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Faculty of Behavioural, Management and
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Bachelor Thesis

The politicization of EU Crisis Management
A Case Study of the February 2014 Ebola Epidemic

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I. Abstract

This study aims to answer the question to what extent and how did politicization affect the adequacy of crisis management within the European Union concerning the Ebola outbreak in February 2014. Through Realistic Evaluation and Causal Process Tracing mechanisms are detected that influenced the adequacy of crisis management in the European Union. These mechanisms are represented in this study by the variables *level of politicization*, *geopolitical context*, *improvisation from protocols* and *the existence of a coordinating structure*. Through a document analysis of qualitative data it is uncovered that the level of politicization and mediatization surrounding the crisis influenced the crisis communication of the European Commission. Furthermore findings in the study indicate that the existence of an up to date crisis management protocol and a strong coordinating presence have a positive influence on the adequacy of crisis management. In this case the strong geopolitical context increased the level of politicization of the crisis, although no relation could be discovered between the geopolitical context and the adequacy of crisis management. Finally this study did not provide the necessary results to discover a relation between the other variables and improvisation from protocol, neither did it provide the information necessary to discover a relation between improvisation from protocol and the adequacy of crisis management.

Keywords: Ebola Virus Disease, European Union, crisis management, politicization, mediatization, geopolitical context, improvisation from protocol, presence of a coordinating structure

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1. Background

1.1 Introduction to the research object

The concept of globalization has been gaining more attention over the last twenty years in Europe, the United States and almost every other post-industrial country in the world. Whether this is a beneficial or detrimental situation for nations is up for discussion, but globalization definitely provides new challenges for all countries in the world.

Historically with an increase in migration we have seen a surge of disease spreading with the migration. During the Age of Discovery we have seen multiple instances of civilizations being diminished by diseases brought to their homes by European explorers. In the post-industrial world of today where we see a constantly rising globalization and migration level this threat of diseases spreading across continents is revitalized. Over the last twenty years countries have come to face new challenges while trying to contain infectious diseases like BSE—more commonly known as mad cow disease—, SARS and the H1N1/09 virus—the cause of the 2009 pandemic known as the swine flu—. The most recent of these transboundary crises was the Ebola outbreak of February 2014. The outbreak of the disease started in the southeast of Guinea and the virus soon spread through the rest of Guinea as well as Sierra Leone and Liberia.

News of the outbreak soon arrived in western countries and was picked up fast by the media. When, on August 8, 2014 the World Health Organization (WHO) announced the outbreak to be an extraordinary event—and stated that an international response was needed to stop the rapid spread of the virulent disease—a panic reaction started across Europe (World Health Organization, 2014). Historically, outbreaks of infectious diseases used to be crises managed at the national level. However, with the implementation of the decision serious on cross-border threats to health of October 22, 2013 (European Commission, 2013) the European Union has taken up the position as a lead-actor in the world when confronted with transboundary crises. Boin, Busuioc, and Groenleer (2014) argue that with that leadership decision the European Union has increased its management capacity, in terms of relevant skills and resources, to deal with possible cross-border health crises. Pooling skills and resources would make the European Union as an institution more suitable to deal with transboundary crises than each Member State separately.

The Ebola crisis could serve as an excellent opportunity to show that the European Union as an institution can provide a solution for problems emerging with the rise of globalization, through the creation of protocols that arrange the coordination of crisis management between the Member States. Due to the highly perceived threat of the Ebola outbreak it could be the case that a high level of media attention lead to a politicized environment for the management of the crisis. Boin (2005) states that politicization is caused by an increase in specific meaning-making by the media, leading to an increased sense of urgency for citizens who in turn call out for the government to deal with the crisis. It is assumed by Boin and Hart (2000) that in most crises politicization will increase the difficulty of adequate crisis management. If this crisis was the generic outbreak of a highly contagious, communicable disease the easiest option, first, would have been to make a cure available for all infected people. Subsequently, a further control of the disease would include quarantines and preventive measures. However, for the outbreak of Ebola—a disease without a known and commonly available cure—the first and easiest option was not available, thus leaving only quarantines and preventive measures as countermeasures to the outbreak of the disease. The absence of a cure put a high strain on decision-making and was a defining characteristic of the crisis, similar to earlier outbreaks of HIV or the swine flu. Because this outbreak was the first case of a haemorrhagic virus threatening to spread to Europe the exceptional character of the situation may have led crisis managers to improvise from the existing protocols, in order to deal with the crisis. Gilpin and Murphy (2008) argue that improvisation from crisis protocols has a positive impact on the adequacy of crisis management.

The present bachelor thesis aims to test the relation of different mechanisms on the adequacy of crisis management. The focus of this bachelor thesis lies mainly on the mechanisms *level of politicization, geopolitical context, improvisation from protocols and the existence of a coordinating structure*.

1.2 Research question

In the present study one main research question was formulated: “To what extent and how did politicization affect the adequacy of crisis management within the European Union concerning the Ebola outbreak in February 2014?” More in-depth this research tries to answer three sub-questions: How did (a) the level of improvisation from protocols, (b) the existence of a coordinating structure and (c) the geopolitical context affect the relation between politicization and adequacy of crisis management?

1.3 Scientific and social relevance

Over the years a lot of research has been done on the adequacy of crisis management in western countries, and with the rise of the European Union as active lead actor and crisis manager there is now also plenty of research done on the coordinating effects of the European Union in crisis management. For example Blockmans and Wessel (2009), Hynek (2011) and Duke (2002) have all done research on the coordinating effects of the European Union in crisis management. Blockmans and Wessel (2009) focus on the general effectiveness of the Lisbon Treaty on crisis management in the European Union, while Duke (2002) directs his research more on the development of crisis management in the European Union throughout history. For this research the study by Hynek (2011) is the least relevant although it is the most recent of the three. Hynek (2011) specifically studies the civil-military coordination while this research has no interest in the military coordination within the European Union.

The field of public health crises, however, has recently not been strongly covered by academic research in crisis management. While conducting an orientating literature review on the impact of the 2013 European Union decision on the management of public health crises only very few retrieved articles are found. This lack of results is surprising as one of the major reasons for this EU legislation was to tackle transboundary public health crises in the most efficient way possible, with the European Union as coordinator between the different Member States. Before 2013 there has been research done on the type of strategy the European Union should follow to combat communicable diseases (Amato-Gauci and Ammon (2008), but after the entry of the decision on serious cross border threats in 2013 there has been no evaluation of the EU strategy to combat serious cross-border health threats from the EU level instead of on a national level.

With the rise of the amount of transboundary crises over the past decades and the prediction that transboundary crises will happen much more frequently in the future, there is a strong need for research on how to adequately deal with such crises (Boin et al., 2014). Although some scholars believe there is no way to manage the transboundary crises directly and that instead there should be a stronger focus on managing the societal side of a crisis to deal with transboundary crises in an adequate fashion (Boin et al., 2014). I assume that it is possible to find a way to set up best practices for managing transboundary crises. Especially since the introduction of the European decision on serious cross-border threats to health, multiple coordinating tasks for crisis on communicable diseases have been transferred to the European

Union. With the transference of these tasks to the European Union it should make transboundary crises more manageable (Boin et al., 2014).

For the present bachelor thesis it would be too much to include a comparison of multiple cases of transboundary crises to find a best practice. Therefore, the choice was made focus on one exemplary case. With this case study I would primarily like to test whether or not a transfer of responsibilities to the European Union has proven to be a good decision. The case I analyze is the crisis in the European Union following the Ebola outbreak of February 2014. With that case study analysis I hope to fill the gap in research surrounding the power of the European Union as the lead actor in cross-border threats to health. This could be relevant from a societal perspective to show or illustrate that a transfer of powers to the European Union has provided the Member States of the European Union with new possibilities. If this would be the case, it could make a contribution to the recent Eurosceptism debate.

2. Theory and concepts

Before addressing the research question, I present a clear theoretical framework for understanding the core variables and mechanisms in transboundary crisis management. From this framework, I construct a causal diagram that will be used to construct the main hypotheses that guide an answer the research question.

2.1 Dependent variable

The dependent variable which the research revolves around is the adequacy of crisis management. According to Boin (2005) a crisis is adequately managed if the following six processes have been adequately dealt with: (1) preparation, (2) recognition and signaling of crisis, (3) provision of information within crisis organization, (4) analysis, judgment, and preparation of decision-making, (5) decision-making and steering, (6) crisis communication, these are the same dimensions as used by the Inspectie Veiligheid en Justitie (2012) in their *toetsingskader rijkscrisisstructuur*.

To make more sense of this definition I will further explain all six parts separately using the definitions used by Torenvlied et al. (2015) in their evaluation report on the MH-17 disaster. With preparation we refer to the actions taken before a crisis happens with the main focus on

who gets which tasks when a crisis occurs. The recognition and signaling of a crisis focusses on the early spotting of a crisis so the authorities in charge of dealing with that crisis can be properly and timely informed. When we talk about the provision of information we solely focus on the information collecting and sharing within the crisis management organizations. This is of vital importance to ensure all the actors involved are up to date and able to make decisions based on the most recent information. The analysis, judgment and preparation of decision-making is to create a condensed version of the crisis and the effects it might have on society, to properly do this it is necessary to create scenarios. These scenarios can be used during the fifth part of crisis management which is the decision-making and steering of the crisis. During the decision-making and steering process the main focus is on the management team taking control of the crisis management and setting a course to follow to deal with the crisis. The final dimension of adequate crisis management is crisis communication, this is not the communication within the crisis management but mostly with the directly affected and when needed with the society as a whole.

