first reports of Influenza in foreign countries until the end of the pandemic. Extra attention is paid to the three biggest cities at the time as well, Amsterdam, Rotterdam, and The Hague.

The Netherlands experienced three waves of the Spanish Influenza. The first wave was in the summer of 1918 which passed by relatively harmless and with little casualties. The second wave occurred between the end of 1918 and the summer of 1919 and was harsh. The peak of this second wave was from October until January 1919. The innocent character it first had was completely forgotten and replaced by a fearsome character. The last wave was in the first few months of 1920, but these were episodic returns of cases.¹⁵ The focus will be on the second wave in the month of October.

From the first chapter it can be derived that there were some social and geographical distinctions with regard to the Spanish Influenza in the Netherlands. From a social perspective there were some scholars who concluded that social class was of importance during the Spanish Influenza. Social class, as these scholars posed it, determined the exposure to the flu. Besides a social gradient during the Spanish Influenza, there also seemed to have been differences in the extent to which the Influenza raged by a geographical sphere and how the epidemic was seen from these different regions. The second chapter of this research will take a thorough look at the social and geographical aspects of the Spanish Influenza in the Netherlands. It looks at contemporary research to answer the question to what extent there were any social and

¹⁵ Vugs, *In Veel Huizen Wordt Gerouwd*, 50.

geographical discrepancies throughout the Netherlands with regard to the flu. Most important is the difference how the east compared to the west of the Netherlands experienced the flu. This question will contribute to answer the question why municipalities had different approaches to battle the Spanish Influenza.

In the third chapter the central subject is the lack of knowledge that posed a major difficulty to all the involved Dutch authorities in their policymaking. It poses the question to what extent the lack of knowledge made enforcing adequate restrictions or formulating preventive policies nearly impossible for the authorities in the Netherlands. Technological innovation in the biomedical sciences in 1918 were not as they are today. This proved to be one of the most challenging parts of the Spanish Influenza, because how does one figure out the best remedies and precautions against an unknown foe. Many medical experts at the time dared to research and to write about the epidemic, but no scientific proof on the pathogen of the flu was discovered. This gave rise to the many quasi-scientific publications in newspapers where doctors had found the answers, but in the end, this provided the authorities with false information. This lack of knowledge made it truly difficult for the local governments to act, since they were fighting an unknown enemy.

In the last chapter the previous chapters come together and there the question is asked to what extent there were discrepancies in governance between municipalities in the Netherlands. This chapter is built around newspaper articles that gave insights about the decisions of municipalities during the first and second wave of the epidemic. Furthermore, with the help of secondary literature it is explained what role and responsibilities local governments had during the pandemic and how these responsibilities had come about. Furthermore, the difference in measures between the east and the west of the Netherlands is scrutinised. In the end this chapter attempts to explain discrepancies in governance throughout the Netherlands with the findings from the earlier chapters.

In sum, the question to what extent did governance relating to the Spanish Influenza in municipalities across the Netherlands differed and how could the difference as observed in Dutch newspapers from June until October 1918 be explained, can be answered with these four chapters combined.

1.4 Sources and method

Newspapers form the primary sources throughout this research. Although newspapers were subjective in nature regarding macro environmental factors, the complex of all the newspapers together allowed to form a more objective depiction of the situation. Dutch newspapers reported

on the Spanish Influenza in the Netherlands from July 1918 onwards. The database of Delpher provides almost five thousand newspaper articles by searching for the term ‘Spaansche Griep’ in the period between July 1, 1918 and October 31, 1918. Figure 1 in the appendix provides a visualisation of the timeline of newspaper articles concerning the ‘Spaansche Griep’.¹⁶ The peaks in the development of the graph in figure 1 coincide with the periods in 1918 when the Spanish Influenza was raging through the country. First a peak is visible throughout July and August, and it decreased at the end of August. Throughout September the number of articles were few and this coincided with the absence of the epidemic. Next, an increase in articles is visible at the beginning of October, when the epidemic reached its peak in the Netherlands. More on this will follow in the first chapter.

Newspapers did not only report on the development of the flu, but also reported on decisions made by municipalities, published submitted letters by readers, editorials and more subjective pieces. From a wider perspective, all these publications in newspaper create an overview of the past situation. Throughout this research it was attempted to translate all these newspaper articles regarding the Spanish Influenza into an assessment on how municipalities acted. Numerous articles were written on the actions and decisions of municipalities and on the advice from other authorities. These are included throughout the research. The actual method on deciding which article was relevant for the research was simply by manually going through the different papers. Due to the fact that many newspapers have been transcribed and your keywords are highlighted, Delpher allows you to quickly scan whether an article is of any use. That way the articles are selected relatively quickly, but it still required time to go through all the pages of results on the search terms.

Besides the primary sources, secondary sources supported the primary sources. These secondary sources created the foundation for the research question was formed. Although more and more research has been done on the Spanish Influenza worldwide, regional studies are few. Hence, this is where this research tries to fill in the blanks. R. Vugs and A.A.J. Quanjier researched the flu in the Netherlands, but little to nothing was mentioned on the governance in these works. More secondary works are referred to throughout the research with subjects on the geographical diffusion of the flu in the Netherlands, socioeconomic factors and the difference in mortality, the developing role of the local authorities on health care, and demographic characteristics of the Netherlands. Together with the primary sources, these secondary sources allow to find an answer to the main question in the research.

¹⁶ ‘Delpher hits on ‘Spaansche Griep’ between June and October 1918’, <https://delpher.nl>; See appendix figure 1.

2. The flu enters the Netherlands

In order to answer the research question, it is first necessary to clarify how the Netherlands were affected by the Spanish Influenza. Therefore, the first part of the research describes how the Spanish Influenza entered and spread throughout the Netherlands. An understanding of the geographical diffusion of the flu eventually helps to explain the discrepancies in policy between different regions. Besides the diffusion, this chapter scrutinises to what extent the Netherlands were affected by the flu in terms of mortality and morbidity. By describing the course of the flu in different regions of the Netherlands the discrepancies between policies presented in the fifth chapter are supported. Newspapers printed from June until the beginning of August 1918 provided many articles on the epidemic spread of the flu in the Netherlands. By searching for ‘Spaansche Griep’ within this time frame 2.452 results appear.¹⁷ Additional secondary sources such as *De Griep in Nederland in 1918 tot 1920* by A.A.J. Quanjer helped to make a timeline of the geographical diffusion and difference, mortality and morbidity of the Spanish Influenza in the Netherlands.

A year after the Spanish Influenza disappeared from the Netherlands A.A.J. Quanjer published *De Griep in Nederland in 1918 tot 1920*, written by authority of the Central Health Council. It contained a detailed description of numerous aspects of the Spanish Influenza. Since the book was written and published after the Influenza epidemic had passed, it gave Quanjer the opportunity to make up the damage report of the past two years and to give an insight on how the sickness was experienced during those two years. Quanjer described in much detail how the flu entered the Netherlands and what the impact was in terms of mortality, morbidity, and geographical diffusion across the country. Furthermore, he summarised expert opinions of physicians on the possible pathogen of the disease and the course of the disease.

Influenza viruses were no new phenomenon to the Netherlands when it struck in the summer of 1918. The earliest mention of an Influenza virus can be contributed back to 1557 and since then they had returned multiple times. During these epidemics, it was no exception that all family members fell ill because of a chain infection. At least this was the case for less fortunate families. It was thought that within the bourgeoisie the numbers of sick were less since these people followed a stricter and healthier lifestyle, breath fresher air and changed their linen more often than people from lower layers of society.¹⁸ Quanjer hereby made the consequences of earlier pandemics to be a matter of class differences. He wrote about many different pandemics

¹⁷ Delpher hits on ‘Spaansche Griep’ between June and August 1918’, <http://delpher.nl>; See appendix figure 2.

¹⁸ A.A.J. Quanjer, *De Griep in Nederland in 1918 tot 1920* (Den Haag 1921) 5-6.

in which an Influenza virus raged across the Netherlands. During those pandemics it was primarily the small villages in the rural areas that suffered immensely from the sickness. In rural villages no less than a third of the population was disrupted by sickness.¹⁹ Although the morbidity rate of these earlier Influenza pandemics was high, it was mainly innocent with regard to the mortality. That was an important difference with the epidemic that started in 1918.

As early as June 1918 reports of Influenza appeared after the Central Health Council made inquiries in the province of Overijssel. Around this time, more cases were reported from Noord-Holland, Groningen, and Gelderland. Although these were single reports of cases, by July 12, 1918 the Spanish Influenza was regarded to be all over the Netherlands.²⁰ Before it had reached the Netherlands in the summer of 1918 some parts of the world had already suffered from the flu for a couple of months, with the earliest reports dating back to March 1918 in the United States of America in a military encampment.²¹ According to Patterson and Pyle, who researched the geography and mortality of the 1918 Influenza pandemic on a global scale, the flu started in March 1918 in the United States of America. From there it travelled to Europe and East-Asia in April. In May the Influenza spread from South-Western Europe through France and the United Kingdom. It also had a more eastern bound route and from Eastern Europe it entered the Netherlands in July 1918.²² Spinney described the same global diffusion. The first official reported case was in a military camp, Camp Funston, in Kansas on March 4, 1918. Due to the involvement of the United States in the First World War since April 1917, Americans landed on European soil and brought the Spanish Influenza with them.²³

In June the flu had reached Germany and from that moment on the looming danger for the Netherlands became more serious.²⁴ By July Dutch newspapers started to report on the rapid diffusion of Influenza across Germany. On July 3 the Spanish Influenza was scattered almost entirely over Germany.²⁵ It was inevitable for the Netherlands to be spared from the virus and some called it a miracle that the Netherlands was spared so far.²⁶ It became even more worrying when the flu moved to the western parts of Germany at the beginning of July.²⁷ Although Quanjer mentioned the presence of Influenza by the end of June, newspapers first mentioned

¹⁹ Quanjer, *De Griep in Nederland*, 6.

²⁰ Quanjer, *De Griep in Nederland*, 8-9.

²¹ Spinney, *De Spaanse Griep*, 16.

²² Patterson e.a., 'The Geography and Mortality', 6.

²³ Spinney, *De Spaanse Griep*, 55-56.

²⁴ Patterson e.a., 'The Geography and Mortality', 7.

²⁵ 'De Geheimzinnige Ziekte', *Delftsche Courant* (July 3, 1918).

²⁶ 'Overzicht van den Oorlog', *De Amsterdamer* (July 4, 1918).

²⁷ 'De Spaansche Griep', *Nieuwe Haarlemsche Courant* (July 4, 1918); 'Buitenland', *Delftsche Courant* (July 4, 1918).

the presence of the flu in the Netherlands on July 10.²⁸ From an English internment camp in Groningen one hundred cases of Influenza were reported. That same day two cases of Spanish Influenza were reported in the municipality of Losser in Overijssel. Two labourers who worked in Essen, Germany, returned to their families in Losser and upon arrival they showed all signs of the Influenza.²⁹ The labourers worked for a firm called Krupp in Essen, Germany. When they returned to the Netherlands, they most likely carried the sickness with them and upon arrival infected others in their vicinity. One of the labourers later died.³⁰ In a quarantine camp in Gelderland multiple cases of Influenza emerged. Soldiers in a military camp in Assen were put in isolation after falling ill. In Wageningen another report was made of Influenza. It was, however, a harmless flu.³¹

What was feared had become reality by July 10 when the Spanish Influenza reached the Netherlands. Neither the origin, pathogen nor the effects of the disease were known. The people were assured that they had little to worry about and that it was a regular flu. The duration of the flu was estimated to be between four to six days and the first symptoms started with a headache followed by a fever. A sore throat and a dry cough could follow, accompanied by a loss of appetite and overall weakness. Over the course of a few days these symptoms disappeared as quickly as they appeared.³² The velocity with which the Influenza spread, however, was more troubling than the effects on the health of people at that point. In Losser the number of infected increased from two to thirty-eight in two days since the first reports appeared.³³ From July 12 on the Influenza was all over the Netherlands, as Quanjer stated, and from July 13 on the Influenza virus had an epidemic character in the Netherlands. Numerous villages were mentioned in the newspapers where the flu appeared after it first arose in Losser. The army kept records on the daily number of sick soldiers. From these records it can be derived that from July 14 until September 2 more than forty-three thousand military personnel got sick.³⁴ From August 8 the number of casualties started to drop and around the beginning of September cases were sporadically reported.³⁵

Besides the military reports, records on the Influenza were kept in the three big cities at the time, Amsterdam, Rotterdam, and The Hague. From the moment the records were kept on July

²⁸ Quanjer, *De Griep in Nederland*, 8; 'Inlasch.', *De Apeldoornsche Courant* (July 10, 1918).