2.2 Hypotheses

2.2.1 Hypothesis 1: The effect of the Level of politicization

When confronted with a crisis an easy solution for decision-makers would be to try and hide the crisis from the world and more specifically the media. However in cases of transnational or international crises this will be impossible especially if the crisis is the target of politicization and mediatization (Rosenthal, Boin, & Comfort, 2001). This brings us to the first and most important of the independent variables, the level of politicization. According to Dekker and Hansén (2004) an issue is regarded as “politicized” when it becomes subject to heightened political attention, which takes form in parliamentary questioning, hearings, debates, and inquiries. Politicization is closely linked to the previously mentioned mediatization—the focus of main stream media on a specific problem (Mazzoleni & Schulz, 1999). For the political attention needed to create politicization there has to be a disagreement between at least two political actors, if there were no disagreement there would be no need for politicization as the crisis solution would be unanimously agreed upon. The political disagreement needed for the politicization would according to Broekema (2015) need to concerned with the framing of at least one of the following four factors; the course of the events, the underlying causes and effects, responsibility and accountability and learning. Mediatization puts a burden on decision-makers to reduce the negative consequences of a crisis on its citizens. If the negative

consequences of a crisis would manifest itself to the population, the media have the possibility to frame the crisis as a blame game with the main goal of keeping the elected politicians accountable for their actions (Hood, 2002). When looking at the effect of politicization on the adequacy of crisis management the research by Boin and Hart (2000) clearly indicates that high levels of politicization hinder adequate crisis management when dealing with transnational or international crises. For the European Union specifically it is assumed that a high level of politicization combined with the pressure which decision-makers face from their population through mediatization has an increasing negative effect on the adequacy of crisis management. In the causal model this is shown as the level of politicization having a negative impact on adequacy of crisis management. This is represented in the first hypothesis.

H1: Politicization of a crisis leads to less adequate crisis management.

2.2.2 Hypotheses 2 and 3: The effect of the Geopolitical Context

As already mentioned above, the level mediatization and politicization are influenced by the geopolitical context. This geopolitical context can be defined as the level of impact this crisis has on a geopolitical scale, if neighboring countries feel threatened by the current crisis they will become invested in the management of the crisis. The threat neighboring countries perceive is increased if there is no sufficient recognition and signaling of a crisis and crisis communication. In this case for example, other countries outside of the European Union do not want the disease to spread to their territory, this will lead to a rise in pressure on the European Union to adequately deal with the crisis. This pressure politicizes the crisis even more and at the same time makes adequate crisis management more difficult because of the rising level of actors. In the causal model this is represented in a way that geopolitical context has a positive influence on the level of politicization and a negative influence on the adequacy of crisis management. This is represented in the second and third hypotheses.

H2: The geopolitical context of a crisis leads to politicization.

H3: Dominance of the geopolitical context leads to a less adequate crisis management.

2.2.3 Hypothesis 4: The effect of the level of improvisation from protocols

As a third variable for this research we will use the level of improvisation from protocols. Protocols, a set of rules or guidelines, are put in place to ensure the coordinated actions of an organization during a crisis, they make sure that every member of the organization knows exactly what actions to take. When there is improvisation from the protocol this means that certain parts of the organization take actions outside of the protocol. When during a crisis the adequate management of this crisis is a combined effort of multiple different organizations and governments it is of vital importance that there is an adherence to the protocols put in place to make sure each organization takes care of its responsibilities (Christensen, Andreas Danielsen, LÆGreid, & H. Rykkja, 2015). Torenvlied et al. (2015) reconfirm this theory and state that the following of protocols can have a positive effect on the adequacy by decreasing the chaos during moments where timely decisions are essential. This could also provide legitimization for the organization in charge. On the other hand Gilpin and Murphy (2008) state that during a crisis protocols can act hindering due to the fast changing status of the crisis, as well as the fact that a crisis might not even have a fitting protocol yet. However as the protocols put in place to deal with transboundary health crises were recently updated for this particular case. Thus for the Ebola outbreak of February 2014 it is assumed that the following of the existing protocols had a positive effect on the adequacy of crisis which is rephrased into the following hypothesis.

H4: Improvisation from protocols during a crisis hinders the chances for adequate crisis management.

2.2.4 Hypotheses 5 and 6: The effect of the presence of a coordination structure

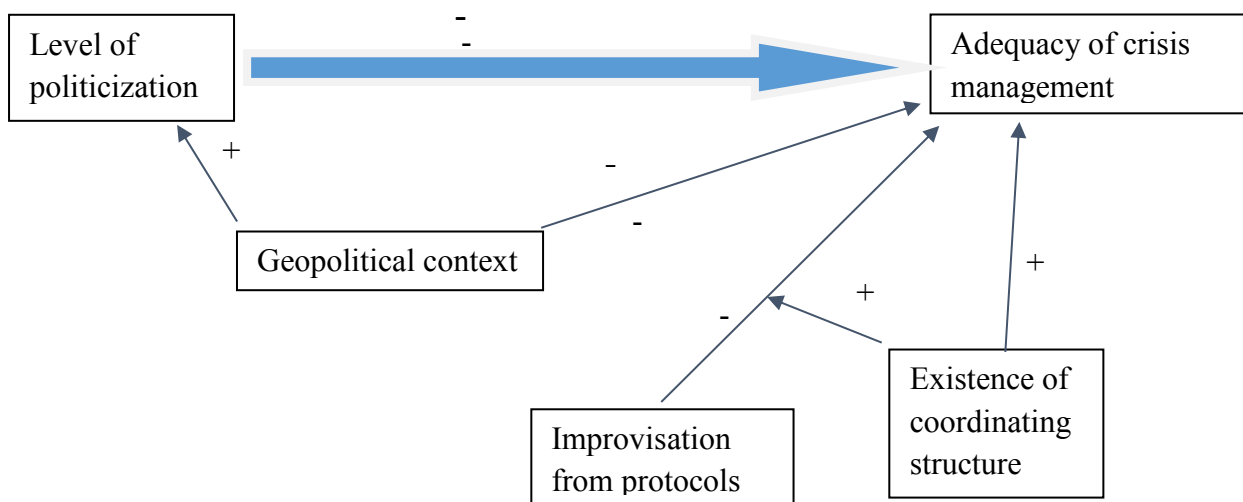
The fourth and final independent variable is the presence of a coordinating structure. When social science research refers to a coordinating structure, scholars make a distinction between hierarchical and non-hierarchical coordination (Christensen et al., 2015). The European Union has had a history of network or governance approaches, which are non-hierarchical, to handling crises but more recently they have started using a hierarchical lead-agency model more frequently (Boin et al., 2014). Since the focus of this research will be on a recent transboundary crisis in the European Union we will assume that the coordinating structure present was a hierarchical one. Christensen et al. (2015) cautiously state that the presence of a coordinating structure can have a positive impact on the perception of the adequacy of crisis management. At the same time Gilpin and Murphy (2008) argue that the presence of a coordinating structure has a positive impact on the relationship between improvisation from protocol and the adequacy

of crisis management. For the causal model this means that the presence of a coordinating structure increases the strength of the effect of improvisation from protocol on the adequacy on crisis management. This leads to the following two hypotheses.

H5: Presence of a coordinating structure leads to more adequate improvisation.

H6: Presence of a coordinating structure leads to more adequate crisis management.

2.3 Causal model



3. Methodology

Within this section of the thesis will be an explanation of the methodology used. First the research design will be presented, followed by the case selection, operationalization, threats to validity and a description of the way of analysis of the data.

3.1 Research Design

This study will be a single case study of a critical case using the Causal Process Tracing (CPT) approach. The choice for a case study is based on the statement by Yin (2003) who states that a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. Adding to this argument Pawson and Tilley (1997) state that for theory development to take place, both the mechanisms and the context are relevant. Since during most crises there is no clear line separating phenomena and context it seems that investigating the

mechanisms at hand is most easily done by including the context, which means a case study is the most optimal choice. According to Blatter and Haverland (2012) CPT is the most suitable approach to be able to draw inferences on the dynamic processes of a single case study, this is mainly because CPT has the aim to create a comprehensive storyline (Blatter & Haverland, 2012) which reveals stakeholder involvement and the decisive events of the case. This should lead to a causal narrative that correctly represents the causal chain of the case. Blatter and Haverland (2012) state that the main characteristic of CPT is that the causal model is created by linking core observations, also called smoking guns, and deeper insights, referred to as confessions (Blatter & Haverland, 2012). In addition to CPT the approach of realistic evaluation is used, according to the definition by Pawson and Tilley (1997) a realistic evaluation creates an opportunity for the researcher to observe specific mechanics in the context of the study. For this case study the specific mechanisms are the variables that cause the outcome of the adequacy of crisis management. The use of realistic evaluation in this case is that it provides results that future researchers can use when analyzing the effect of politicization on the adequacy of crisis management. This could be especially interesting if the mechanisms at hand act contradictory to the used theories as these mechanisms are observed in a real life context.

3.2 Case Selection and sampling

The case of the February 2014 Ebola outbreak is relevant as a case to study in the context of adequacy of crisis management as it could serve as an example of a new way of managing transboundary health crises in Europe. It is an exemplary case as it was the first health crisis since the introduction of new legislation on combatting cross border health issues in 2013, making it the first test for the new legislation and the coordinated European response. Another point which justifies this crisis as an interesting case to study is the fact that due to the extremely high case-fatality rate of the disease (Dixon & Schafer, 2014) there was a lot of attention in both social and the mainstream media concerning the management of this crisis which could possibly lead to high rates of politicization. A final criterion for choosing this specific case is the fact that there is a lot of empirical data publicly available, this is of vital importance to be able to try and understand the perceptions and motivations of the actors involved in this crisis (Blatter & Haverland, 2012). It is important to note that this study will specifically focus on the actions of the European Union as a whole instead of the separate Member States.

3.3 Operationalization and Data collection

To be able to study the mechanisms that influence the relation between the independent variables *level of politicization, geopolitical context, improvisation from protocols and the*

existence of a coordinating structure, and the dependent variable *adequacy of crisis management*, only qualitative data will be used.

3.3.1 Adequacy of crisis management

As mentioned above the adequacy of crisis management can be measured on six dimensions (Inspectie Veiligheid en Justitie, 2012). By using the data available to create a representation of the facts it should be possible to draw conclusions on whether or not these six dimensions are fulfilled. However there might be constraints to the level of information that is publicly available and getting official access to the data would be beyond the scope of this thesis, this could result in not obtaining satisfying conclusions on the two dimensions, decision-making and steering and provision of information within crisis organization.

3.3.2 Level of politicization

As there is no common agreement on the definition and measurement of politicization it might be difficult to measure the level of politicization. For this research it would make the most sense to look at the level of mediatization as an indicator of politicization, the way to evaluate this level is by the salience approach which assumes that the more important a subject is, the more attention it will get. This can be measured by looking at the amount of press releases by the European Union and the content of these press releases. When these press releases get linked to the most important moments in the crisis management and the sentiment of the media on this crisis this should show an approximation of the level of mediatization. This level of mediatization will then be used as the main indicator for the level of politicization in this crisis.