²⁹ 'Met Klein Verlof', *Provinciale Noordbrabantsche en 's Hertogenbossche Courant* (July 10, 1918).

³⁰ 'De Spaansche Ziekte', *Arnhemsche Courant* (July 11, 1918).

³¹ 'Gemengd Nieuws', *De Standaard* (July 10, 1918).

³² 'De Spaansche Griep Binnen onze Grenzen', *Dagblad van Noord-Brabant* (July 11, 1918).

³³ 'De Spaansche Griep Binnen onze Grenzen', *Dagblad van Noord-Brabant* (July 11, 1918).

³⁴ Quanjer, *De Griep in Nederland*, 9-10.

³⁵ Quanjer, *De Griep in Nederland*, 11.

14 no casualties had occurred in Amsterdam. The first casualty occurred between July 21 and July 27. A week later the number increased to thirteen deaths. The number of casualties kept rising until August 17 by which date the numbers dropped. In the first week of September the medical services in Amsterdam reported 120 cases of sickness within the tramway services while three weeks earlier in August this number was 390 for the same group. Although, the cases that were reported were less numerous, they were more serious in nature. From the twelve hundred cases reported within the tramway services three individuals had died because of complications caused by Influenza.³⁶ In the week of September 8 until September 14 the numbers were at its lowest. Influenza came in three waves in the Netherlands and this period was regarded to be the first wave of the Spanish Influenza. From the last week of September, however, the number of casualties started to increase again. Coinciding with the military records, the records from the three big cities also showed that from August 8 the number of cases of Influenza started to drop.

By August 3 the chief of the medical services in Assen concluded that from that moment on the epidemic prevalence of the Spanish Influenza was over. From the next day on, August 4, all measures taken against the spreading of the Influenza would be revoked.³⁷ While the flu was retreating from Assen, other parts of the country fell subject to it. The *Delftsche Courant* saw a shift in the concentration of infection from military encampments near Delft over to civilians. Families in Delft were coping with the flu and could not provide for themselves, while the threat seemed over in other villages and cities.³⁸ These geographical differences are explained in the next chapter. Overall, over the course of August the Spanish Influenza seemed to retreat and less patients were being reported. Still, the people remained vigilant and the diminishing prevalence did not mean, however, that people became careless. Influenza was still around, but to a lesser extent.

By the last of week of September, the Spanish Flu resurfaced, and the newspapers were filled with reports of Influenza in villages.³⁹ It was not only an increase in the number of flu cases, but the character of the virus had changed. By October the mood had swung to acknowledging the disastrous effects the flu had on the population. Numerous places where people crowded closed their doors temporarily to prevent the further spreading of the virus.⁴⁰ It was in this

³⁶ 'De Spaansche Griep', *De Tribune: Sociaal Democratisch Weekblad* (September 3, 1918).

³⁷ 'Korte Berichten', *Nieuwe Haarlemsche Courant* (August 3, 1918).

³⁸ 'Omtrek', *Delftsche Courant* (August 5, 1918).

³⁹ Quanjor, *De Griep in Nederland*, 12.

⁴⁰ 'Laatste Berichten', *De Tijd: Godsdiensdag- en Staatskundig Dagblad* (October 1, 1918).

month that the mortality rates went through the roof as not seen before.⁴¹ In the period between October and February the numbers of the three big cities were exponentially higher. The peaks in the numbers of deaths varied between the three cities. Amsterdam suffered the most during the months October and November. Rotterdam had less deaths over the same period between October and November, but the weekly average maintained a steady level there over a longer period. The Hague suffered most during the last week of October until the end of December. Although the peaks in the three cities were at different moments, the same pattern of an explosive increase in the numbers of deaths were presented by Quanjer.⁴²

Throughout the entire year of 1918 the number of deaths caused by the Spanish Flu was estimated to be 17.553 in the Netherlands alone. In the summer months July, August and September the total was only 815. In October the number of deaths was more than three thousand, in November over ten thousand and in December just shy from three thousand.⁴³ These varying numbers showed that the character of the flu shifted from relatively innocent to deadly. In 1919 the Influenza remained present across the country, but its nature was less lethal than it was in the last months of 1918. Still, between January and May 1919 almost fifteen hundred people died in the Netherlands because of Influenza. In June of that year the mortality rate was below the average and remained low until January 1920. From that moment there was an increase of deaths again that lasted until March 1920. In total these three waves accounted for more than twenty-one thousand direct deaths from Influenza. The first summer wave in 1918 was a mild scourge, the autumn and winter outbreak in 1918 was the most devastating wave and lasted until the summer of 1919. At last, the people in the Netherlands were tortured by a third wave in the first few months of 1920, which was seen as an extension of the summer wave of 1919. Those twenty-one thousand deaths were the direct result of the effects of the Spanish Influenza. Influenza caused further complications to the health of people and these complications were responsible for more deadly casualties. These complications accounted for almost eight-and-a-half thousand deaths in the Netherlands, resulting in a total of almost thirty thousand Influenza deaths.⁴⁴ This coincided with the results given by Patterson and Pyle. They estimated around twenty-three to twenty-nine thousand deaths and a death rate between 3,3 and 4,2 deaths per thousand inhabitants.⁴⁵ Johnson and Mueller recalculated a higher death rate per

⁴¹ Vugs, *In Veel Huizen Wordt Gerouwd*, 46.

⁴² Quanjer, *De Griep in Nederland*, 11-12.

⁴³ Vugs, *In Veel Huizen Wordt Gerouwd*, 48.

⁴⁴ Vugs, *In Veel Huizen Wordt Gerouwd*, 50.

⁴⁵ Patterson e.a., 'The Geography and Mortality', 14

thousand inhabitants. Their recalculated death toll for the Netherlands was as high as forty-eight thousand deaths with a death rate of 7,1 per thousand inhabitants.⁴⁶

All in all, it is fair to say that the Spanish Influenza had more impact in the Netherlands than it is depicted in the history of our country. In terms of mortality, it may have had more impact than it was first thought. The Influenza epidemic was an individual burden or a burden for families. Disruptions in lives happened within the familial circles.⁴⁷ This may have caused it to be forgotten, since it was an individual memory and not part of a national narrative. The epidemic was overshadowed by the First World War and the difficulties the war presented to the population. Because of the little knowledge on the virus, it was difficult for scientists to make any conclusions at the time. Although it has changed, it is hard to disagree with Spinney on her comment that the Spanish Influenza was regarded as a forgotten crisis and the status of being a footnote in history books.⁴⁸

⁴⁶ Johnson e.a., 'Updating the Accounts', 113.

⁴⁷ Vugs, *In Veel Huizen Wordt Gerouwd*, 12.

⁴⁸ Spinney, *De Spaanse Griep*, 22-23.

3. Social and geographical arbitrariness or differentiation

This chapter focuses on two aspects of the Spanish Influenza in the Netherlands. The emphasis lies on the social and geographical diffusion of the flu during the pandemic. Auke Rijpma and his research group explored the relation between socioeconomic status and excess mortality among men during the Spanish Influenza and found differences in their results.⁴⁹ Besides contemporary research, Quanjer, a year after the pandemic, already concluded that social class was an important factor in mortality during the Spanish Influenza. Besides a social gradient that was suggested by different scholars, a geographical difference regarding the diffusion and impact of the Spanish Influenza in the Netherlands was implicated. Quanjer and Vugs suggested an unequal geographical diffusion of the Spanish Influenza in the Netherlands. Their findings demonstrated that the less populated parts of The Netherlands were affected relatively harder by the Spanish Flu than the more populous regions of the country. In this part of the research the demographic developments of the Netherlands since 1850, which were recorded by Peter Ekamper and his research group, are insightful. Some of their findings on the demographic characteristics of the Netherlands around the time of the Spanish Influenza are useful to explain the geographical differences in the Netherlands.⁵⁰

By combining the works of Auke Rijpma, Quanjer, Johnson and Mueller, and Patterson and Pyle with newspaper articles from Delpher the question can be posed to what extent there were any social or socioeconomic and geographical discrepancies throughout the Netherlands with regard to the Spanish Influenza. Ultimately, the answer to the question showed that there were social or socioeconomic differentiations to what extent people suffered from the Spanish Influenza and that there was a different geographical impact of the flu in the Netherlands. These discrepancies are measured by the increased risks of infection, the higher infection rate or the mortality and excess mortality to see whether social differences meant geographical differences.

Quanjer established that there were differences in mortality when looking at the Spanish Influenza from a geographical and age perspective. Rural areas were hit harder with respect to mortality than urban centres. The Central Bureau of Statistics showed that Zuid-Holland, Utrecht and Noord-Holland, the provinces where most people lived in cities had the lowest mortality rates. Meanwhile Drenthe, Overijssel, Groningen, Friesland, Gelderland, and Zeeland

⁴⁹ A. Rijpma, I.K. van Dijk, R.J. Mourits, R. Schalk, R.L. Zijdeman, 'Unequal Excess Mortality During the Spanish Flu Pandemic in the Netherlands', *Economics and Human Biology*, 47 (2022) 1.

⁵⁰ P. Ekamper, R. van der Erf, N. van der Gaag, K. Henkens, E. van Imhoff, F. van Poppel, *Bevolkingsatlas van Nederland: Demografische Ontwikkelingen van 1850 tot Heden* (Rijswijk 2003).

ranked above the national average mortality.⁵¹ The conclusion that the provinces Zuid-Holland, Utrecht and Noord-Holland suffered the least during the Spanish flu, although most people lived in these urban areas, is most interesting. In absolute numbers, these provinces housed the most inhabitants while the rest of the population was scattered across the less populous rural provinces in the eastern, northern and southern parts of the country. In 1900 Zuid-Holland was inhabited by 1.141.000 people, Noord-Holland 961.000 and Utrecht housed 254.000 people. Gelderland, Groningen, Friesland, Overijssel, Noord-Brabant and Limburg all had higher numbers of inhabitants compared to Utrecht, but when looking at the density of the population in the provinces, Zuid-Holland, Noord-Holland and Utrecht had the highest density. So, although, in absolute numbers Utrecht was not as populous as the other provinces, the number of inhabitants per square kilometre was higher. Zuid-Holland and Noord-Holland had both the highest absolute number of inhabitants as the highest density of inhabitants per square kilometre. Gelderland, Overijssel, Groningen, Friesland, Drenthe, Zeeland, Noord-Brabant, and Limburg all scored lower than the national average of the population density.⁵² Taking these demographic characteristics in account, it is surprising that the highest mortality was experienced in the more rural eastern and northern parts of the Netherlands, instead of the most densely populated areas. Figure 3 in the appendix provides a visualisation of the distribution of the population in the Netherlands in 1900.⁵³

Regarding the sizes of municipalities, Amsterdam, Rotterdam and The Hague were the most populous cities followed by Utrecht, as Vugs also mentioned.⁵⁴ Because of these statistics the fact that these areas were affected the least by the Spanish Influenza are all the more confusing. Some other force rather than the density of the population must have had influence during the pandemic. Other demographic characteristics influenced to what extent different provinces were affected by the Spanish flu. Ekamper and his research group presented interesting demographic statistics on the population structure of the Netherlands from 1850 until now. Their first interesting remark was on the percentage of single-living people in the provinces, and on the sizes of households in the provinces in 1900. They presented an average of 1,75 percent of singles in the Netherlands over the entire population. Noord-Holland, Zuid-Holland and Utrecht individually scored, 2,26 percent, 2,09 percent, and 2,09 percent of singles. Groningen, Friesland, Drenthe, Overijssel, Gelderland, Zeeland and Noord-Brabant were below

⁵¹ Quanjer, *De Griep in Nederland*, 20-21; Vugs, *In Veel Huizen Wordt Gerouwd*, 51.

⁵² Ekamper e.a., *Bevolkingsatlas van Nederland*, 29.

⁵³ Ekamper e.a., *Bevolkingsatlas van Nederland*, 33.

⁵⁴ Ekamper e.a., *Bevolkingsatlas van Nederland*, 36; Vugs, *In Veel Huizen Wordt Gerouwd*, 78.

the national average. Drenthe only had 0,82 percent of singles. These numbers coincided with the sizes of households per province. On average a household in 1900 consisted of 4,51 people. Drenthe, Overijssel, Gelderland, Zeeland, Noord-Brabant and Limburg had more people per household. In Limburg a household consisted of the most people, followed by Gelderland, Overijssel, and Drenthe. Figure 5 in the appendix showed the numbers on these demographic characteristics.⁵⁵ Besides these numbers, the map in figure 6 also showed the distribution of the more sizeable households in 1900.⁵⁶ This map showed a concentration of more sizeable multi-person households in the eastern and southern provinces than in the western provinces.

A possible explanation for the higher intensity of the Spanish Influenza in the eastern provinces might be due to the fact that the sizes of household were higher on average than in the western provinces, which caused a quick spreading within families. Besides the size of a household, there were less people living individually in the east than in the west. A last possible explanation might be the fact that the eastern provinces, where small villages predominated, relied more on their neighbours in the care of the sick during the pandemic and that this caused a higher spreading from family to family. These explanations, however, would require more research.

With lower mortality rates in the western parts of the Netherlands, the way the epidemic was viewed differed from the eastern parts. In the west of the country the mentality towards the epidemic was different from the mentality in Gelderland, where the outbreak of Influenza started earlier and more severe. In the western parts of the Netherlands *De Amsterdammer* saw the Spanish Influenza as a mild scourge. It was not as bad as some people said. People who got infected with the sickness stayed in bed for a couple of days and recovered. Although, there had been some deaths consequently, this was not out of the ordinary compared to other Influenza epidemics. Fact remained, however, that an enormous part of the Dutch population got infected, and the author speculated that a million people had gotten infected out of a population of more than six and a half million.⁵⁷ Of all these infected people only a couple hundred had died. So yes, there was a mild affliction of this Influenza in the Netherlands. Especially in the families where deaths occurred consequently this pandemic remained a difficult memory. By God's grace the epidemic was over in September 1918, although some cases were still being reported, it was not on the same scale anymore as first. The Spanish flu was not the only danger the Netherlands faced at that time. War and famine raged, with the

⁵⁵ Ekamper e.a., *Bevolkingsatlas van Nederland*, 141.

⁵⁶ Ekamper e.a., *Bevolkingsatlas van Nederland*, 146.

⁵⁷ Vugs, *In Veel Huizen Wordt Gerouwd*, 78.

latter being the result of the first. Famine did not extend to all corners of society and all classes, but an epidemic flu did not make distinctions between its victims. It was not something you could hide from. Although these times were hard and all kinds of infectious diseases were waiting to break through, God had preserved them from more disasters. The mild scourge that visited the Netherlands reminded old and young, rich, and poor, educated, or simple men, prominent or lesser men, Christian or non-Christian, secular and religious, the words of the Bible: “Prepare to meet God”.⁵⁸

The author finished his essay on a wistful note by implying the arbitrariness of the Spanish Influenza and the fact that it made no distinction between its victims regarding class, age, and economic and social strata. The research done by Rijpma, van Dijk, Schalk, Zijdeman and Mourits focused on what this author implied. Their research focused on finding significant differences of unequal excess mortality during the Spanish flu in the Netherlands between socioeconomic groups.⁵⁹ Influenza was thought to be a socially neutral disease that affected both the poor and the rich. No socioeconomic gradient was in effect regarding infection or mortality, doctors concluded immediately after the outbreak.⁶⁰ Quanjer supported this by concluding there was no preference for the virus concerning one’s labour or economic status. During the twentieth century it was thought to be a socially neutral disease that infected and killed all classes equally.⁶¹ Over the past few decades this view of equality has changed. Research by Johnson and Mueller has shown that the mortality to the Spanish Influenza was higher in poorer countries. Johnson and Mueller recalculated the mortality rates of all continents and their results showed that Africa and Asia had the highest mortality rates.⁶² Their research was a recalculation of the total amount of deaths across the globe as a result of the Spanish Influenza and the conclusion was that there were more deaths than was assessed by earlier research.⁶³ This was supported by Patterson and Pyle in their research on the geography and mortality of the 1918 Influenza pandemic. In their research they also showed the mortality rates of different regions, and they presented their recalculated mortality rates per continent. From their findings one can also conclude that the poorer continents Asia and Africa had the highest mortality rates.⁶⁴

⁵⁸ ‘Een Lichte Bezoeking’, *De Amsterdammer* (September 4, 1918).

⁵⁹ Rijpma e.a., ‘Unequal Excess Mortality’, 1.

⁶⁰ Rijpma e.a., ‘Unequal Excess Mortality’, 2.

⁶¹ Quanjer, *De Griep in Nederland*, 24.

⁶² Johnson e.a., ‘Updating the Accounts’, 110-114.

⁶³ Johnson e.a. ‘Updating the Accounts’, 115.

⁶⁴ Patterson e.a., ‘The Geography and Mortality’, 14-15.

In the Netherlands in 1918 mortality differences after the age of fifty were only to a limited extent affected by social class, according to Mourits.⁶⁵ In younger age groups which were affected harder by the Influenza, a social gradient in health existed from the end of the nineteenth century on. Van Poppel found that between the ages of thirty-five and fifty-five the elite in the Netherlands had a survival advantage over farmers and middle class, whereas the working class had a survival disadvantage.⁶⁶ Research done by Rijpma found that there were socioeconomic gradients in the excess mortality rates in 1918. Compared to higher-skilled men, medium-skilled men had fifty-five percent higher mortality rates than in normal years. For unskilled workers this percentage was sixty-eight percent higher than of the higher-skilled workers. Lower-skilled workers also had a higher excess mortality rate than higher-skilled workers, but not as high as unskilled and medium-skilled workers.⁶⁷ Occupations where contact with others was inevitable showed twenty percent higher excess mortality. Indoor work was not associated with higher excess mortality.⁶⁸

Their research was based on the death certificates. Two hundred thousand men were mobilised from 1914 to the end of 1918 when the war ended. The army suffered huge amounts of infection among the troops. Upon the death of a soldier, their death certificate would not mention their occupation as 'soldier' but as their occupation before the war. Only 0,2 percent of the death certificates had a mention of a military function. Considering the two-hundred thousand conscripts during these years, there must be an underestimation of deaths among the Dutch military.⁶⁹ Their research explored whether there was a socioeconomic gradient in excess mortality among male workers during the Spanish Flu in the Netherlands. Highest excess mortality was among farmers and unskilled labourers and lowest among higher-skilled labourers. Medium-skilled and lower-skilled labourers fell between the two groups. This is opposite of what Quanjer said about the egalitarian character of the Spanish Influenza.⁷⁰ The research group had also set the hypothesis that working together with others in an enclosed space or regular social interaction at the workplace could have related to increased chances of infection and death with the Spanish flu in the autumn of 1918. They found evidence that social contact at the workplace did predict higher excess mortality during the pandemic, however, it

⁶⁵ Rijpma e.a., 'Unequal Excess Mortality', 2.

⁶⁶ F. van Poppel, R. Jennissen, K. Mandemakers, 'Time trends in social class mortality differentials in the Netherlands, 1820-1920: An assessment based on indirect estimation techniques', *Social Scientific History* 33:2 (2009) 119-153.

⁶⁷ Rijpma e.a., 'Unequal Excess Mortality', 7-8.

⁶⁸ Rijpma e.a., 'Unequal Excess Mortality', 8.

⁶⁹ Rijpma e.a., 'Unequal Excess Mortality', 10.

⁷⁰ Quanjer, *De Griep in Nederland*, 24.

did not matter whether the individuals worked inside or not. They concluded that the higher social strata were to some extent able to protect themselves from the Spanish Influenza.⁷¹ It is of course tempting to say that wealth was the main force behind the discrepancy in mortality, since there were no educational distinctions in mortality for the first half of the twentieth century. Earlier studies have shown inequalities in Spanish flu at the macro level. Neighbourhoods with larger housing had lower mortality and across the globe, poverty was related to a higher mortality.⁷² It is questionable to what extent material resources such as housing mattered in the spread or the prevention of something as the Spanish flu. Material resources were unlikely to fully account for the advantages that social status provided. Social status could have provided for certain health conditions, occupational hazards, knowledge about infectious diseases and access to health care. Further research should be done on these individual aspects to really see a social gradient in the excess mortality during the Spanish Influenza in the Netherlands.

Farmers had higher excess mortality during the pandemic when considering their occupational skill level, occupational social contact, and age composition. This coincided with the findings by Quanjer on the provinces that had the highest mortality rates. In Drenthe, Groningen and Overijssel were the highest excess mortality rates during the Influenza. In these provinces people lived in rural and poor regions and many were involved in farming.⁷³

Halfway through October the capital of the Netherlands was hit by Influenza a lot harder than in August and September concerning the malicious nature of the virus. It was said that in Amsterdam the bourgeoisie and the middle class of the capital suffered the most during the second outbreak. Looking at the high mortality rate in the city, according to the director of the Health Authority, the time of the year should be considered, implying higher mortality rates during the colder months. In Amsterdam a few schools closed their doors temporarily, but this was the schools' individual choice and not imposed by the municipality. Moreover, the director of the Health Authority even stressed the undesirability of the closing of schools. Eighty-eight percent of all inhabitants of Amsterdam lived in crowded houses and closing the schools meant increased risk of infection, since children were more intimate and closer to each other at home than they were in school.⁷⁴ It was a sensible thought as the director put it when it was compared to the situation in the eastern parts of the Netherlands. In the east, entire families were sick due

⁷¹ Rijpma e.a., 'Unequal Excess Mortality', 10.

⁷² Ibidem, 10-11.

⁷³ Ibidem, 11.

⁷⁴ 'Amsterdam', *De Maasbode* (October 19, 1918).

to the high infection rates within families. In the rural areas in the Netherlands, it was more common to live with multiple families in one single room or home.⁷⁵ The chances of a chain infection became greater when everyone was packed together in one room. Exactly this was what the director of the Health Authority tried to prevent.

In this chapter the question was asked to what extent there were any social or socioeconomic and geographical discrepancies throughout the Netherlands regarding the Spanish Influenza. These sources showed that there were social or socioeconomic differentiations to what extent people suffered from the Spanish Influenza and that there was a different geographical impact of the Spanish Flu in the Netherlands. First, there seemed to have been a social gradient at work with regards to mortality as the research by Rijpma showed. Although Qanjer disagreed with that notion in the 1920s, Rijpma provided proof of excess mortality between different socioeconomic groups. In the results it was shown that the lowest working class had the highest excess mortality, making the Spanish Influenza an epidemic that was socially dividing. Second, there was a discrepancy of impact of the Spanish Influenza in terms of geographical diffusion. The less populous areas of the Netherlands, measured in the density of the population, were hit relatively hard. These less populated areas were mainly in the periphery of the Netherlands, namely the eastern provinces. It is surprising to see that these provinces suffered the most from the flu, while Noord-Holland, Zuid-Holland and Utrecht had the most urban areas in their provinces. One would expect the urban areas to have been epicentres of sprouting and spreading of the flu. This proved to be false, and the less densely populated areas were hit the hardest during the epidemic. These findings help to understand the discrepancies between policies in municipalities in the west and the east of the Netherlands. Dissimilarities in impact formed a foundation for dissimilar policies in municipalities.

⁷⁵ Vugs, *In Veel Huizen Wordt Gerouwd*, 96.

4. Lack of knowledge and charlatanism

The geographical discrepancies in the extent and the diffusion of the Spanish Influenza made it difficult to form any policies or to impose measures. Another difficulty was that the policymakers didn't have any scientific knowledge about what was threatening them. No one knew exactly what they were up against and that made it difficult to form a decisive policy in the country as a whole and the municipalities. This part of the research dives into this problematic situation. It poses the question to what extent the lack of knowledge made enforcing adequate restrictions or formulating preventive policies nearly impossible for the authorities in the Netherlands. The main sources were the numerous newspaper articles that were published at the beginning and during the height of the pandemic. These sources showed the dispersed (quasi-)scientific approaches of various professors, newspapers and rumours.

What seemed to be one of the main grounds of inaction by the authorities was the fact that little knowledge was available about the virus. Medical experts could not conclude with any certainty what the nature of the virus was, and this consequently created a significant obstacle to overcome. Albeit little was known the pressure on the medical services increased every day the flu lingered on. It was encouraged to conduct research on the pathogen of the Flu, but the results were diverse and inaccurate. Some discovered the same bacteria as was seen during the 1890 Influenza pandemic, while other researchers did not find the same bacillus, but labelled it as Influenza. Similarities were found with earlier Influenza pandemics such as the one in 1890, but the Influenza from 1918 had a lighter nature and a shorter sickbed, according to Professor Doctor Tjaden. According to him there was no need to isolate patients from each other since it was already too late to take these kinds of measures. The best advice from Prof. Dr. Tjaden was to lay in bed and recover.⁷⁶

Some doctors assumed that the disease affected the intestines and by treating it as a such, Doctor Marioviçi, according to the *Wiener Klinische Wochenschrift*, had brought his patients back to health from the Spanish Flu within 24 hours. He administered his patients with a small amount of calomel –a mercury-chloride which was later discovered to be poisonous to the inflicted people, and a dose of aspirin with caffeine. Within 24 hours his patients recovered. It worked as a laxative of the intestines, but at the same time it poisoned the patients.⁷⁷

The French newspaper the *Matin* published an article that read that the pathogen of the disease was found by two French physicians. The news was republished in Dutch newspapers.