3.3.3 Geopolitical context

The scope of this research involves the entire European Union as a subject, which could lead to the assumption that there already is a geopolitical context for this case. However to measure how strong the geopolitical context is this research will analyze the official statements from international organizations. This way of analysis should provide a clear cut reasoning to present the level of geopolitical implications for this crisis. A high level of geopolitical implications should ideally indicate that the management of the crisis is more adequate than it would be with a lower level of geopolitical pressure.

3.3.4 Improvisation from protocol

To be able to measure improvisation from protocol, there first has to be a consensus on which protocols are applicable for this case. This research will use Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to

health (European Commission, 2013) as the protocols which define the actions to be taken by the European Union. Whether or not all steps to be taken according to the protocols were actually taken will define the level of improvisation from protocol.

3.3.5 Existence of a coordinating structure

The variable concerning the existence of a coordinating structure will be used as a dummy explanatory variable. This research will only measure whether or not a coordinating structure was present during the crisis, this might have implications for the improvisation from protocol as well as the adequacy of crisis management. For the European Union a coordinating structure would be a committee helping each Member State to prepare, act and communicate in a similar fashion to create one common approach.

3.4 Threats to validity

Due to the nature of this research design there may be concerns regarding the validity of this research, especially the external validity of a case study is in most cases limited. By using CPT it may be possible to create a causal path that can be applied to more than just this case under certain circumstances (Blatter & Haverland, 2012). The internal validity of this research could be questioned as well since could possibly be very hard to indicate a strong relationship between the independent variables and the dependent variable. However in this case I will not aim to search for a single cause-effect relationship, but aim to discover through CPT a set of variables that together through interaction can result in a specific outcome. For this cause CPT is a good qualitative research method to ensure internal validity (Blatter & Haverland, 2012). By using proper operationalization of each of the constructs it should be possible to create a decent level of criterion validity and through proper case selection the threat of a lack of content validity will be minimized as well. There should not be a bias because of the possibly opinionated articles used in the research as this research is not focusing on shifting the blame to one of the actors involved, but rather at the effect of the mechanisms at work.

3.5 Data Analysis

Through combining the observations obtained from both the case description and the analysis of the case it should be possible to draw causal inferences on the mechanisms that lie at the foundation of adequate crisis management. This study will also study the effects some variables have on the mechanisms of other variables used in this case, in particular the effect of geopolitical context on politicization and the effect of a coordinating structure on improvisation

from protocol. Because all data in this case study are of a qualitative kind it is best suited to use causal inference to create a systematic storyline.

4. Case description

4.1 Ebola virus disease

4.1.1 History and pathology of Ebola virus disease

The Ebola virus disease (EVD), also referred to as Ebola hemorrhagic fever (EHF), is a disease caused by infection with one of the four known Ebola viruses. All four of these viruses originate from Africa. The first type was discovered in 1976, near the Ebola River in the Democratic Republic of the Congo. Although it is unclear what species hosted the virus at first, it is assumed that the virus is animal-borne and most likely to occur in bats (Center for Disease Control and Prevention, 2016a). The virus is spread most commonly through direct contact of blood and body fluids with broken skin or mucous membranes, although it can also be obtained by consuming infected bats or primates (Center for Disease Control and Prevention, 2015a). In total there have been 35 outbreaks, of which all outbreaks occurring outside of laboratories originated from African countries.

Of the four virus types causing Ebola Virus Disease (EVD) the most frequently occurring in outbreaks is the Zaire Ebolavirus (ZEV). Out of the 20 outbreaks that occurred outside laboratories, 13 were ZEV infections. Table one lists each individual ZEV outbreak that occurred before the March 2014 outbreak. However when comparing these outbreak to the March 2014 outbreak it has to be made clear that the outbreak of March 2014 was the biggest outbreak of EVD since the discovery of the disease as well as the most threatening outbreak due to its unprecedented size, geographical distribution and clusters in densely populated urban areas (Center for Disease Control and Prevention, 2016b; European Centre for Disease Prevention and Control, 2014g).

Year	Country	Reported number of human cases	Reported number (%) of deaths among cases
1976	Zaire	318	280 (88%)
1994	Gabon	52	31 (60%)
1995	Democratic Republic of the Congo (DROC)	315	250 (81%)
1996-1997 (July-January)	Gabon	60	45 (74%)
2001-2002 (October-March)	Gabon	65	53 (82%)
2001-2002 (October-March)	Republic of the Congo(ROC)	57	43 (75%)
2002-2003 (December-April)	ROC	143	128 (89%)
2003 (November-December)	ROC	35	29 (83%)
2007	DROC	264	187 (71%)
2008-2009 (December-February)	DROC	32	15 (47%)

Table 1: EVD outbreaks originating from the Zaire ebolavirus (Center for Disease Control and Prevention, 2016b)

The European Centre for Disease Prevention and Control (2014b) gives a clear summary of the pathology of EVD, because this study assumes the European standpoint towards EVD it will use the definition used in their Rapid Risk Assessment of April 8, 2014.

The onset of EVD is sudden and early symptoms include flu-like illness, fever, muscle pain (myalgia), fatigue (weakness), headache and sore throat. The next stage of the disease is characterized by symptoms and clinical manifestations from several organ systems. Symptoms can be gastrointestinal (vomiting, diarrhea, anorexia and abdominal pain), neurological (headaches, confusion), vascular (conjunctival/pharyngeal injections), cutaneous (maculopapular rash), and respiratory (cough, chest pain, shortness of breath), and can include complete exhaustion (prostration). During the first week, patients often deteriorate suddenly, while diarrhoea and vomiting are getting worse. All of these symptoms correspond to the prodromal phase of EVD. After one week, haemorrhagic manifestations can appear in more than half of the patients (bloody diarrhoea, nosebleeds, haematemesis, petechiae, ecchymosis and puncture bleedings). Some patients develop profuse internal and external haemorrhages and disseminated intravascular coagulation. Patients in the final stage of disease die in the clinical picture of tachypnoea, anuria, hypovolemic shock and multi-organ failure (European Centre for Disease Prevention and Control, 2014b).

4.1.2 Diagnosis and treatment

Ebola Virus Disease is a difficult disease to diagnose in the early stages of the disease due to the nonspecific symptoms such as fever, headaches, muscle pain, diarrhea and vomiting (Center for Disease Control and Prevention, 2014). Adding to this there is a large time period in which the first symptoms might appear, this makes it a difficult task to contain the outbreak due to people being unaware of their infection. The most common way to connect the symptoms to the disease in an early stage is to check the patient for contact with bats, primates and blood or body fluids from an infected person (Center for Disease Control and Prevention, 2015a). It may take up to three days after the start of the symptoms to be able to detect the virus in blood samples through diagnostic tests. Once unexplained hemorrhages appear on the body of the patient it is also possible to diagnose EVD without diagnostically testing blood samples (Center for Disease Control and Prevention, 2015a).

As there currently is no approved vaccine or antiviral drug available for EVD, it is impossible to directly treat the disease. Treatment for the disease is done by basic interventions to combat the symptoms that occur. The three most common interventions that improve chances of survival are providing IV fluids and balancing electrolytes, maintaining oxygen status and blood pressure and treating any additional infections that might occur. With good supportive care and a strong immune response from the patient it is possible to recover from the disease. Recovered patients will develop antibodies against EVD for the following ten years, however it is unclear if this leads to immunity for life as well as infections from other Ebola virus species (Center for Disease Control and Prevention, 2015b).

4.2 Timeline of the crisis

4.2.1 From patient zero to the first confirmation of an outbreak: December 28, 2013 to March 22, 2014

There are until this day still many things uncertain about the patient zero of the March 2014 EVD outbreak and the following crisis, but most sources agree that the first infection occurred in a two year old child in the town of Guéckédou in Guinea on December 28, 2013 (European Centre for Disease Prevention and Control, 2014c). It is assumed that the child got the infection from the consumption of infected bush meat, most likely a primate or bat. The disease soon spreads to the rest of the family, becoming fatal to each of them. At the following funeral the disease spreads to mourners attending the funeral, as local rituals surrounding funerals contain physical contact with the deceased. From here the disease spreads to neighboring villages and

soon across the borders to both Liberia and Sierra Leone (European Centre for Disease Prevention and Control, 2014b).

4.2.2 The growth from a minor outbreak to a public health emergency of international concern: March 23 to August 8, 2014

On March 22, 2014 the Guinean government reports that the disease has been diagnosed as EVD and has already killed 59 people in Guinea alone, a day later the World Health Organization (WHO) is notified by the government of the rapidly evolving EVD outbreak. There are indications that by then the disease has already spread to both Liberia, confirmed on March 28, 2014, and Sierra Leone, as confirmed by the WHO on May 26, 2014. The Ministry of Health of Guinea reports on April 7, 2014 that they have identified a total of 151 cases of EVD of which 95 became fatal to the patient (European Centre for Disease Prevention and Control, 2014b). An increasing amount of new patients are healthcare workers in direct contact with EVD patients. Because of the rapid spread of EVD in Guinea, Sierra Leone and Liberia the governments of the three countries activate their national emergency committees and prepared response plans. Through the process of active case-finding, contact tracing and isolation of symptomatic patients the outbreak was initially controlled as only several new cases were reported in week 14 of 2014. During week 22 this proved to be only temporary as new cases were reported from previously unaffected areas of Guinea as well as from Sierra Leone. Soon after diagnostic test confirmed that all new cases were linked to the transmission chains that started the initial outbreak. On July 25, 2015 the first patient outside of Guinea, Sierra Leone and Liberia was reported, a forty year old Liberian travelled by plane to Lagos, Nigeria while already expressing symptoms prior to his departure (European Centre for Disease Prevention and Control, 2014c, 2014d).