⁷⁶ 'Binnenland', *Arnhemsche Courant* (July 16, 1918).

⁷⁷ 'Kunst: De Spaansche Griep een ingewandsziekte', *Limburger Koerier* (October 2, 1918).

Charles Nicolle and Lebailly had found the pathogen of the sickness and although the microbe was too small for a microscope, they were able to identify the pathogen. Through experiments they were able to conceive the virus in apes and humans. No further information was given on the pathogen of the disease or the experiments.⁷⁸

In Haarlem research had been conducted by the director of the Municipal Laboratory of Pathological Bacteriology L.W. Havelaar on the pathology of the Spanish Influenza. He researched to what extent this flu was similar to earlier epidemics of Influenza, but his main quest was to find the nature of the disease, how it came about, developed and spread. Havelaar emphasised that his research was not done to help find a solution for the disease, but to understand it more thoroughly. Although the aetiology of the Spanish Influenza was still unknown, it was thought to be a bacterial pathogen. Possibly, it was the same bacteria that caused the common cold. The spreading of the virus was done by contact with someone who was infected, mainly through any form of saliva transmission. Statistically, out of seven sick, two fell seriously ill with additional complications. When Havelaar compared age groups, he concluded that the age group of men aged ten to fifty-years-olds made up the largest group of victims. According to Havelaar no precautions were adequate as a remedy if the aetiology was not found. It was not possible to battle something that was unknown and invisible. Until it was discovered what the pathogen was that caused the Spanish Influenza, one could only keep himself from gathering with great numbers of people.⁷⁹ A simple precaution to minimise the risk of infection was to wash the hands and mouth regularly.⁸⁰ Havelaar did succeed in a better understanding of the development and spreading of the virus through his empirical research, but not on the nature or the pathogen.

A reader of the *Provinciale Geldersche en Nijmeegsche Courant* found an article in a German journal where a certain Professor Oscar Loew from Munich claimed to have found the cause of the Spanish Influenza. Due to bad nourishment and a shortage on products such as milk and cheese people lacked the intake of calcium. Only potatoes were on hand and that did not contain enough calcium for a healthy balance. Before the war cheese and milk were available to all but this changed due to the rationing of food that had become scarce. Professor Loew advised to take in some calcium every day. In pharmacies one could buy crystallised calcium chlorine and mix hundred grams of the calcium with six litres of water and then stir it. Adults were supposed to take two spoons three times a day of the mixture and children only

⁷⁸ 'Spaansche Griep', *Zutphense Courant* (October 15, 1918).

⁷⁹ 'De Spaansche Griep te Haarlem', *Nieuwe Haarlemsche Courant* (October 19, 1918).

⁸⁰ 'De Spaansche Griep', *Het Volk: Dagblad voor de Arbeiderspartij* (October 23, 1918).

one spoon three times a day. The body then received a gram of calcium every day and this helped the white blood cells to fight off bacteria. Additional benefits were that the calcium would help to fend off other infectious diseases as well. The findings of Professor Loew were supported by the members of the Biological Association and its chairman Dr. Bachmann.⁸¹ The article was reprinted in the *Nieuwe Tilburgsche Courant*.⁸²

By publishing and reprinting all these non-supported biomedical articles, all kinds of non-scientific solutions circulated amongst the civilisation, without any proof of success or without knowing the possible risks of a remedy. For instance, the mercury-chloride Dr. Mariovič administered to his patients was only later discovered to be poisonous. These newspaper articles encouraged charlatanism. An additional amount of calcium or mercury-chloride were not the only remedies against the Influenza virus. In many newspapers articles arose that advertised all kinds of medicines that prevented or helped to recover from the Influenza. Many examples of charlatanism were exposed by the Association against Charlatanism. One of the best-known remedies against the Spanish flu was the Abbey Syrup from a company in Rotterdam. It was later exposed to be water mixed with sugar and cinnamon. It did not originate from a monastery, and it had no benefits to one's health. Many more supposed medicines appeared which filled the pockets of the producers. The blue and red bottles of electricity by the Italian Count Mattei, the pills and herbs from Jacoba Maria Wortelboer, the imported Menthol Sniff from England and many more.⁸³ It was all in the interest of the people selling the medicines and they were not beneficial to the health, but people were desperate to try anything to keep clear from the virus.

It was thought that alcohol had a disinfecting effect on the body, so advice was given to have a good strong drink to protect yourself from getting sick or to recover quickly.⁸⁴ In the *Twentsche Courant* the use of alcohol was first promoted as a remedy against the Influenza, but the newspaper came back from that opinion. Alcohol, according to the paper, could cause pneumonia or tuberculosis and the Influenza virus had a devastating effect on the lungs as well. Therefore, the use of alcohol only deteriorated health conditions in combination with Influenza. This message was propagated by a church community that also stressed the negative effects alcohol had on families.⁸⁵ This article was coloured by the opinion of the church and there was no proof supporting the disadvantages of alcohol as they said.

⁸¹ 'Ingezonden: De Spaansche Griep', *Provinciale Geldersche En Nijmeegsche Courant* (October 21, 1918).

⁸² 'Spaansche Griep', *Nieuwe Tilburgsche Courant* (October 23, 1918).

⁸³ Vugs, *In Veel Huizen Wordt Gerouwd*, 72-73.

⁸⁴ Vugs, *In Veel Huizen Wordt Gerouwd*, 45.

⁸⁵ 'Drank', *Twentsche Courant* (October 23, 1918).

One article in the *Provinciale Overijsselsche en Zwolsche Courant* put the situation into perspective about the current and past epidemics. Before the Spanish Influenza became notorious the plague and typhus were the most ominous in wartime. Measures were taken to protect the army and the people from these two diseases and the measures were greatly effective. The reason for the effectiveness was that the pathogen of these two diseases was discovered and consequently the adequate precautions were taken. It was known that every disease was caused by a bacteria or bacillus that developed further and poisoned the human body. In response the human body sent its white blood cells to fight the poisonous bacteria or bacillus and these blood cells became more experienced in fighting the bacteria or bacillus over time. It was the way the human body learned to repel diseases. For example, during the first wave of Influenza in Amsterdam there was an unequal distribution of Influenza within a union where the Jewish members suffered more than the non-Jewish members. During the second wave the non-Jewish members of that same union suffered more than the Jewish members, since the Jewish members had likely already learned how to repel the disease.⁸⁶ However, the human body can be helped in the fighting of diseases by understanding what caused it. Adequate measures can be taken once it is understood. This was the case for the plague and typhus. Regarding the Spanish Influenza, nothing was known about the pathogen of the virus and therefore no fitting precautions were possible. For long people had known that proper health and hygiene were beneficial, so this was always recommended. Besides all this, the ancient Greek theory of miasma was still prominent, and people thought that foul air caused epidemics. The risks of getting infected this way were greater when people were crowded together in small classrooms, cafes, churches or any other indoor room. At the end of the article the author remarked that there was only one preventative agent for an infection which was cheap and accessible for all: fresh air. It was signed by an anonymous Dr. J.⁸⁷

Little knowledge was available about this newly developed Influenza. Many physicians and doctors thought they had found the pathogen of the virus or thought they had found the cure. Charlatans provided medicines that were supposed to heal people from the Spanish Influenza, but only filled their pockets. In the end the technology and the biomedical sciences were not developed accordingly to find out what the pathogen of the Influenza virus was. Because of this, there was a lot of guessing and subjective opinions on what was best to do. All in all, it

⁸⁶ 'De Spaansche Griep in de Hoofdstad: Honderden Slachtoffers onder alle Standen', *De Courant* (October 25, 1918).

⁸⁷ 'Uit en Over de Natuur', *Provinciale Overijsselsche en Zwolsche Courant* (October 24, 1918).

was not possible to fight a disease about which nothing valuable was known. This was the problem the governments were faced with.

5. Governance

In this chapter the question is asked to what extent there were discrepancies in governance between municipalities in the Netherlands. This chapter is built around newspaper articles that gave information about the decisions of municipalities during the first and second wave of the epidemic. Furthermore, with the help of secondary literature it is explained what role and responsibilities local governments had during the pandemic and how these responsibilities had come about. Moreover, the different measures between the east and the west of the Netherlands is scrutinised. In the end this chapter attempts to explain discrepancies in governance throughout the Netherlands with the findings from the earlier chapters.

In 1848 the liberal statesman Thorbecke wrote the constitution for the Netherlands, which laid the administrative foundation for the Dutch State. In 1850 the Provincial Law followed that described the governmental powers of the provinces.⁸⁸ The last layer that followed was that of the municipalities. In 1851 the Local Government Act was introduced by Thorbecke, and this made the municipality the uniform, democratic, governmental authority on a local level. The municipal council became the highest organ of authority within this new governing organisation.⁸⁹ It gave the municipality autonomy to act without the central government, although it did form the connection between the national, regional, and local levels of government in the Netherlands. Over the course of the next decades the Local Government Act introduced by Thorbecke became outdated and it was constantly revised and restructured. Thorbeckes' ideas became fluid and organic and adapted to the time. In practice this meant that the role of the municipal government was ever under construction. But, according to the law the role of the municipal government had not changed.⁹⁰ In the twentieth century the tasks of the municipality had grown and became more dynamic than was first designed in 1851. It became a political playground for all those involved in the municipal government, where ideologies became intermingled, opposition grew and the bureaucracy further developed. In other words, it became an institutionalised governmental organ.⁹¹ In practice the local governments behaved different than Thorbecke had foreseen in his Act of 1851 and the borders of the local authorities were slowly expanding. Utility services, infrastructure, housing, public health control, education, food inspection services, unemployment and labour politics and economic intervention all came under the surveillance of the municipality and in that

⁸⁸ S. Couperus, *De Machinerie van de Stad: Stadsbestuur als Idee en Praktijk, Nederland en Amsterdam 1900-1940* (Amsterdam 2009) 13.

⁸⁹ Couperus, *De Machinerie van de Stad*, 2.

⁹⁰ *Ibidem*, 11.

⁹¹ *Ibidem*, 3.

municipality, it was the city council, the mayor and aldermen, and the mayor alone who ruled.⁹² The responsibilities of the municipality were quite extensive and only grew larger and larger from the moment Thorbecke designed it. Thorbecke designed three layers of government in the Netherlands, the Dutch State, the provinces, and the municipalities. In this research the role of the municipalities is scrutinised. Municipalities were responsible for everything that happened within its borders and the public health control was one of those responsibilities. Upon the outbreak of the Spanish Influenza, the people looked to the municipality and the mayor for action. The municipality's responsibilities concerning the public health grew larger in 1860, when the provinces were relieved from this task and this transferred over to the municipalities and local authorities.⁹³ In this chapter it will be scrutinised how different municipalities and different cities and villages responded to the outbreak of the Influenza.

As we've seen in the previous chapter, upon the outbreak of the Spanish Influenza little was known about it and because of that people did not concern themselves too much. When the sickness started to spread throughout the Netherlands it was regarded as a simple flu that caused no reason for concern. After a few days of being sick in bed the flu passed on with no further complications. At the time there seemed to be other pressing subjects that required the attention of the Dutch people. In the eastern provinces of the Netherlands, however, the Influenza was more devastating than in the western provinces. Vugs agreed to this idea, and he concluded that provinces in the eastern countryside of the Netherlands suffered the most deaths because of the Spanish Influenza.⁹⁴ Compared to the diffusion across the rest of the world, this was quite contradictory. On a global scale it was mainly coastal areas, urban centres, and areas with high levels of connection through communication and transport that suffered the most during the epidemic. The remote, rural, and isolated areas were relatively spared on this scale, according to Sverre-Erik Mamelund.⁹⁵ The Netherlands were and still are connected to the rest of the world quite extensively on all borders across land and sea. The idea of Mamelund might have fitted in a global perspective, but on a Dutch national level it was the more remote, rural, and isolated areas that suffered the most from the Spanish Influenza in morbidity and mortality rates. The provinces Noord-Holland, Utrecht, and Zuid-Holland, where most of the population lived at the time and with predominant urban societies, scored below the average when looking at mortality rates as we've seen in the second chapter on the geographical diffusion.⁹⁶

⁹² Ibidem, 12.

⁹³ Van Trigt, 'Zorg', 342.

⁹⁴ Vugs, *In Veel Huizen Wordt Gerouwd*, 51.

⁹⁵ Johnson e.a., 'Updating the Accounts', 106.

⁹⁶ Vugs, *In Veel Huizen Wordt Gerouwd*, 51

In response to the occurring crisis the Central Health Council stepped forward as the authority on the subject and they made an appeal in the *Nederlands Tijdschrift voor Geneeskunde* to all physicians in the Netherlands to report on cases of Influenza and on its epidemiological nature.⁹⁷ Three days after the appointment, the Central Health Council came up with a twofold advice. In view of the possible spreading of the so-called Spanish Influenza the Central Health Council reminded everyone to comply with two measures. The first advice was to keep one's body, house and clothes clean at all times and if needed, to call the medical service. Furthermore, some advice was given specifically to the situation. It was highly recommended to let fresh air in the house during the day and night. Fresh air was necessary in places where a lot of people gathered such as schools, offices, shops, orphan houses, barracks, boats, trams, trains and so on. Fresh air circulation could make the tainted air go away. If there was no proper circulation the blemished air remained in a room and caused the spreading of the flu. Second, no dust was allowed in the house. Dust contaminated and irritated the eyes, the nose, and the throat and in times of infectious diseases this was disadvantageous to one's health. Sweeping up the floor with a broom did not suffice. A vacuum cleaner was preferred. Not everyone owned a vacuum cleaner yet and for those who did not have a vacuum cleaner, the best way to remove the dust was by mopping the house while keeping the windows and doors open. If the virus had already occurred within a household, it was of the utmost importance to isolate the sick from the healthy, if duty or work did not interfere, to minimise the risks of further infection. An extra warning went out about people who were in the first stage of getting sick but experienced no symptoms yet. These people spread the flu without knowing. If anyone suspected symptoms, they were to remain abed and supervisors in workplaces and schools were to send people home when they suspected illness.⁹⁸ As the Central Health Council mentioned, the advice they gave were not necessarily measures to prevent the Influenza from spreading but were hygiene requirements. The emphasis lay on the advice to maintain distance from people who suspected the first symptoms of the Spanish Influenza or people who were 'half-sick'.⁹⁹ Although these were just advices given by the Central Health Council and no restrictions, they could have been helpful in lowering the infection rate.

Around half of July the region Twente, in Overijssel experienced a sudden increase in the number of Influenza patients and simultaneously scarlet fever sprouted in the area. Because of the threat of these two sicknesses combined, it was decided by the municipalities in Twente to

⁹⁷ 'De Spaansche Griep', *Het Vaderland* (July 13, 1918).

⁹⁸ 'Binnenland', *Arnhemsche Courant* (July 16, 1918).

⁹⁹ 'Binnenland', *Arnhemsche Courant* (July 16, 1918).

bring the summer holidays forward to prevent the gathering of people in classrooms. This was decided after only a couple of days that the Influenza was present in the Netherlands, but since then at least twenty-five people had fallen ill. Strangely enough, no measures were taken by any governmental body, whether it was the municipality, the provincial government, or the central government, in order to prevent the movements between borders. Movements between borders caused the first infections in the Netherlands as already mentioned. In Twente turmoil arose because of these movements. *De Courant* expressed their dissatisfaction that no authority had taken any action to prevent these border movements, especially because prisoners of war and deserters were put in quarantine camps upon crossing the border. The prisoners and deserters were put in quarantine camps to ensure they were not carrying the virus and after a few weeks they would be put out of quarantine. For civilians and labourers from foreign countries no quarantine was coerced upon them. This was simply recklessness by the authorities. Although the Influenza was seen as an innocent flu, many labourers from Twente had already died because of it. Furthermore, the government or any other authority was called upon to impose restrictions on the movement of people between borders to prevent the further diffusion of the flu.¹⁰⁰

A most saddening letter on the situation in the world and the Netherlands by an anonymous author was published in the *Twentsch Dagblad Tubantia* in July 1918. Times were changing and the future did not look any brighter than the day before. Shortages and poverty had worn the people down and the conditions for living were deteriorating. It felt as if one crisis followed the other during these years. Even the neutral countries suffered from the war. This was unfortunately the right of belligerents. Indigence remained as long as there was no peace. Undernourishment remained and weakened the people's health, making them more susceptible to all kinds of sicknesses. Numerous infectious diseases spread across the Netherlands and the so-called Spanish Influenza was one of them. The Spanish Influenza was omnipresent in all the bordering countries of the Netherlands, so it was a matter of time before it reached our people. Many sufferers from Influenza travelled from foreign countries back to their families in the Netherlands to be taken care of and this way they infected their families. No action was taken to restrict the mobility of these people that brought the virus to our country. Should it not have been the government, the author questioned, to limit the mobility of the people traveling from highly infected border countries to fend off the Influenza or to minimise the risks of infection. For prisoners of war and soldiers travelling through the Netherlands quarantine camps had been

¹⁰⁰ 'De Spaansche Ziekte in Twente', *De Courant* (July 12, 1918).

set up to minimise the risks, but civilians were free to roam around between borders. The author called upon the government or any authority to intervene and to monitor the people coming into the country. Concludingly, the author wrote ‘Men dempe den put, nu het nog niet heelemaal te laat is!’¹⁰¹

In the East of the Netherlands the pandemic seemed to be harsher than in the cities in the West. In Oldenzaal in Drenthe on October 2, around fifteen hundred people were sick of a total of seven thousand inhabitants. Because of the high morbidity rate an inspector of the Counsel of Public Health decided to close all schools, with no exceptions. Moreover, all gatherings were prohibited. Even the church services were suspended. An investigation was to be carried out by the Health Commission to see whether the little factories in households complied with public health legal requirements. More help in the care of the sick was needed, because in numerous households all members of a family were sick, hence the possible expansion of district nursing was discussed.¹⁰² In Almelo there was urgent need of assistance for medical specialists since two of the local doctors had fallen ill themselves. The solution was to send military doctors to Almelo to assist the remaining staff. Mortality in Almelo was very high and entire families were sick.¹⁰³ With the pressure on the doctors in Almelo the mayor addressed the Minister of Interior to ask for assistance by military doctors.¹⁰⁴

Nearby Almelo and Oldenzaal where the flu caused many victims the mayor of Enschede suspended the schools after being advised by the State Public Health Authority to do so.¹⁰⁵ After Enschede, Almelo and Oldenzaal, it was the turn of Brummen in Gelderland to close its schools with half of the pupils being sick.¹⁰⁶ The mayor of Enschede urged the inhabitants to avoid houses or rooms where people crowded together unless it was unavoidable.¹⁰⁷ In Doetichem the Christian school was closed for a week after fifty percent of the children was sick.¹⁰⁸ Meanwhile in Enschede two new doctors arrived to help fight the Influenza. It was causing so much disruption within families that care by family members was no longer possible.¹⁰⁹ Besides Enschede, an inspector of the Public Health Authority visited Lonneker and after the inspector and the mayor discussed the situation, the mayor decided to close down the schools from that day on. He suspended the Sunday school and the religious education on

¹⁰¹ ‘Dingen van den Dag’, *Twentsch Dagblad Tubantia en Enschedesche Courant* (July 13, 1918).

¹⁰² ‘Oldenzaal’, *Twentsche Courant* (October 2, 1918).

¹⁰³ ‘Gemengd Nieuws’, *De Nederlander* (October 7, 1918).

¹⁰⁴ ‘Gemengd Nieuws’, *Het Vaderland* (October 8, 1918).

¹⁰⁵ ‘Gemengd Nieuws’, *De Amstelbode*, (October 8, 1918).

¹⁰⁶ ‘Gemengd Nieuws’, *Het Vaderland* (October 9, 1918).

¹⁰⁷ ‘Gemengd Nieuws’, *De Nieuwe Courant* (October 9, 1918).

¹⁰⁸ ‘Verscheidenheid’, *Het Huisgezin* (October 9, 1918).

¹⁰⁹ ‘Uit Twente’, *Het Centrum* (October 10, 1918).

Sundays.¹¹⁰ The advisory authority lay with the Counsel of Public Health, but the executive power remained with the mayor and the municipality. The closing of schools spread further to Zuidzande in Zeeland, Losser in Overijssel and Velp in Gelderland.¹¹¹ The closing of schools implied the spreading of the Influenza amongst children mainly. Nowhere yet was mentioned that factories or companies had been closed.

In Enschede, measures got stricter by October fifteen when the city council decided to suspend all church activities, to ban the agricultural winter courses and the city council was considering banning all public amusements.¹¹² Furthermore, a lecture by a professor was cancelled that was planned on the seventeenth and the get-together on the twentieth, rehearsals by the church choirs as well. All these activities were cancelled on the request of the municipality. In Almelo it was decided to extend the summer holidays for children even longer. In Gronau all schools were closed from the day after on.¹¹³ In Erp, a small village in Noord-Brabant, the schools had been reopened after being closed for one week. It was hoped for that no further actions would be required to fight the Spanish Flu.¹¹⁴

In Enschede the municipal council came together for a City Council meeting and various subjects were discussed. One of the subjects was the current situation on the Spanish Influenza. A law dating from 1872 on infectious diseases called the Law on Infectious Diseases gave the municipal council authority to act when diseases threatened the public health. The only problem was that Influenza was not one of those diseases adopted on the list. So, when the flu started to appear, on paper the municipal council had no authority to impose any restrictions. But when the Spanish Influenza was putting pressure on the public health it required no further explanation that the municipal council should have the authority to impose measures as to where people gathered or to close public places to prevent the spreading of the virus. The easiest way to limit the gathering of people was to look where people gathered and then close those places. The mayor and the aldermen of Enschede believed that closing places where alcohol was served might be very helpful. Hence, they proposed the ordinance to close all the taprooms. The proposed ordinance was supported by the Central Health Council and the Commission for Criminal Procedure. The ordinance was approved by all parties concerned and the restrictions came into immediate effect and would last until the sickness was curbed. The City Council hoped for support from all in the compliance of the new rules. It was necessary for the City

¹¹⁰ 'Spaansche Ziekte', *De Tribune: Sociaal Democratisch Weekblad* (October 11, 1918).

¹¹¹ 'Gemengd Nieuws', *De Standaard* (October 12, 1918).

¹¹² 'Gemengd Nieuws: Spaansche Griep', *Het Vaderland* (October 15, 1918).

¹¹³ 'Twentsch Nieuws', *Twentsch Dagblad Tubantia en Enschedesche Courant* (October 15, 1918).

¹¹⁴ 'Korte Berichten', *Provinciale Noord-Brabantsche en 's-Hertogenbossche Courant* (October 16, 1918).

Council to impose this rule since Enschede was hit astonishingly hard by the Influenza. Some doctors cared for six hundred to a thousand patients at the same time. Furthermore, the number of deaths increased at that time and the mortality was almost three times higher than in normal times. Medical assistance was requested from outside of Enschede to relieve the doctors in Enschede. The request for the medical assistance was made to the government.¹¹⁵ For the additional medical help extra credit was granted by the city council.¹¹⁶ Some days after requesting the medical help three semi-doctors from Amsterdam were deployed to Enschede and an additional three doctors were expected to come. The ordinance on the closing of the taprooms meant the closing of cafes and bars at ten o'clock in the evening.¹¹⁷

In Zwolle action was taken on the same level of local authority when the municipality decided to close the schools on October seventeenth. Before this was decided upon, advice had been sought from the medical authorities, but in the end it was the municipal council that tied the knot.¹¹⁸ In Almelo the mayor closed the schools and suspended all activities in the city. Although five additional doctors had arrived in Almelo, the pressure on all medical services remained too high. Besides the pressure on the doctors the number of deaths increased rapidly and concerned the municipal council. The mayor decided, after being advised by the medical authorities to suspend all activities until further notice. The closing of schools was extended by a week.¹¹⁹

At the same moment in October 1918 Arnhem was still spared from the same faith as Enschede, but the city was aware of the lurking threat. As the flu was spreading through other cities and villages and disrupting public life, Arnhem was grateful for being spared thus far. Although Arnhem had been spared so far, they emphasised the importance of staying alert for a destructive outbreak of the flu in the near future. Many cases of flu were already reported in the city and the city prepared for a possible outbreak on a much larger scale. While reminding the people of their hygiene the municipality created a plan for locations that could be used as emergency hospitals. At that moment the situation in Arnhem did not call for any measures to be taken, but the purport of the article was to rather be safe than sorry.¹²⁰ Eventually the precautionary measures taken in Arnhem deemed necessary and a building for physical education was reorganised into an emergency shelter two days later. The classroom functioned

¹¹⁵ 'Gemengd Nieuws', *De Standaard* (October 18, 1918).