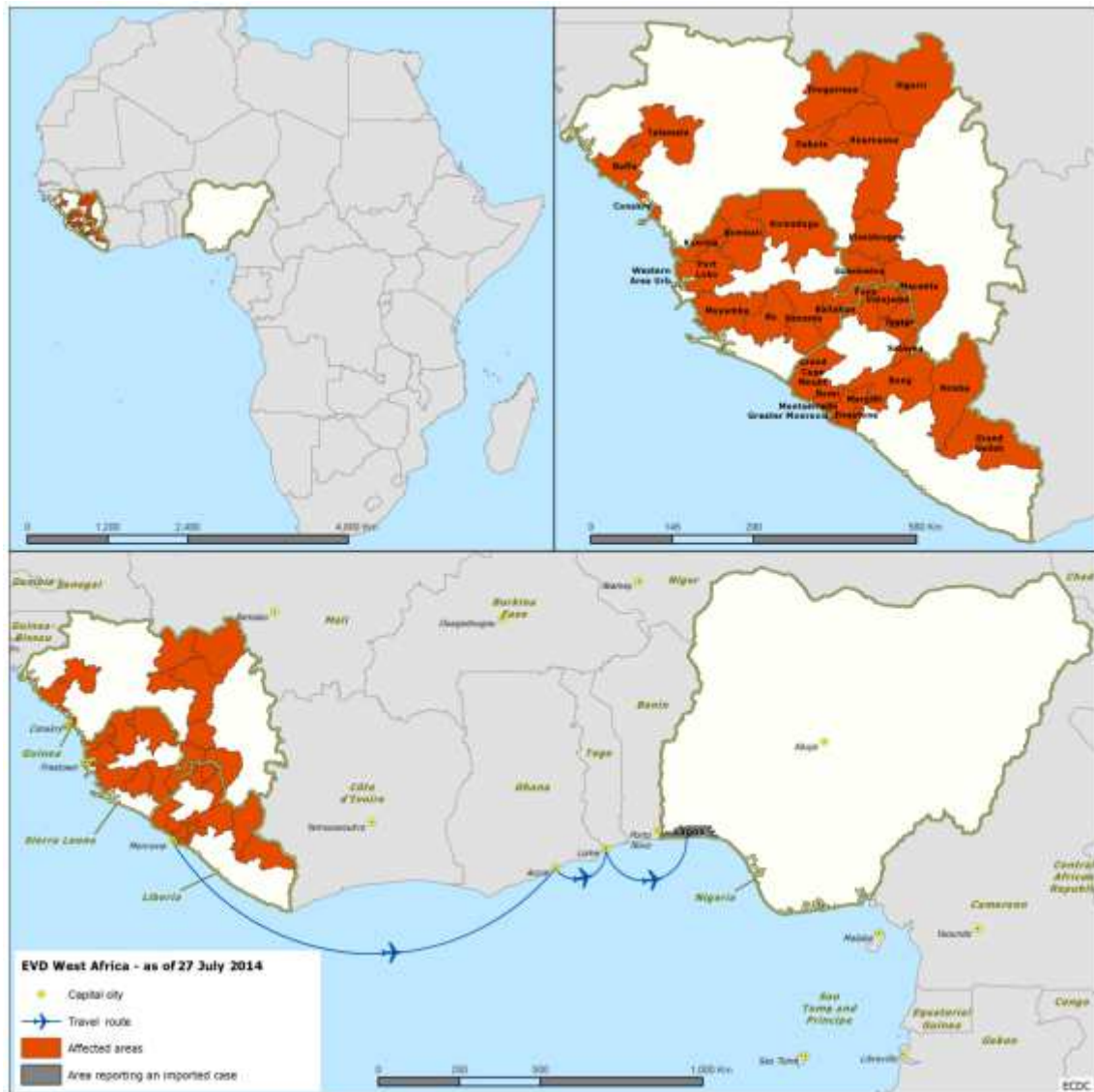


Figure 1: EVD affected areas in West Africa as of 2014 (European Centre for Disease Prevention and Control, 2014d).

The spread of EVD among healthcare workers starts posed a serious threat to the containment of the outbreak. The number of infected healthcare workers kept rising throughout July 2014. The threat that the outbreak would spread even outside of West-Africa rose, as foreign healthcare workers contracted EVD while performing their job, of which two Americans and one Ugandan. Local healthcare workers, who required assistance with the constantly spreading outbreak, started to receive such assistance from international organizations like World Health Organization, UNICEF and Médecins Sans Frontières (MSF). In addition, EU-funded EVD treatment centers were established in the affected areas. The idea was to contain the disease and prevent the occurrence of new outbreaks as it became clear that this EVD outbreak could not be contained by the governments of Guinea, Sierra Leone and Liberia alone (European Centre for Disease Prevention and Control, 2014d). Due to its unprecedented size, geographical

distribution and clusters in densely populated urban areas World Health Organization decides to declare the outbreak a Public Health Event of International Concern (PHEIC) on August 8, 2014 (European Centre for Disease Prevention and Control, 2014g).

4.2.3 A threat to international peace and security: August 8 to November 15, 2014

The single case of the Liberian who travelled to Nigeria on July 20, 2014 led to the creation of tertiary clusters in multiple areas throughout Nigeria, most recently in Port Harcourt, making Nigeria the fourth country with multiple clusters of EVD infections in the current outbreak. On August 29, 2014 the Ministry of Health in Senegal reports that they also have a first confirmed case of EVD. This patient travelled from Guinea to Senegal after being in close contact with an Ebola patient in Guinea, after arrival in Senegal the patient was hospitalized and isolated immediately. The Ministry also reports that no further cases have been reported and they have contained the disease (European Centre for Disease Prevention and Control, 2014g).

The World Health Organization (WHO) stated that they believe that the outbreak has thus far been grossly underestimated in all official reports and figures. They also report that the health system and epidemiological surveillance of the affected countries are struggling to keep up with the rapid developments and hundreds of healthcare workers have become infected and died since the initial outbreak (European Centre for Disease Prevention and Control, 2014g). The outbreak was still growing rapidly. Numbers provided by the World Health Organization indicate that close to 40 percent of all cases have occurred in the last three weeks of August 2014. Most of these cases are concentrated in the border area between Guinea, Liberia and Sierra Leone (European Centre for Disease Prevention and Control, 2014g). The gravest concern at this moment is the transmission of EVD in the capital cities of Guinea, Liberia and Sierra Leone, as they form a severe threat to travel and trade both within and outside of the region.

An EVD genomic study conducted in Sierra Leone concluded that the virus was changing relatively quickly, about twice as fast as observed in previous outbreaks, both intra-host and inter-host. These changes within the virus could have potentially lead to difficulties in diagnosing EVD. Thus, diagnostic tests had to be adjusted to be able to detect all variations of the virus strains (European Centre for Disease Prevention and Control, 2014g).

On September 18, 2014 the United Nations Security Council (UNSC) stated that they perceived the EVD outbreak as a threat to international peace and security. The security council adopted a resolution to establish an UN-wide initiative which directs the focus of all relevant UN

agencies to resolving the crisis, a rare decision as it has only happened once before (European Centre for Disease Prevention and Control, 2014f). The WHO Ebola response team published on September 23, 2014 that they predict that by the beginning of November the number of cases will be over 20.000 spread across the three affected countries. Additionally they predicted the epidemic to double within thirty days for Guinea, Liberia and Sierra Leone.

Date of evacuation	Evacuated from	Evacuated to	Profession	Status	Confirmed	Citizenship
02 August 2014	Liberia	Atlanta (USA)	Healthcare worker	Discharged	Yes	USA
05 August 2014	Liberia	Atlanta (USA)	Healthcare worker	Discharged	Yes	USA
06 August 2014	Liberia	Madrid (Spain)	Healthcare worker	Death	Yes	Spain
24 August 2014	Sierra Leone	London (United Kingdom)	Healthcare worker	Discharged	Yes	UK
27 August 2014	Sierra Leone	Hamburg (Germany)	Epidemiologist	Recovered	Yes	Senegal
04 September 2014	Monrovia, Liberia	Omaha (USA)	Physician (obstetrician)	Discharged	Yes	USA
09 September 2014	Kenema, Sierra Leone	Atlanta (USA)	Physician	Discharged	Yes	USA
14 September 2014	Sierra Leone	Leiden (the Netherlands)	Healthcare worker	Discharged	No	the Netherlands
14 September 2014	Sierra Leone	Leiden (the Netherlands)	Healthcare worker	Discharged	No	the Netherlands
19 September 2014	Liberia	Paris (France)	Healthcare worker	Discharged	Yes	France
22 September 2014	Sierra Leone	Madrid (Spain)	Healthcare worker	Death	Yes	Spain
22 September 2014	Sierra Leone	Lausanne (Switzerland)	Healthcare worker	Admitted	Unknown	Non-Swiss
28 September 2014	Sierra Leone	Maryland (USA)	Healthcare worker	Admitted	Unknown	USA
02 October 2014	Sierra Leone	Frankfurt (Germany)	Healthcare worker	Stable	Yes	Uganda
02 October 2014	Liberia	Omaha (USA)	Cameraman	Discharged	Yes	USA
06 October 2014	Sierra Leone	Oslo (Norway)	Healthcare worker	Discharged	Yes	Norway
08 October 2014	Liberia	Leipzig (Germany)	Laboratory worker	Death	Yes	Sudan
01 November 2014	Sierra Leone	Paris (France)	UN worker	Unknown	Yes	Sierra Leone
15 November 2014	Sierra Leone	Nebraska (USA)	Healthcare worker	Death	Yes	USA

Table 2: Medical evacuations from EVD-affected countries until November 15, 2014(European Centre for Disease Prevention and Control, 2014h).

From the beginning of August 2014 there were multiple medical evacuations from EVD-affected countries. However, on September 30, 2014 the United States Centers for Disease Control and Prevention (CDC) announced that they had a patient that was directly linked to the EVD outbreak in West Africa. On October 6, 2014 the Spanish government also announced that they confirmed to have a case of EVD linked to the original outbreak. Several days later the CDC announced that two healthcare workers tending to the first EVD patient have also been infected with the disease. On October 23, 2014 a new cluster of EVD was reported in the United States. The U.S. patient was a healthcare worker who recently returned to New York City after volunteering in Guinea (European Centre for Disease Prevention and Control, 2014h). These recent cases showed that, even though there were procedures in place to prevent the spread of the disease, it was still a realistic possibility that EVD would spread to the European Union (European Centre for Disease Prevention and Control, 2014g).

4.2.4 Containment of EVD and decline in cases: November 15, 2014 to January 14, 2016

After the isolation and treatment of existing cases in the United States, Spain, and Scotland EVD was contained in the Western countries by January 24, 2015. No new cases were reported, and the World Health Organization declared these countries to be officially Ebola-free (European Centre for Disease Prevention and Control, 2015). In January 2015 a statement from the World Health Organization was released stating that the previously assessed risks posed to Europe were lower than expected due to the decrease in cases in West Africa, however the risk reduction measures would remain unchanged because of the possibility of EU citizens travelling to the affected countries (European Centre for Disease Prevention and Control, 2015).

The World Health Organization reported that during the month November of 2014 eight cases of EVD had been reported in Mali. At the same time no new cases were reported outside of Guinea, Liberia, Mali and Sierra Leone. During the same time the weekly incidence in Guinea appeared to be stable, while Liberia even saw a decline. On the other hand the weekly incidence in Sierra Leone continued to rise, the difference in weekly incidence might be due to the consistent under-reporting in both Guinea and Liberia (European Centre for Disease Prevention and Control, 2014e). At the same time EVD remained present in every administrative district in Liberia, Guinea and Sierra Leone and in particular in the capital cities of these countries.

In the second half of January 2015 the World Health Organization reported that in all three of the currently affected countries the weekly incident rates had significantly dropped and the spread of EVD had stopped. Even though all three countries were trending in the right direction, the World Health Organization stressed that the PHEIC was still in effect. They stated that a high level of surveillance was needed to maintain the decline in cases and keep the momentum in the trend towards zero cases (European Centre for Disease Prevention and Control, 2015). In addition to the current measures a possible vaccine has been developed and shipped to the affected countries, this possible vaccine has been through multiple trials and as a final trial is being tested in the affected areas.

On November 7, 2015 Sierra Leone was declared Ebola-free by the World Health Organization, followed by Guinea on December 29, 2015 and Liberia on January 14, 2016 (European Centre for Disease Prevention and Control, 2016).

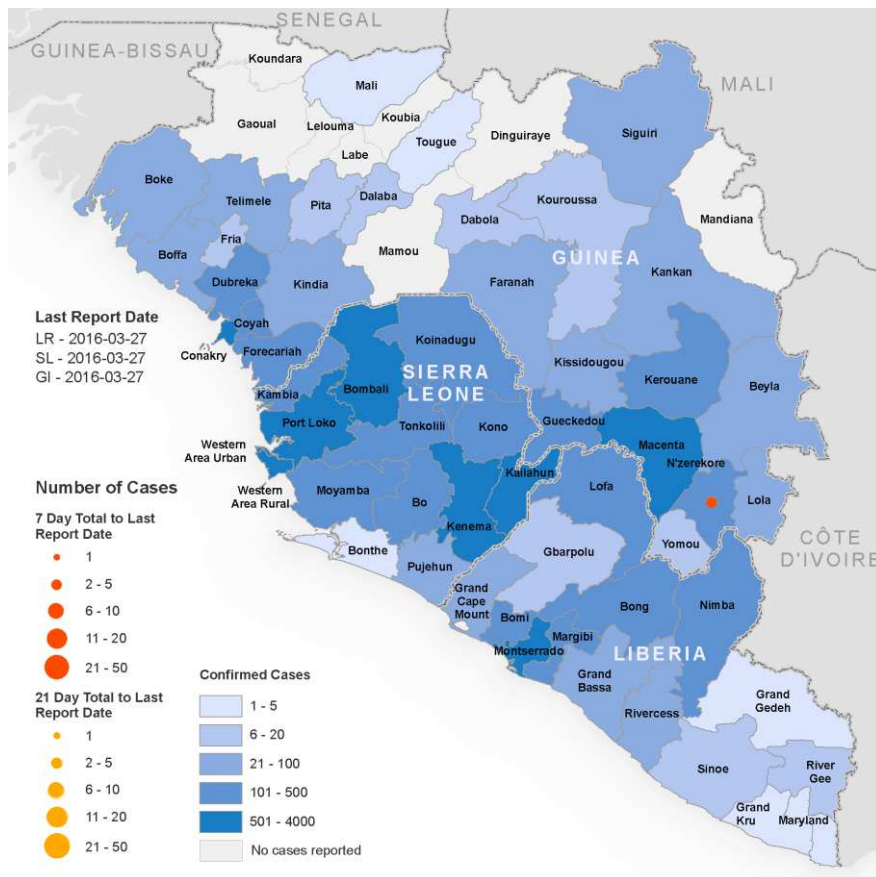


Figure 2: Case count and last report date of a new EVD case (European Centre for Disease Prevention and Control, 2016).

4.3 Outbreak containment measures

4.3.1 Outbreak containment measures in EVD-affected countries

The main objective to contain the EVD outbreak is to interrupt all chains of human-to-human transmission. The way to achieve this is through six strategies, (1) to combat the distrust of the citizens towards the government it is important to instruct community leaders about the disease, its way of transmission and how to protect yourself against it. This way they can communicate this information to their community members and spread the information. (2) It is of vital importance to quickly identify and isolate suspected EVD cases so they can be diagnosed and receive treatment. Afterwards it is important (3) to identify all contacts of each EVD case to be able to actively monitor each of the contacts and isolate them in case they develop symptoms. (4) When cases are admitted into healthcare institutions the risk of transmission has to be minimized through appropriate use of protective equipment and careful handling of hospital waste. (5) Deceased patients have to be buried in a safe procedure, limiting the physical contact to a minimum to decrease the risk of infection of attendants. The final strategy is (6) to raise public awareness of the disease and promote adherence to protective behavior among the public (European Centre for Disease Prevention and Control, 2014f).

The main problem for successful implementation is gaining public trust in government response measures and ensuring cooperation from the people and communities directly involved. Due to the high levels of distrust in government officials the implemented measures have proven to be unsuccessful during the earlier phases of the outbreak (European Centre for Disease Prevention and Control, 2014f). When the outbreak finally came to a halt and the number of cases slowly started to decrease it was attributed to the fact that the affected communities cooperated with the healthcare workers due to intervention of community leaders (European Centre for Disease Prevention and Control, 2015).

4.3.2 Outbreak containment measures in the EU

For the EU countries themselves the threat of a possible EVD outbreak is most likely to come out of three possible scenarios. The first scenario is the possibility that an EU resident is exposed to EVD through visiting relatives and friends in the affected areas, with the highest risk of exposure coming from attending burial ceremonies. The risk of infection is highest through mucosal contact or through broken skin contact. The second scenario is the possibility of an EU resident being exposed to EVD in a healthcare setting. Risk of infection is highest when seeking invasive medical care and lowest during consultations requiring non-invasive tests. Visiting a hospital not providing care to known EVD cases does not exclude the resident from the risk as new infectious cases could seek help at any healthcare provider. The third likely scenario is infection of EU healthcare providers during a medical evacuation from an EVD-affected country. If the necessary procedures for dealing with EVD infected patients are not adequately followed there is the risk of the patient infecting his healthcare providers and causing a new outbreak within the European Union (European Centre for Disease Prevention and Control, 2014f).

The most appropriate measures to contain a possible outbreak in the European Union are most clearly defined in the Rapid Risk Assessment reports written by the European Centre for Disease Prevention and Control (ECDC) in response to the EVD outbreak in West Africa. The most direct measure is to send medical and financial assistance to the affected areas to directly combat the outbreak at the core and prevent it from spreading to the European Union in the first place. The foundation of this assistance should consist of humanitarian aid, development aid, medical research, coordination and medical evacuation. When looking at the possible measures to be implemented within the European Union, the ECDC stresses the importance of information and communication. The main recipients of this information would have to be travelers to and from EVD-affected countries and healthcare providers in the European Union.

If individual travelers take responsible decisions in the EVD-affected countries they can most likely prevent being infected. By informing healthcare providers with the information needed to properly isolate and treat patients infected with EVD and at the same time supporting them to help identify and manage possible EVD patients an outbreak of EVD in the healthcare setting can be prevented (European Centre for Disease Prevention and Control, 2014f).

A third important measure for the European Union to activate is the early detection system for possible EVD cases. By using the existing framework created in the Decision No 1082/2013/EU of the European Parliament and of the Council of October, 22 2013 on serious cross-border threats to health (European Commission, 2013) it is possible for the Member States to coordinate an adequate detection system and prevent outbreaks before patients start expressing symptoms of EVD.

The final measure suggested that could improve chances of containing the crisis is adequately contained would be the implementation of entry and exit screening on flights departing from EVD-affected countries and arriving in the European Union. Most effective and least costly of these two options would be exit screening, with exit screening passengers would be scanned, tested and screened before boarding the flight to the European Union. Through thermal scanners it is possible to detect febrile passengers and select them for further screening to determine the origin of their fever. This would not be effective to detect incubating passengers, which is why it is suggested to add a contact history screening for all passengers leaving from EVD-affected countries to check for possible contact with known EVD patients. If a possible EVD case is discovered, the passenger should be isolated and diagnostically tested for EVD before being allowed to travel to their destination. Entry screening, screening at the point of arrival, should only be implemented if there is evidence that the exit screening on the point of departure is not properly or effectively done (European Centre for Disease Prevention and Control, 2014f).

4.4 Measures taken by the European Union and its Member States

The European Union only became invested shortly before the World Health Organization declared the West Africa EVD outbreak to be a Public Health Emergency of International Concern (PHEIC). The first publicly released statement was the following short statement by Commissioner Borg on August 8, 2014:

*“Today we have learned that World Health Organization (WHO) has declared the worsening situation regarding the outbreak of Ebola in West Africa a **Public Health Emergency of International Concern**.*

Over the last eight months this outbreak has claimed the lives of over 900 people in Guinea, Liberia, and Sierra Leone and has recently affected people from Nigeria and the USA.

In the last few days we have heard that an EU patient - a Spanish national, who contracted the Ebola virus in Liberia, has been repatriated to Spain to receive health care.

My thoughts are with the victims and their families. I pay tribute to the affected communities in their struggles and the many thousands of people who are engaged in front line efforts to combat Ebola – including many volunteers from the EU.

As European Commissioner for Health I want to reassure citizens that the risk from Ebola to EU territories is extremely low. This is both because relatively few people travelling to the EU are likely to be infected with the virus, and because of the way in which it spreads, i.e. only through direct contact with the symptomatic patient's body fluids.

It is also important to consider that the EU has very high standards of health and preventive care.

The EU has been following the situation in West Africa for many months and, in the unlikely event of Ebola reaching the EU, we are prepared in the face of the virus.