¹¹⁶ 'Publicaties', *Twentsch Dagblad Tubantia en Enschedesche Courant* (October 16, 1918).

¹¹⁷ 'De Spaansche Griep', *De Avondpost* (October 20, 1918).

¹¹⁸ 'Laatste Berichten', *Provinciale Overijsselsche en Zwolsche Courant* (October 16, 1918).

¹¹⁹ 'Twenthe', *Provinciale Overijsselsche en Zwolsche Courant* (October 16, 1918).

¹²⁰ 'De Spaansche Griep', *Arnhemsche Courant* (October 18, 1918).

as a room where all the sufferers were isolated from the rest of the inhabitants.¹²¹ According to the *Nieuwe Rotterdamsche Courant*, however, the number of sick in Arnhem increased at such a high rate that the hospitals and barracks were overcrowded. Hence, the transformed classroom proved to be absolutely necessary as an emergency hospital.¹²² Besides the emergency hospital the school doctor advised the mayor and aldermen to close the schools if more than five children caught the flu. Moreover, children were prohibited to come to school if one of their family members showed symptoms of illness or had caught the flu.¹²³

In Heerhugowaard, Noord-Holland, the schools were closed on October 13 when 99 of 152 children were reported sick. It was closed until October 21 on advice by the local doctor. Besides the flu, scarlet fever and typhus sprouted as well in Heerhugowaard. In Winkel, Noord-Holland, the school was closed because of scarlet fever and typhus, not because of the flu.¹²⁴ On October 14 *De Standaard* mentioned the presence of a new wave of the flu in Amsterdam. Some classrooms were almost completely empty, and it was said that the flu went hand in hand with pneumonia. Furthermore, it was said that the flu was mainly present within the bourgeoisie.¹²⁵ In Nieuwer-Amstel two of the nine schools were closed because of the high sick rate among children, but it was unclear why the remaining seven schools were still opened although regular classes were not possible due to the amount of sick.¹²⁶ Around half of October the Spanish Influenza reached the Randstad more and more. In Rotterdam, Warmond, Oudekerk aan de IJssel and Delft schools and educational institutions were closed due to the high morbidity rates. Other villages and cities that were mentioned were Hardenberg, Heerenveen, Hasselt, Lintelo, Spakenburg, Naaldwijk and Oudewater. By this point the Spanish Influenza had reached every corner of the Netherlands.¹²⁷

De Telegraaf reported on the situation in the capital of the Netherlands, Amsterdam. The second wave was far worse than the first wave. At the moment the article was written it was estimated that five percent of the citizens in the capital was suffering from the Influenza. Most worrying was the fact that the cases reported included far more cases of pneumonia as a collateral complication.¹²⁸ In the vicinity of Amsterdam the pressure on the medical staff was enormous. A doctor from Amstelveen, Noord-Holland, had to visit 72 families on a single day

¹²¹ 'Gemengd Nieuws', *De Maasbode* (October 20, 1918).

¹²² 'Gemengde Berichten', *Nieuwe Rotterdamsche Courant* (October 20, 1918).

¹²³ 'De Spaansche Ziekte', *Zutphense Courant* (October 22, 1918).

¹²⁴ 'Spaansche Ziekte', *Het Vaderland* (October 13, 1918).

¹²⁵ 'De Spaansche Griep', *De Standaard* (October 14, 1918).

¹²⁶ 'Spaansche Ziekte', *Algemeen Handelsblad* (October 14, 1918).

¹²⁷ 'Gemengd Nieuws: Spaansche Griep', *De Standaard* (October 15, 1918).

¹²⁸ 'De Spaansche Griep te Amsterdam', *De Telegraaf* (October 15, 1918).

after the consultation hours.¹²⁹ The discussion arose that the schools in Amsterdam were the main sources of the spreading of Influenza. Young children went to school, got infected by their classmates and then returned home to spread the virus in their family. *De Standaard* therefore implied in their article that it should be considered by the local authorities to close the schools temporarily and disinfect all the rooms.¹³⁰ An estimated thirty thousand inhabitants of Amsterdam were sick at that very moment, so the implication for restrictions and the closure of the schools appeared to be justified.¹³¹ It was an enormous amount of sick people when taking into account that Amsterdam had six-hundred-forty thousand inhabitants at the time, meaning that almost four and a half percent of the people in Amsterdam was sick.¹³² This coincided with the earlier mentioned article that concluded that about five percent of the people from Amsterdam were sick.¹³³ Besides these worrying numbers, Amsterdam had a contradictory approach in the fighting of the virus. It was decided in the meeting of the city council by the mayor and his aldermen that the schools would not be closed, after the city council was advised by Dr. Ringeling, the Director of the Central Health Authority. It was thought that the closing of the schools would only exacerbate the spreading of the Influenza. No conclusion had been drawn by any medical expert on where the virus was spreading the most.¹³⁴ According to some it was in the classrooms where the Influenza spread at a fast pace.¹³⁵ *Het Nieuws van den Dag* was not convinced of this and published the article about the decision of the city council to keep the schools open. Sending the kids home could even have caused greater risks of infection when children who may have carried the flu played together and consequently infected the rest of their families. At the same time, children remained at home when they had fallen ill anyways and that caused the schools to be emptier than in normal times. Hence, the usefulness of closing the schools officially was questioned. Some private schools did choose to close their doors, but the city council did not see any immediate reasons to close the rest.¹³⁶

On October 21 the Central Health Authority held a meeting in the city hall of Amsterdam on different subjects and one of them was of course about the Spanish Influenza. Again Dr. Ringeling, the director of the Central Health Authority, expressed his scepticism on the measure

¹²⁹ 'Amsterdam', *De Amstelbode* (October 15, 1918).

¹³⁰ 'De Spaansche Griep', *De Standaard* (October 17, 1918).

¹³¹ 'Binnenland', *Rotterdamsch Nieuwsblad* (October 17, 1918).

¹³² Vugs, *In Veel Huizen Wordt Gerouwd*, p. 78.

¹³³ 'De Spaansche Griep te Amsterdam', *De Telegraaf* (October 15, 1918).

¹³⁴ 'De Spaansche Griep op de Scholen', *Het Nieuws van den Dag* (October 20, 1918).

¹³⁵ 'Gemengd Nieuws', *De Standaard* (October 18, 1918).

¹³⁶ 'De Spaansche Griep op de Scholen', *Het Nieuws van den Dag* (October 20, 1918).

of closing the schools, although this was urged from different sides. His plea was supported mainly by the living conditions in Amsterdam. In the overcrowded houses contact between children was much higher than in school. Influenza numbers would only increase rather than decrease. If education was impossible due to the lack of personnel, then schools needed to close, but not before that happened. Parents who wanted to keep their children at home to protect them from the Influenza would not be held back from doing so by the Compulsory Education Law. This only applied to children in primary school. Some secondary schools had access to spacious classrooms and had places where the students could play in the open air without much contact. Although the Compulsory Education Law did not apply to students in secondary school, a certain gentleman Th. Van der Waerden asked during the meeting whether it was possible to have the directors of these schools with spacious rooms to oblige them to come to school or to have the directors decide for themselves to close the doors or to stay open. Eventually Dr. Ringeling concluded that temporary closing was desirable if children had access to open air at home. For secondary school children it might be possible to isolate them from each other by closing the schools. In the end, all subjects discussed and advised were sent over to the mayor and the aldermen.¹³⁷

The closing of schools spread further across the Netherlands from the eastern parts and in Bennebroek, Leiden, Nijmegen, Wormerveer and Pieterzijl schools were closed by the city councils.¹³⁸ Throughout October many more villages and cities started closing the doors of their public schools. So far only the municipality of Amsterdam was unwilling to take any measures in the fight against the Spanish Influenza and saw no need in the closing of schools.¹³⁹ In Haarlem all public schools were closed until November 4. In the vicinity of Haarlem, they thought to have circumvented the Influenza, but eventually the region did not stay clear of the flu.¹⁴⁰

Later on, the situation in Amsterdam was deteriorating with higher mortality numbers than weeks before. Rumours about the pneumonic plague circulated through the city but these were gossips. Little could be done to protect yourself against the Influenza, but in order to try to do so people walked around with formamint in their mouths. It was an aid in the prophylaxis of throat infections, and it was used in place of gargles for mouth and throat irritations.¹⁴¹ It was

¹³⁷ 'Gezondheidscommissie', *Algemeen Handelsblad* (October 22, 1918).

¹³⁸ 'Gemengd Nieuws', *De Standaard* (October 22, 1918).

¹³⁹ 'De Spaansche Griep op de Scholen', *Het Nieuws van den Dag* (October 20, 1918).

¹⁴⁰ 'Stad en Streek', *Nieuwe Haarlemsche Courant* (October 23, 1918).

¹⁴¹ National Museum of American History, https://americanhistory.si.edu/collections/search/object/nmah_715853 (last accessed on January 10, 2023).

not harmful to use, according to the article, but neither was it mentioned to work against the Influenza. On the question of the closing of schools the mayor and aldermen stood by their first decision of not closing. Especially in the densely populated working-class neighbourhoods the risks of infection would only increase once the children were sent home. One change in this policy was that parents who wanted to keep their kids at home were allowed to do so if they notified the school board by letter. When looking at the numbers of casualties and age groups, it showed that the most casualties were in the age groups from twenty years old and older, so the closing of schools was not necessary.¹⁴² When the discussion was raised on the closing of universities it was decided to keep the Public University of Amsterdam open. Since the theatres, cafes and cinemas remained open as well, there was no concern to leave the university opened as well.¹⁴³

At the end of October, the mood in Amsterdam had swung to a more concerned state of mind. Mortality and morbidity numbers were higher than ever before and the fear for infection was great which became visible by the empty cafes, restaurants, theatres, and trams where the places on the balconies outside were the most desired. On a single day 122 people had died, a number three or four times higher than usual.¹⁴⁴ These circumstances prompted the school doctors of the Municipal Health Service to write a letter to the municipal council of Amsterdam. In this letter they notified the mayor to disagree with the advice given by Dr. Ringeling from the Health Authority to not close the schools. The school doctors voted and five out of six opposed the decision by the city council to keep the schools opened. Dr. J. Leda further clarified the opinions of the school doctors in little words. Little words because there was so little to write about the Spanish Influenza. Both parties, the ones in favour of closing and the ones opposed to closing, had no real scientific proof to support their opinions. What remained were subjective opinions and gut feelings that determined the policy. Only one thing the doctors were convinced of, which was supported by their gut feeling, was that taking no action and leaving the schools opened would only lead to more and more infections.¹⁴⁵ The *Telegraaf* interviewed Professor Ruitinga from the *Binnengasthuis* in the centre of Amsterdam, who treated severe cases of Spanish Influenza. In his view, the only way to turn the epidemic around was to completely isolate the society from each other. How would this be attainable in Amsterdam, or even in the Netherlands as a whole. Furthermore, he raised the question on the difficulty to

¹⁴² 'Amsterdam', *Nieuwe Rotterdamsche Courant* (October 25, 1918).

¹⁴³ 'Stadsnieuws', *Het Nieuws van den Dag* (October 29, 1918).

¹⁴⁴ 'De Spaansche Ziekte: In de Hoofdstad', *De Telegraaf* (October 30, 1918).

¹⁴⁵ 'Een Onderhoud met Prof. Ruitinga', *De Telegraaf* (October 30, 1918).

decide when the schools should be reopened after they were closed. How was it possible to identify the moment it was safe to let children return to school, Dr. Ruitinga asked. Both the arguments made by Professor Ruitinga, as by the school doctors in the person of Dr. Leda depicted the difficult situation and the difficult choices all policymakers were faced with. Without any knowledge on what was threatening the people, it was hard to make any policy. Hence, in all corners of the Netherlands the policies differed. In one town the schools were closed until further noticed, all activities were banned, and the cafes and bars were empty, while in the other town no action was taken because it was believed to be in vain. It was difficult to fight an invisible enemy, especially when the scientific knowledge was not there yet to help find the solution.