*The Commission is working on preparedness and coordination of risk management together with Member States and with the support of the European Centre for Disease Prevention and Control (ECDC) and WHO. The **EU Health Security Committee**, established under the Decision of the European Parliament and of the Council on serious cross border threats to health is coordinating the exchange of information and coordination of preparedness, in response to Ebola in the EU. Information for travellers to the affected regions is already available and regularly updated.*

The Commission is also active on the ground in West Africa, and my colleague, Kristalina Georgieva, EU Commissioner for International Cooperation, Humanitarian Aid and Crisis Response recently announced scaled up EU funding in response to the outbreak.

In this grave situation it is essential that we all cooperate together in a spirit of solidarity. I am confident that together, with the support of people in the affected countries and our own citizens that the present outbreak will be successfully contained (European Commission, 2014o)."

The upscale in EU funding mentioned by the Commissioner in his statement was officially presented in a press release on September 5. The total funding consisted of 140 million euros, which would be split as follows; 38 million euros to strengthen healthcare systems in the affected countries, 5 million euros towards proving mobile laboratories for the detection of the virus and training of health workers and 97.5 million to reinforce the Liberian and Sierra Leonean governments' capacity to deliver public services (European Commission, 2014g). The same day another press release was made available containing a short summary of the EVD outbreak as well as a summary on the European Commission's (EC) actions to assist in tackling the crisis. One of the actions the press release mentioned was the diplomatic outreach to make sure its Member States did not overreact to the crisis. Another new fact was the deployment of the Commission's Emergency Response Coordination Centre (ERCC) to monitor the situation and exchange information with the international organizations on the ground. The press release

ended with a short piece on the possibility of the outbreak spreading to Europe and an assurance concerning the level of preparedness of the EU Health Security Committee (HSC) (European Commission, 2014f).

On September 26, 2014 Commissioner Borg addressed the audience at a meeting of the Global Health Security Agenda (GHSA) repeating the support promised in the earlier press releases, while at the same time adding 30 million euros in humanitarian aid to the aid package that was announced on September 5 (European Commission, 2014j).

On October 7, 2014 the European Union released a short statement in which they wrote about the up scaling of their activities to combat Ebola, this up scaling is necessary as “we are in a race against time to fight Ebola (European Commission, 2014b).” They announced the start of an airlift operation to provide relief items such as protection equipment, medicines and hygiene supplies. They would also start a medical evacuation system coordinated by the ERCC to repatriate EVD diagnosed international workers to hospitals in Europe. These activities would be funded out of the on September 26th announced humanitarian aid. Additionally the ERCC was in charge of coordinating the transportation of aid, equipment and personnel to the affected countries from its Member States (European Commission, 2014b).

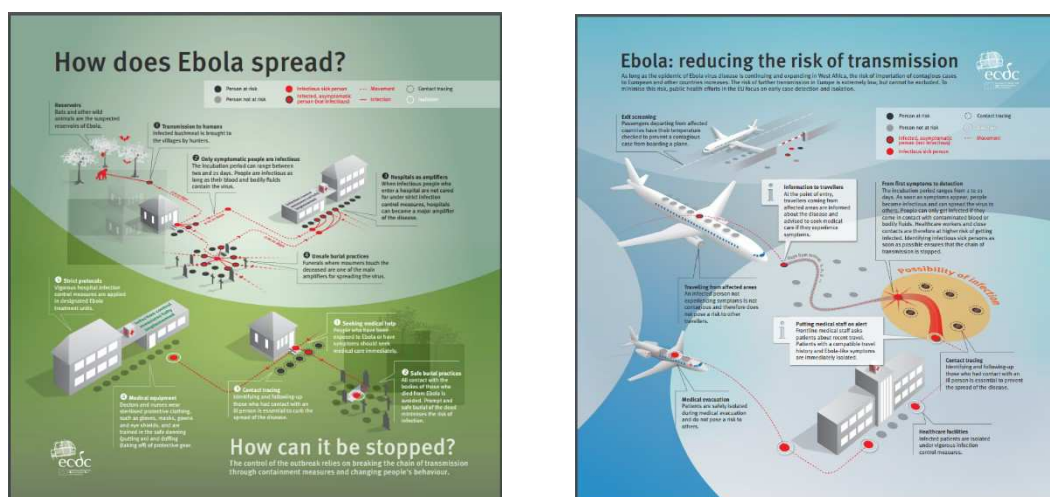


Figure 3 and 4: Infographics on the spread of Ebola and transmission risks (European Centre for Disease Prevention and Control, 2014a)

On October 9, 2014 the EC released two infographics (Figure 3 and 4) on the risk of infection and how to prevent infection for citizens travelling to the EVD-affected countries (European Centre for Disease Prevention and Control, 2014a). This was followed by a Q&A press release on October 15, 2014 which provided information to the public about EVD, the forms of transmission and an indication of the risk EVD posed to Europe. The Q&A highlights the

difficulties in managing the crisis in West-Africa while also stating that they deem it highly unlikely for the disease to reach the same proportions in Europe (European Commission, 2014n).

On October 16, 2014 the European Commissioner of Health Tonio Borg arranged a high-level coordination meeting of all the Ministers and Secretaries of State to address the rapid spread of EVD, but more so the growing concern of citizens and the increasing mediatization of the EVD outbreak (European Commission, 2014m). During this meeting it is stated that it is necessary to consider all the means of preparedness, without taking away the sovereignty of the EU Member States. The European Union Decision on Cross border health threats of October 22, 2013 provides the European Commission with a protocol on which to operate (European Commission, 2013). Commissioner Borg reminded the Member States in this speaking note of the duty they have to closely follow the protocol set in the October 22 Decision and coordinate their efforts through the Health Security Committee (HSC) and the European Commission to create a coordinated set of national responses to this cross-border health threat (European Commission, 2014m). This meeting was the first meeting in which the Member States could exchange information and discuss possible entry measures to be implemented at the EU borders. An interesting insight gained from this press release is the notion that the European Commission is not underestimating the possible spread of the disease. The ECDC stated in their Rapid Risk Assessments that the effectiveness and efficiency of entry screening is very limited, while being up to date on these findings the Commissioner still states his desire to implement entry screening on the border of the European Union. He stated that even though the effect might be limited, the screening would be justified if at least one life was to be saved because of the screening (European Commission, 2014m). In contrast to the opinion of the Commissioner most Member States do not favor entry screening (European Commission, 2014m).

A press statement released on October 23, 2014 announced a fast-track procedure initiated by Horizon 2020, the research and innovation program created by the European Union, to distribute a total of 24.4 million euros to five different projects ranging from clinical trials of possible vaccines to testing possible treatments for EVD. At the same time the European Commission is also working together with the pharmaceutical industry within the Innovative Medicines Initiative (IMI) to develop vaccines, drugs and diagnostics for Ebola Haemorrhagic Fever (EHF) and other related haemorrhagic diseases. Finally this statement informed the public of the European Commission's request to the European and Developing Countries Clinical Trials Partnership (EDCTP) to include emerging epidemics that might concern the

European Union in its work plan. This would allow the EDCTP to fund clinical trials that might come up in the future (European Commission, 2014l).

On November 5, 2014 the Commissioner of Humanitarian and Crisis Management, Christos Stylianides gave a detailed view of the European Union's response to the Ebola crisis. As the designated coordinator for the Ebola crisis he reported on the available tools to combat the EVD outbreak for the European Union and reported a total spending budget of 900 million euros to combat EVD. Commissioner Stylianides and the newly appointed Commissioner of Health Vytenis Andriukaitis announced a visit to the affected regions in Sierra Leone, Liberia and Guinea between November 12 and November 16, 2014 (European Commission, 2014a).

On November 6, 2014 a week earlier than the mission of the two European Commissioners a press release was issued. This press release reports on the eagerness of the European Union and its Member States to pledge money in a response to the EVD outbreak, on October 24, 2014 the European Council set the target of one billion euros to assist in the stemming of the epidemic, which at the moment of the press conference this target had already been surpassed. Ahead of the visit of the responsible Commissioners a ship filled with medical and research equipment provided by nine Member States left on November 6, 2014 to assist the affected countries (European Commission, 2014l).

On the same day the Innovative Medicines Initiative (IMI) launched a call for proposals to boost research on EVD and provided 280 million euros to execute the best of the available proposals. The program called Ebola+ focused on a wide range of challenges in Ebola research; vaccines, diagnostics, treatments, clinical trials as well as ideas for storage and transport of EVD vaccines. The projects selected from the admitted proposals were set to start in early 2015 and would not only focus on tackling this crisis, but also future outbreaks of EVD and related diseases (Innovative Medicines Initiative, 2014).

On November 11, 2014, a day before the planned four-day visit of the two Commissioners, Commissioner of Health Andriukaitis launched a new communication platform to enable rapid exchange of information on the treatment and prevention of EVD. This platform was meant as a way to directly connect all hospitals and physicians serving as reference centers for EVD treatment in the European Union. This platform created by the European Centre for Disease Prevention and Control (ECDC) in cooperation with the World Health Organization (WHO) aimed at increasing the preparedness of health care specialists through sharing the experiences

of the treatment of EVD patients hospitalized in the European Union (European Commission, 2014c).

The Directorate General of Health and Food Safety released a short statement on November 12, 2014 in which they notified the public of the fact that they organized a meeting on November 13, 2014 to let European medical specialists and border organizations identify gaps and challenges in the context of Ebola. This meeting would also be used to inform the participants on the European Union's latest activities to tackle Ebola and allow the European Commission to learn how health care professionals inform their clients about Ebola (European Commission, 2014d).

A press release on November 17, 2014 announced that after returning from a four-day visit to the affected countries EU Ebola Coordinator and Commissioner for Humanitarian Aid and Crisis Response Stylianides had freed up 29 million euros of funding to be spent on ending the EVD outbreak in West-Africa. Of this 29 million, 17 million euros was to be spent on transporting supplies and equipment to the affected countries, evacuating infected international aid workers and training local health workers. The remaining 12 million euros were reserved for assistance of countries neighboring the affected countries in helping them prepare for the possibility of an EVD outbreak through early detection and public awareness measures (European Commission, 2014h).

A second important message in this press release is the fact that both EU Ebola Coordinator and Commissioner for Humanitarian Aid and Crisis Response Stylianides and Commissioner of Health Andriukaitis strongly urged the Member States to send additional medical workers to the affected countries. In the press release the two quotes by both Commissioners show that they feel a great urgency to stop the spread of the EVD outbreak (European Commission, 2014h).