In The Hague the second wave of Influenza came somewhat later than the eastern parts of the Netherlands and Amsterdam. On October 24 the newspapers reported on the second wave in The Hague. Mainly schools and the children were affected by it. The mayor and aldermen decided to close the municipal schools after advice was given by the school doctors. The fear of the Influenza expanding was great and if it did expand, the mayor would shut down all public schools. The closing of all schools, however, was a last resort since the mayor had a similar way of thinking as the mayor in Amsterdam. He as well assumed that if the schoolchildren were sent home, they would be infected even quicker than in school. The children were underfed and that was not good for their health. If these malnourished children played outside with each other or roam the streets they would be more susceptible to infection.¹⁴⁶ At the end of October there was no reason for concern in The Hague as the situation was unlike Amsterdam, Rotterdam, or Twente. The reason for this was because of the exceptional way The Hague was built in the length, rather than in the height as in Amsterdam and Rotterdam. In the case of the latter the houses were built in the height within the city walls, but The Hague expanded outside the city and therefore the population was spread out more evenly. The density in the city was lower than in Amsterdam and Rotterdam where people were cramped up on top of each other which caused unhygienic environments.¹⁴⁷ On October 30th the mayor and aldermen started to plan the closing of all schools in The Hague since the Influenza was expanding too rapidly. Together with the Association for Holiday Activities the municipal council looked at possibilities to keep the school children active in the open air while the schools were closed.¹⁴⁸

¹⁴⁶ ‘S-Gravenhage’, *Nieuwe Rotterdamsche Courant* (October 24, 1918).

¹⁴⁷ ‘Plaatselijk Nieuws’, *De Nieuwe Courant* (October 25, 1918).

¹⁴⁸ ‘Sluiting der Scholen in de Residentie’, *Arnhemsche Courant* (October 30, 1918).

This chapter raised the question to what extent there were discrepancies in governance between municipalities in the Netherlands. This chapter was primarily built on newspaper articles that reported on the different actions of municipalities in the western and eastern provinces of the Netherlands. What appeared was that the municipalities in the eastern parts of the Netherlands were quicker and more willing to impose restrictions on their inhabitants to prevent the spreading of the virus. Schools were closed and many other public events were cancelled for the time being and even ordinances for the closing of taprooms were issued. In the rural areas the schools were closed since that was the place where people would gather. There was a higher desire to take measures in these provinces. In the western provinces this desire was lacking. By taking The Hague and Amsterdam as examples, the willingness to act against the virus was little to none during the first two waves of the virus. Amsterdam did not see the importance to close schools, because the municipal council there believed this would lead to more infections in households. It would lead to people being cramped up in their overcrowded houses in the working-class neighbourhoods. The Hague was built in the length, rather than in the height, so the people were spread out more evenly and therefore The Hague was less densely populated. Therefore, the mayor did not see any reason to impose measures on his city. In the end it can be concluded that there were discrepancies between the municipalities in the eastern and western provinces of the Netherlands. The willingness to impose measures by the local authorities coincided with the degree of impact of the flu in that province or region.

From an east versus west comparison, it becomes clear that the eastern parts of the Netherlands were more willing to act and impose measures upon the municipality in order to repel the Influenza. In the western provinces, with a specific focus on Amsterdam, the willingness to act was far lower. Another mindset was visible in the capital, where taking measures against the flu were thought to be contributing to the further spreading of the Spanish Influenza. When it is looked upon from a rural versus urban point of view, there were also discrepancies in the policies. In the rural areas the schools were closed because that was the place where people would gather. In Amsterdam it was thought that closing the schools as a measure would only increase the infections, since this would mean that the overcrowded popular neighbourhoods would only be more crowded by all children.

Although there was a lot of attention for the Spanish Influenza there seemed to be an overall lack of governance in the Netherlands, especially in Amsterdam. Municipalities made their own decisions on what deemed necessary. Influenza was approached in different ways because it

was experienced differently throughout the Netherlands. Consequently, this caused discrepancies in the Netherlands in the policies towards the Spanish Influenza.

6. Conclusion

Central throughout this research was the question to what extent did governance relating to the Spanish Influenza in municipalities across the Netherlands differ and how could the difference as observed in Dutch newspapers from June until October 1918 be explained. Subsequent questions were asked to help formulate an answer to the main question. First, it was important to know how the Spanish Influenza entered the Netherlands and how it affected the Netherlands. Therefore, the first chapter was a describing chapter in which an overview of the development of the flu was given. This was necessary for the following chapters. It can be concluded that the Spanish Influenza entered the Netherlands at the beginning of July 1918 through labourers returning from Germany to their homes while carrying the Influenza virus with them. In their hometowns in the eastern provinces, they spread the virus and from that moment on the epidemic started. From July 13 on the virus was recognised to be an epidemic and it was omnipresent in the Netherlands. After some weeks with many sick, but low mortality, the epidemic seemed to have passed and at the end of August it was thought to be over. From September on, the numbers started to increase again and exploded from the first week of October which lasted until January 1919. In the end the Netherlands were thought to have suffered thirty thousand deaths either directly or indirectly from the Spanish Influenza. All in all, the Spanish Influenza had more impact in the Netherlands than it was depicted in the history of our country. In terms of mortality, it may have had more impact than it was first thought. Moreover, the Influenza epidemic was an individual burden or a burden within a family. Disruption happened within the familial circles.¹⁴⁹ This may have caused it to be forgotten, since it was an individual memory. Besides, the epidemic was overshadowed by the First World War and the difficulties the war presented to the population. In addition, the little knowledge on the virus made it difficult for scientists to draw any conclusions at the time. It is hard not to agree with Spinney that the Spanish Influenza was just a note in the history books and a forgotten pandemic, although this changed over the last few decades.¹⁵⁰

Second, the question was asked to what extent there were any social or socioeconomic and geographical discrepancies throughout the Netherlands regarding the Spanish Influenza. These sources showed that there were social or socioeconomic differentiations to what extent people suffered from the Spanish Influenza and that there was a different geographical impact of the Spanish flu in the Netherlands. First, there seemed to have been a social gradient at work with

¹⁴⁹ Vugs, *In Veel Huizen Wordt Gerouwd*, 12.

¹⁵⁰ Spinney, *De Spaanse Griep*, 22-23.

regards to mortality as the research by Rijpma showed. Although Quanjer disagreed with that notion in the 1920s, Rijpma provided proof of excess mortality between different socioeconomic groups. In the results it was shown that the lowest working class had the highest excess mortality, making the Spanish Influenza an epidemic that was socially dividing. Second, there was a discrepancy of impact of the Spanish Influenza in terms of geographical diffusion. The less populous areas of the Netherlands, measured in the density of the population, were hit relatively hard. These less populated areas were mainly in the periphery of the Netherlands, namely the eastern provinces. It is surprising to see that these provinces suffered the most from the flu, while Noord-Holland, Zuid-Holland and Utrecht had the most urban areas in their provinces. One would have expected the urban areas to have been epicentres of the spreading of the flu. This proved to be false, and the less densely populated areas were hit the hardest during the epidemic. These findings helped to understand the discrepancies between policies in municipalities in the west and the east of the Netherlands. Dissimilarities in impact formed a foundation for dissimilar policies in municipalities.

Third, the question was raised to what extent the lack of knowledge made enforcing adequate restrictions or formulating preventive policies nearly impossible for the authorities in the Netherlands. Little knowledge was available about this newly developed Influenza. Many physicians and doctors thought they had found the pathogen of the virus or had found the remedy against it. No one, however, really found the pathogen although many attempts were made by scientist. This resulted in a lot of non-scientific or quasi-scientific publications in newspapers which were reprinted and spread across the Netherlands. All this false information made it difficult for the authorities to form any policy. Battling an invisible enemy was unfeasible. Besides all kinds of expert opinions of physicians and scientists, charlatans provided medicines that were supposedly the answer to the flu, but only filled their pockets. The unknown flu provided the perfect foundation for charlatans to sell and invent drugs or blends to fight off the Spanish Influenza. In the end the technology did not yet exist to find out what the pathogen of the Influenza virus was. Because of this, there was a lot of guessing and subjective opinions that formed the foundation of decision-making, together with advice from the Health Authority. In sum, it was not possible to fight a disease about which nothing valuable is known. This was the problem the governments, but also all health authorities were faced with. Consequently, the virus was a complicated matter that required more knowledge than there was at hand.

Fourth, this chapter raised the question to what extent there were discrepancies in governance between municipalities in the Netherlands. This chapter was primarily built on

newspaper articles that reported on the different actions of municipalities in the western and eastern provinces of the Netherlands. The municipalities in the eastern parts of the Netherlands were quicker and more willing to impose restrictions on their inhabitants to prevent the spreading of the virus. Schools were closed and many other public events were cancelled for the time being and even ordinances for the closing of taprooms were issued. In the rural areas the schools were closed because that was the place where people gathered. There was a higher desire to take measures in these provinces. In the western provinces this desire was lacking. With The Hague and Amsterdam as examples, the willingness to act against the virus was little to none during the first two waves of the virus. Amsterdam did not see the importance to close schools, because the municipal council there believed this would lead to more infections within households. It would lead to people being cramped up in their overcrowded houses in the working-class neighbourhoods. The Hague was built in the length, rather than in the height, so the people were spread out more evenly and therefore The Hague was less densely populated. Hence, the mayor did not see any reason to impose measures on his city. In the end it can be concluded that there were discrepancies between the municipalities in the eastern and western provinces of the Netherlands. The willingness to impose measures by the local authorities coincided with the degree of impact of the flu in that province or region.

At last, a conclusive answer can be formulated to the question to what extent governance relating to the Spanish Influenza in municipalities across the Netherlands differed and how the difference can be explained. From all the information gathered in the research and the conclusions of the sub-questions it can be stated that there were discrepancies in governance regarding the Spanish Influenza among the municipalities in the Netherlands. Discrepancies became visible in governance between municipalities in the eastern provinces of the Netherlands and municipalities in the western provinces. Specifically, Amsterdam and The Hague jumped out as unwilling and passive municipalities. Why these differences were there was because of a couple of reasons. First, the Spanish Influenza impacted regions differently in terms of morbidity and mortality. The eastern provinces experienced graver waves of Influenza, although the density of the population was less. In these rural provinces many worked on the lands and from research it was concluded that farmers and other low-skilled labourers experienced higher mortality. In the more urban provinces Noord-Holland, Zuid-Holland and Utrecht less deaths were experienced throughout the first two waves, albeit they were the most densely populated provinces. Lesser impact of the flu was followed by a lower willingness to act. Second, the lack of knowledge contributed to the discrepancies in the policies. Not knowing what they were up against, it was impossible to formulate any decisive measures or policies.

Gut-feelings and subjective opinions shaped the advice given to the city council. Especially in Amsterdam, the unwillingness to act against the virus was mainly due to the fact that the decision-makers believed the measures to worsen the situation. All in all, it can be stated that the discrepancies were due to the different ways the provinces and municipalities in turn were hit by the Spanish Influenza. Dissimilar approaches to repel the flu followed after the different developments of the flu throughout the country.

These results are relevant because existing historical research on the Spanish Influenza in the Netherlands hardly investigated how and why Dutch governments acted during the epidemic. The simplest explanation provided by the literature was that the Dutch government did not act during the Spanish Influenza, because it was too occupied with the revolution of Troelstra at the time. However, the central government was not the only authority that was to enforce measures, especially not regarding the health care, as Van Trigt explained in his contribution to Pots and Randeraad. What this paper has shown is that the local government, specifically the municipalities played an important role in the decisions made against the Spanish Influenza. This finding proved to be relevant because the broader literature tends to oversee the local and regional histories. Municipalities formed the key actor in the battle against the Spanish Influenza, but their actions differed across the Netherlands, because the situation regarding the flu differed throughout the Netherlands. Although, this paper has provided new information about the presence of the flu in the Netherlands, it would be interesting to research the differences of governance by municipalities until the end of the epidemic.

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Nieuwe Haarlemsche Courant
Nieuwe Tilburgsche Courant
Provinciale Drentsche en Asser Courant
Provinciale Noordbrabantsche en 's-Hertogenbossche Courant

Rotterdamsch Nieuwsblad

Twentsche Courant

Twentsch Dagblad Tubantia en Enschedesche Courant

8. List of translations

Association against Charlatanism	<i>De Vereeniging tegen de Kwakzalverij</i>
Association for Holiday Activities	<i>Bond voor Vacantiebezigheid</i>
Central Bureau of Statistics	<i>Centraal Bureau voor Statistiek</i>
Central Health Authority	<i>Centrale Gezondheidsdienst</i>
Central Health Council	<i>Centrale Gezondheidsraad</i>
Central Kitchens	<i>Centrale Keukens</i>
Compulsory Education Law	<i>Leerplicht Wet</i>
Inspector of the Public Health Authority	<i>Inspecteur van de Volksgezondheid</i>
Municipal Health Service	<i>Gemeentelijke Geneeskundige Dienst</i>
National Support Committee	<i>Nationaal Steuncomité</i>
State Public Health Authority	<i>Staatstoezicht op de Volksgezondheid</i>

9. Appendix

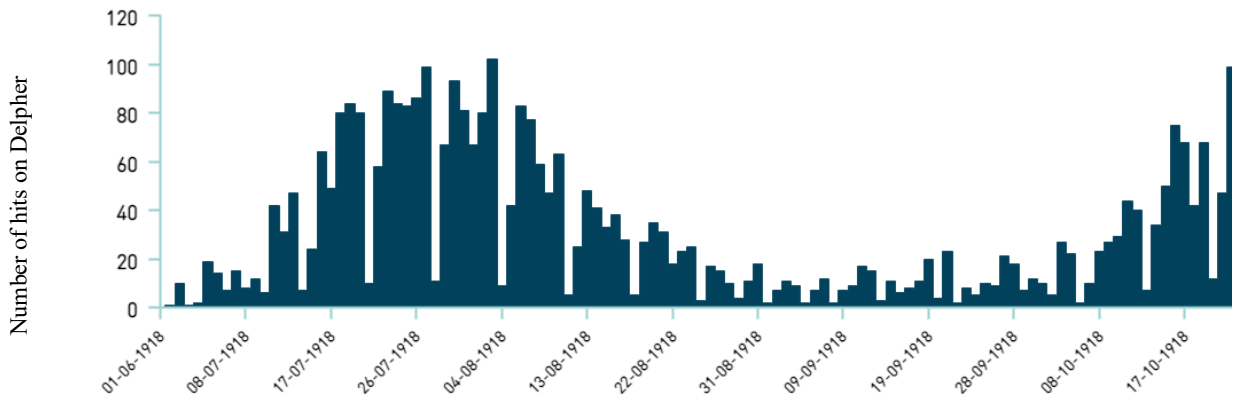


Figure 1 Number of hits on Delpher with the search term 'Spaansche Griep' between June and October 1918.

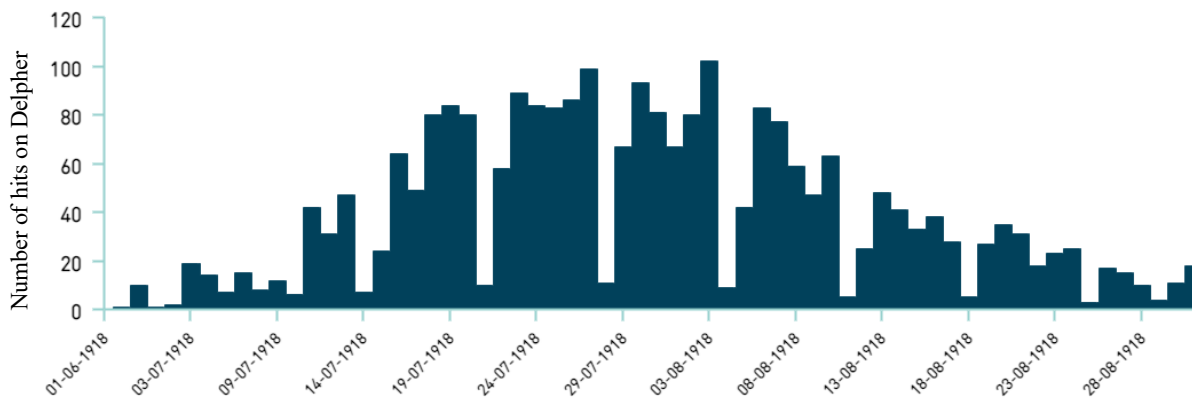
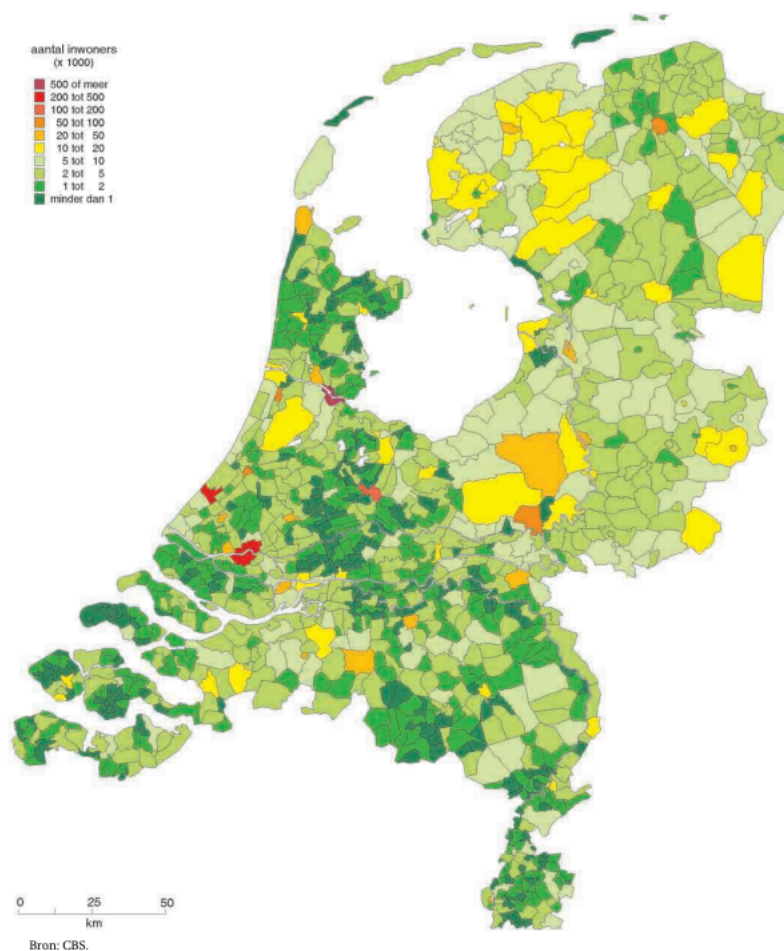


Figure 2 Number of hits on Delpher with the search term 'Spaansche Griep' between June and August 1918.



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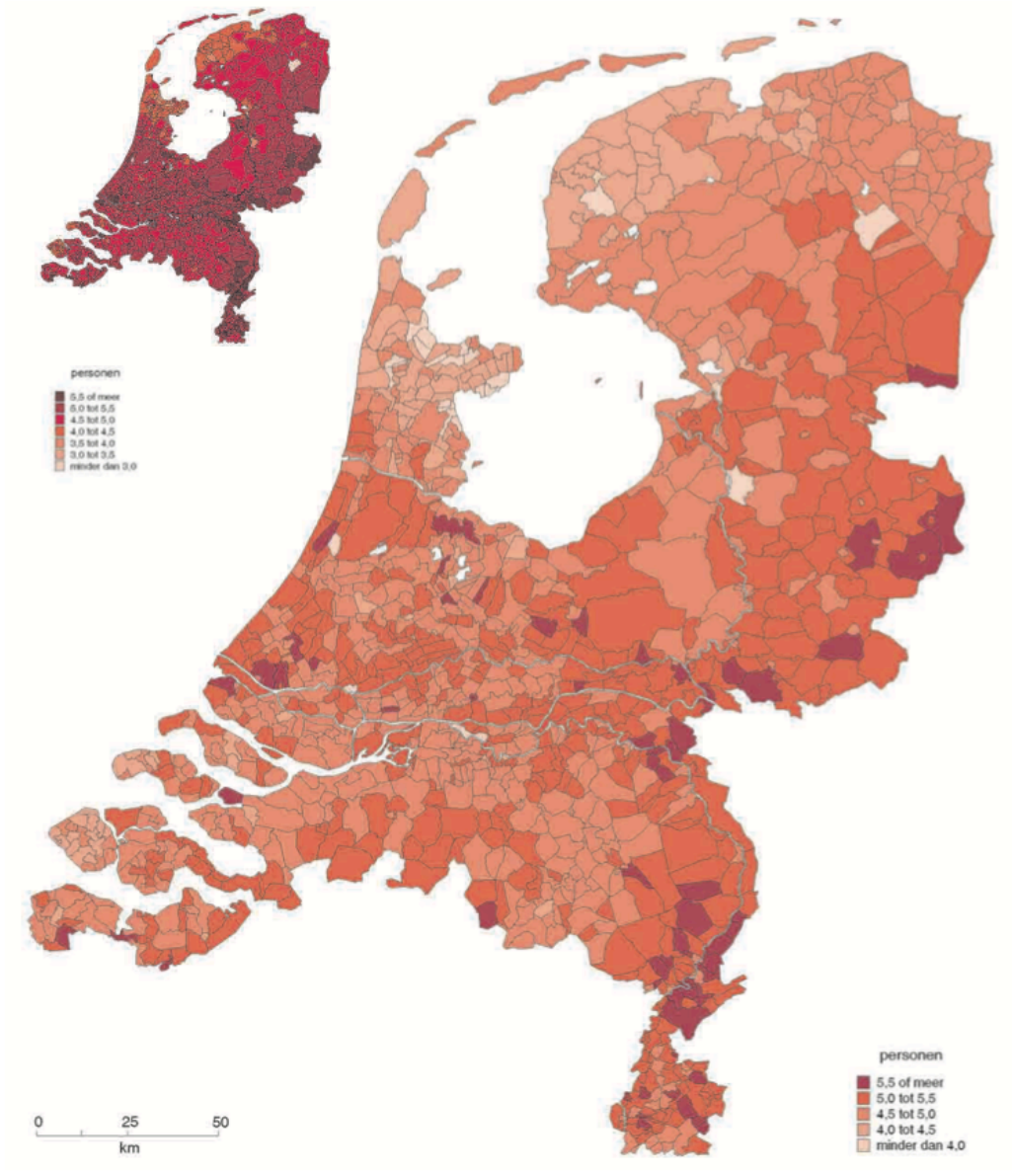
Figure 3 Population per municipality, 1900. Source: Ekamper e.a., Bevolkingsatlas van Nederland, 33.

	1850		1900		1950		2000	
		x 1000		x 1000		x 1000		x 1000
1	Amsterdam	224	Amsterdam	511	Amsterdam	836	Amsterdam	731
2	Rotterdam	90	Rotterdam	319	Rotterdam	676	Rotterdam	593
3	's-Gravenhage	72	's-Gravenhage	206	's-Gravenhage	559	's-Gravenhage	441
4	Utrecht	49	Utrecht	102	Utrecht	193	Utrecht	234
5	Leiden	37	Groningen	67	Haarlem	162	Eindhoven	202
6	Groningen	34	Haarlem	64	Eindhoven	141	Tilburg	193
7	Haarlem	26	Arnhem	57	Groningen	137	Groningen	173
8	Maastricht	25	Leiden	54	Tilburg	120	Breda	161
9	Leeuwarden	24	Nijmegen	43	Nijmegen	111	Apeldoorn	153
10	's-Hertogenbosch	22	Tilburg	41	Enschede	107	Nijmegen	152

Figure 4 Ten most populous municipalities in the Netherlands in 1850, 1900, 1950, and 2000. Source: Ekamper e.a., Bevolkingsatlas van Nederland, 36.

	% Alleenstaanden		Huishoudensgrootte			
			alle huishoudens		meerpersoonshuishoudens	
	1900	2000	1900	2000	1900	2000
Groningen	1,59	18,18	4,43	2,13	4,70	2,85
Friesland	1,53	13,10	4,24	2,35	4,47	2,97
Drenthe	0,82	10,79	4,74	2,41	4,90	2,92
Overijssel	1,25	12,11	4,76	2,44	5,00	3,05
Flevoland		10,02		2,56		3,11
Gelderland	1,29	12,42	4,79	2,40	5,05	3,01
Utrecht	2,09	15,53	4,49	2,28	4,86	2,99
Noord-Holland	2,26	18,77	4,28	2,13	4,64	2,89
Zuid-Holland	2,09	16,34	4,42	2,23	4,78	2,94
Zeeland	1,43	12,41	4,57	2,35	4,82	2,92
Noord-Brabant	1,32	11,71	4,69	2,40	4,95	2,96
Limburg	1,77	12,58	4,83	2,32	5,20	2,88
Nederland	1,75	14,50	4,51	2,29	4,81	2,95

Figure 5 Percentage of singles and the size of a household per province in 1900, and 2000. Source: Ekamper e.a., Bevolkingsatlas van Nederland, 141.



Bron: CBS.

Figure 6 Sizes of multi-person households per municipality in 1900. Source: Ekamper e.a., Bevolkingsatlas van Nederland, 146.