"I have seen for myself how much is being done on the ground, in very difficult circumstances, and how much more needs to be done to stop Ebola's spread. I was impressed with the bravery of humanitarian workers in Liberia, Sierra Leone and Guinea. More of them are needed and we must intensify our joint efforts to contain, control, treat and ultimately defeat this virus – EU Ebola Coordinator and Commissioner Stylianides (European Commission, 2014h)."

"We will not give up until Ebola is defeated. I saw great suffering and enormous needs during this trip: there are not enough doctors and nurses and I am appealing to all Health Ministers to send more medical staff to West Africa. I witnessed great need for equipment, medicines, transport means, water, sanitation. Europe is here to help put an end to Ebola now and to help long-term recovery required to address these needs – Commissioner of Health Andriukaitis (European Commission, 2014h)."

This sense of urgency had spread through the European Commission and the Member States as on December 6, 2014 a press release was issued in which the European Commission announced that the governments of Greece, France, Sweden, Luxembourg, Germany and Belgium had provided either medical personnel or airplanes capable of evacuating infected international aid staff to European hospitals (European Commission, 2014i).

On December 8, 2014 the European Commission issued a press release in which they provided a summary of their actions to combat the EVD outbreak on many different topics. On the topic of financial assistance the press release shows the spending of over 1.1 billion euros by the entire European Union and its Member States, of which 434 million euros by the European Commission. This funding by the European Commission has been spent on the most urgent needs of the people in the affected countries, supporting humanitarian partner organizations working in the affected countries and raising awareness among the population on the transmission of EVD and how to avoid transmission. The highest amount of funding, 210 million euros, was spent on development and early recovery assistance, these funds are meant specifically to deliver vital public services and maintain macro-economic stability in the affected countries. In addition to the financial assistance the European Union had also provided emergency supplies and expertise as well as medical evacuation of international health workers infected with EVD (European Commission, 2014k).

The press release stated on the subject of research that at that point in time there was still no specific treatment or vaccine available against Ebola. To try and speed up the process of finding a specific treatment and vaccine the European Union had established a partnership with the European pharmaceutical industry, the Innovative Medicines Initiative (IMI), this partnership focused on fast-track research to find treatments or vaccines through clinical trials in the Ebola-affected countries (European Commission, 2014k).

The December 8, 2014 press release also made specific mention of the risk of EVD spreading to the European Union and the level of preparedness the European Union has to deal with the possibility of EVD spreading to the European Union's Member States. The European Commission states that because of the way of transmission of EVD, the risk of EVD to the general public is very low. When combined with the high level of healthcare infrastructure in the European Union any possible cases entering the European Union would be identified, quarantined and treated before spreading EVD to other people. The European Commission ensured the public that the level of preparedness is very high, the Commission had activated

the Early Warning and Response System (EWRS) for medical procedures created in the October 22, 2013 Decision on serious cross-border threats to health and the Health Security Committee (HSC) had regular meetings to coordinate Ebola prevention and readiness. The HSC was the committee in charge of preparedness and the creation of a list of high security laboratories, hospital capacity and medical evacuation equipment that could be used in case of a European outbreak. The HSC cooperated closely with both the European Centre for Disease Prevention and Control (ECDC) and the World Health Organization (WHO). In addition to the actions by the HSC, the European Commission had also launched the Ebola Communication Platform for Clinicians, this platform was announced in an earlier press release and had as main goal to enable rapid exchange of vital information on the treatment and prevention of EVD. The European Council had also appointed a EU Ebola Coordinator, Commissioner Stylianides, to ensure a coordinated response of European institutions and Member States through the EU Ebola Task Force (European Commission, 2014k).

Finally the December 8, 2014 press release stated that the European Commission would, in cooperation with the World Health Organization, carry out an audit of the exit screening measures implemented in the three most affected countries. A report of this audit was planned to be released later that month (European Commission, 2014k).

On December 15, 2014 a press release was issued to report on the audit of the exit screening measures in Sierra Leone, Liberia and Guinea. The aim of this audit was to see whether or not the exit screening was done according to the existing guidelines, to see the exit screening's effectiveness and the level of implementation. The audit team reported a high level of implementation of exit screening on all three airports and assessed the probability of a not screened passenger boarding a plane as close to impossible. However the report also expressed concerns on the sustainability of these exit measures on the long term (European Commission, 2014e).

On January 16, 2015 the European Commission released a first statement on the projects selected to start their research under the Ebola+ program of the Innovative Medicines Initiative (IMI) and the way the money used for funding the projects was accumulated. A total of 215 million euros would be made available for the projects of which 114 million came from the Horizon 2020 project—the EU's research funding program—and the remaining 101 million euros came from the pharmaceutical companies involved in the projects. Of the eight selected projects three were focused on developing Ebola vaccines, one focused on scaling up the

vaccine manufacturing capabilities, one focused on raising awareness of the fact that multiple injections are needed for maximum vaccination coverage and the remaining three projects focused on creating rapid diagnostic tests to be able to deliver reliable test results in 15 minutes (European Commission, 2015a).

On March 2, 2015 the European Commission issued a press release as an update to the December 6, 2014 summary of the European Union's actions to contain the EVD outbreak. New information presented in this press release focused largely on the type of development aid offered by the European Union and an update on the progress towards an effective treatment. This was the first press release by the European Union which stated that EU-funded research had possibly found an effective treatment in the early stages of EVD. The antiviral drug, Favipiravir, was able to reduce the mortality rate of EVD from 30 to 15 percent in adult and adolescent patients in the early stages of EVD. The fact that there finally was an antiviral drug capable of reducing the mortality of EVD was presented in this press release as a result of strong cooperation of the European Union and the European pharmaceutical industry (European Commission, 2015b).

The final press release issued by the European Commission within the scope of this crisis was the announcement of the Ebola: from emergency to recovery conference taking place on March 3, 2015. This conference organized by the European Union had as main objective to sustain the international mobilization and plan the next steps to fight the current outbreak and reduce the number of EVD infections to zero. During this conference all key international players in the 2014 EVD outbreak—the governments of the affected countries, the governments of the EU Member States, international and non-governmental organization, the private sector and the scientific community—were invited to review progress on the fight against Ebola and the 2014 outbreak in specific. The conference planned on creating concrete steps to; ensure pledged funds were actually made available, promote regional cooperation, assist countries in West Africa to raise the level of preparedness to prevent further epidemics, build resilient health systems and improve governance and accountability in the affected countries. This press release was presented to the public as being the final chapter in the 2014 EVD outbreak and the return to stability in both the affected countries and the European Union (European Commission, 2015c).

5. Analysis

In the public perception the February 2014 Ebola crisis was adequately managed as the outbreak of EVD never spread to the European Union. Although in the media the argument was created that earlier action by the World Health Organization and the European Union would have meant a significantly lower financial burden to resolve the outbreak, this is not the main focus of this thesis. The aim of this section is to explore the hypotheses to discover the mechanisms and processes at work in this crisis and in turn gives the possibility to analyze if and why these mechanisms and processes contributed to the adequacy of crisis management.

5.1 Level of Politicization

Based on the theories, a hypothesis was derived claiming that politicization of a crisis leads to less adequate crisis management. As stated previously in Chapter 3.3.2 there is no common agreement on the definition and measurement of politicization. For this reason the present study assumes that mediatization functions as an indicator for politicization, this assumption is based on the theory by Mazzoleni and Schulz (1999). Through the salience approach—more important subjects gain more media attention—the level of mediatization and thus politicization is derived. In this study the analysis of mediatization is based on the frequency and content of the press releases by the crisis organization—The European Commission. This way of analysis is based on the assumption that press releases by the crisis organization are directly linked to the amount of media attention for the subject.

From the findings in Chapter 4.4 it is clear that the focus of the media on the EVD outbreak increased with the Declaration by the World Health Organization. The first press release was issued on August 8, 2014, this press release was shortly followed by additional statements which indicated the intentions of the European Union to combat the EVD outbreak. The earlier press statements were more abstract as the threat of the outbreak spreading to the European continent was still minor.

However at the end of September 2014 there was a strong increase in the frequency of the press releases, this impulse was further increased by the changing intonation of the press releases. This increase in media attention for the outbreak is linked to the fact that on September 30, 2014 the United States Centers for Disease Control and Prevention (CDC) publicly admitted they had confirmed a first official EVD case directly linked to the West African outbreak. Due to this news it was made clear to the public that the threat of the EVD outbreak—until that moment perceived as relatively low—was actually substantial. Up to the end of September 2014

the European Union had presented the possibility of cases appearing in one of its Member States as unlikely and suddenly had to change their media strategy. October 2014, saw a flurry of different press releases, the European Commission announced the increase of their activities in the affected countries, the European Centre for Disease Prevention and Control (ECDC) released two infographics to warn European citizens of the possible methods of transmission of Ebola and a Q&A session with journalists was organized to answer all possible questions concerning the outbreak and the risks it posed to the European Union.

By mid-October the European Union had organized a huge publicly announced meeting with all the relevant Ministers and Secretaries of the European Member States in which they discussed the possibility of entry screening—deemed as highly inefficient by the ECDC—and other public displays of preparedness and protection of European citizens. This meeting was closely linked to the announcement of the creation of the Innovative Medicines Initiative (IMI) which had as main objective to find possible vaccines and treatments for EVD.

A second increase in press releases was seen in November 2014, this increase can be linked to the fact that the West African outbreak had still not been contained and kept spreading throughout the three affected countries. Over the months leading up to November 2014 the European Union had seen an increase in the repatriation of infected healthcare workers from the affected region. The combination of these two facts lead to the announced visit of the European Commissioners to the affected countries. At the time it was quite clear that the outbreak could only be contained with the help of international aid workers, however because of the rise in infected international aid workers it became less attractive for new healthcare professionals to travel to the affected countries. The promotion offensive of the European Commission of November 2014 was clearly aimed to remedy this vital problem in the battle against EVD.

In the beginning of December press releases were issued to show the progress made by the parties involved in the “Battle against Ebola”. Around this time the peak in media attention directed at the EVD outbreak had slowly begun to decrease as the European Union had presented a high level of preparedness and there was no growth in cases in the Member States.

The final set of press releases in March 2015 present the final stage of media attention for the subject. A possible treatment for EVD was presented combined with a significant decrease in new cases of EVD in the affected countries. The message sent by the European Commission in these final statements presents the facts in a way that shows the inevitable containment of EVD

as well as the promise of a remaining high level of vigilance. No further press releases were issued by the European Commission even though the crisis in Western Africa was at the time not completely resolved, this serves as an indication for the lack of media attention at that time.

Concluding the level of mediatization surrounding the crisis had been substantial at times, as seen in the level of media attention given to the crisis by the European Commission. However it is difficult to identify the type of impact the mediatization had on the adequacy of crisis management. The findings might suggest an increase in adequacy of crisis management in the highly mediatized periods, this would be contrary to the hypothesis. Without further study it is **not possible to determine whether the findings verify or falsify the hypothesis.**

5.2 Geopolitical Context

The second and third hypotheses of this study assumed that the geopolitical context of a crisis would lead to more politicization and less adequate crisis management. Based on the findings in this thesis it is assumed that in this crisis the level of geopolitical implications was very high. The EVD outbreak itself took place in only three countries in Western Africa, however the amount of governments and international organizations involved in the containment of the crisis goes far beyond Western Africa. Especially after the World Health Organization declared the outbreak to be a Public Health Emergency of International Concern the level of investment from the European Union, the African Union and the United States rose significantly. These increased efforts can partially be attributed to the growing level of mediatization mentioned in Chapter 5.1, but it is hard to deny that the framing by the World Health Organization lead to this rise of mediatization in the first place. When the United Nations called the 2014 outbreak of EVD in Western Africa a threat to international peace and security the already strong geopolitical context of the crisis was confirmed once more.

When relating the findings to the hypotheses **it is verified that the geopolitical context of this crisis leads to a high level of politicization and mediatization of the crisis.** However it **cannot be verified** that **the high level of geopolitical implications in turn lead to a less adequate crisis management** for the 2014 West African Ebola outbreak, the findings even seem to portray an **opposite effect.**

5.3 Improvisation from Protocols

The theory surrounding the effect of improvisation from protocols assumed that improvisation from protocols when dealing with a transnational or international crisis lead to less adequate crisis management. This theory is represented in this thesis as the fourth hypothesis which states

that improvisation from protocols during a crisis hinders the chances for adequate crisis management. In this specific case it is hard to measure if improvisation actually hindered the adequacy of crisis management as it is accepted that this crisis has been managed adequately. Therefore the assumption is made that if the protocols set in the October 22, 2013 Decision were properly followed, this had a positive influence on the adequacy of crisis management.

The findings presented in Chapter 4.4 show that the European Union had recently created protocols to deal with the possibility of a transboundary health threat like the 2014 Ebola outbreak. Due to the existence of up to date protocols there was little need to improvise and disregard the protocols. With the coordinating function of the European Commission in the early stages of the outbreak, the activation of the Health Security Committee to deal with the coordination of the crisis when it became more prominent and the advising function of the European Centre for Disease Prevention and Control (ECDC) there was ample precedent to deal with the crisis.

The October 22, 2013 Decision on serious cross-border threats to health provided the European Commission with the tools to assume control as the main coordinator of the crisis and lead to the creation of EU Ebola Task Force with the European Commissioner for Humanitarian Aid and Crisis Response as its head. The October 22, 2013 Decision had also created the precedent that gave the European Commission the power to activate the Early Warning and Response System (EWRS) that coordinated possible cases and infections across all the Member States. Also mentioned in the October 22, 2013 Decision was a possible communication platform for clinicians to communicate vital information concerning the treatment of threatening diseases. It was deemed by the Commission that Ebola was threatening enough to establish this platform and activate it.

When combining these findings it is assumed that in this specific case there was very little improvisation from protocol on the level of the European Union. All the followed protocols above seem to have contributed to the adequacy of the crisis management, from this the conclusion is drawn that following the protocols during a crisis has a positive impact on the adequacy of crisis management, **this verifies the hypothesis** as stated above.

5.4 Existence of a Coordinating Structure

The fifth and sixth hypotheses of this thesis were formulated based on the theory that indicated the positive effect of a coordinating structure on adequate improvisation and adequate crisis management. As mentioned above the case studied in this thesis had very little improvisation

from protocol. This means that it would be complicated to measure the impact a coordinating structure has on the adequacy of improvisation from protocols. Therefore this chapter will disregard hypothesis five and solely focus on hypothesis six.

Since the focus of this study is based on the European level of crisis management instead of the national level, it is assumed that a coordinating structure would only be relevant if it was a European structure. The October 22, 2013 Decision created a strong precedent for the creation of a coordinating structure in case of a transboundary health threat to the European Union. This coordinating structure has the European Commission and the European Council at its head. However in case of a health threat the Health Security Committee (HSC), a Committee created by the European Commission, assumes the power to coordinate the crisis response by the European Union governments. These findings show the existence of a strong coordinating structure in place to control the actions by the separate Member States.

Due to the existence of a strong coordinating structure and the perception of adequate crisis management in this case **the analysis shows that hypothesis six is verified**. With the data available in this thesis it is **not possible to verify hypothesis five**.

5.5 Adequacy of Crisis Management

When the adequacy of crisis management was conceptualized in Chapters 2.1 and 3.3.1 it was constructed that to have adequate crisis management six dimensions have to be fulfilled. These dimensions are (1) preparation, (2) recognition and signaling of crisis, (3) provision of information within crisis organization, (4) analysis, judgment, and preparation of decision-making, (5) decision-making and steering and (6) crisis communication. As already coined in Chapter 3.3.1 due to not having access to all official documents and internal communication of the crisis organization it is impossible to verify if dimension three and five are all adequately fulfilled. For this reason it is assumed that as an outsider the crisis was adequately managed if dimension one, two, four and six were fulfilled.

As already mentioned in Chapter 5.3 the preparation for a crisis like the 2014 Ebola outbreak had been sufficiently prepared and a strong protocol had been implemented with the October 22, 2013 Decision. When the crisis emerged it was clear which organization was responsible for which task, this shows **a high level of preparation of the crisis organization**.

When looking at the second dimension it is more complex. In the public opinion the recognition and signaling of the crisis started late, as the first press release of the European Commission

followed only after the World Health Organization declared the outbreak to be a Public Health Emergency of International Concern. At this point the outbreak had already grown out to be a wicked problem without a clear and easy solution. Even though the critique on the late recognition and signaling is legitimate this thesis argues that the recognition and signaling of the crisis was still at a correct time. If the European Union had mentioned the crisis earlier it might have caused an irrational panic among its citizens and up to the declaration by the World Health Organization there was a miniscule risk to European citizens of exposure to EVD. Only a mere two days before the up scaling of the outbreak to a Public Health Emergency of International Concern saw the European Union its first medical evacuation from the affected countries. **Therefore this thesis concludes that the dimension of recognition and signaling of the crisis was adequately fulfilled.**

During the February 2014 Ebola outbreak the European Commission was frequently updated by the European Centre for Disease Prevention and Control (ECDC). The ECDC cooperated closely with the World Health Organization (WHO) and the United States Centers of Disease Control and Prevention (CDC) to receive the latest information on EVD and the West African outbreak. The ECDC published frequent analysis of the risks of the EVD outbreak on the European Union and provided the European Commission and Health Security Committee with the vital information to take the right decisions. Because of this close cooperation between the different organizations it can be concluded that **the fourth dimension of adequate crisis management, analysis, judgment, and preparation of decision-making, has been fulfilled.**

The adequacy of crisis communication, the sixth dimension of adequacy of crisis management, has a very strong presence in this thesis. In Chapter 4.4 it is made clear that the European Commission was aware of the risk that inadequate crisis communication could pose to their political position as well as the risk to disruption of daily life within the European Union. By frequently releasing press statements, infographics, holding Q&A's and keeping in close contact with clinicians throughout the European Union the European Commission tried to spread information on the high level of preparedness and the low risk of Ebola spreading to Europe. At the same time they frequently communicated updates on the research towards a vaccine and treatment as well as on their efforts to contain the outbreak in the affected countries. Because of these frequent updates the level of information spread to the European population was sufficient to contain panic and avoid the questioning of the political position of the decision-makers. **This leads to the conclusion that the dimension of crisis communication was adequately fulfilled.**

6. Conclusion and Discussion

This study was an exploration of the relation between the politicization of a crisis and adequate crisis management. To be able to study this relationship a case study was created of the February 2014 Ebola outbreak in Western Africa. By using the variables *level of politicization*, *geopolitical context*, *improvisation from protocols* and *the existence of a coordinating structure* this relation was tested. While keeping in mind the strengths and weaknesses of the research design, this final chapter answers the question to what extent and how did politicization affect the adequacy of crisis management within the European Union concerning the Ebola outbreak in February 2014? It will also answer any general conclusions drawn from the study as well as providing recommendations for future research.

6.1 General Conclusions

The main conclusion drawn from this study shows that the presence of a frequently updated and complete protocol greatly improves the chances of adequate crisis management as it leaves little need for improvisation and limits the possibility for miscommunication.

The study originally started with the assumption that politicization of a crisis would make adequate crisis management more complex, however this study has shown this hypothesis to neither be verifiable nor falsifiable. It would be unwise to conclude that politicization has no negative impact on adequate crisis management even though the findings in this study might present it this way.

The relation of a geopolitical context on the level of politicization has shown to be verifiable in this study although nothing can be said of the strength of this relationship. The relation between geopolitical implications and adequacy of crisis management can neither be verified nor falsified within this study, although the findings might suggest a positive effect on the adequacy of crisis management.

Furthermore this study has shown a verified relation between the existence of a strong coordinating structure and adequacy of crisis management. Due to the lack of improvisation from protocol in this case it is impossible to either verify or falsify the suggested relationship between the existence of a strong coordinating structure and adequate improvisation from protocols.

A final conclusion that can be drawn from this study is that the February 2014 Ebola outbreak has been adequately managed by the European Union according to the dimensions presented by Torenvlied et al. (2015).

With the findings presented in the present study it is made clear that the combination of a strong coordinating structure and an up to date crisis management protocol contribute to the adequacy of crisis management. Furthermore it shows the possible strength of the European Union as a coordinating presence when confronted with cross-border health threats.

6.2 Limitations and Recommendations for Future Research

Most strikingly the formulation of the hypotheses in the present study did not perfectly fit the studied mechanisms, most hypotheses assumed a negative relation while the findings supported a positive relation. This made it increasingly difficult to verify the hypotheses. Furthermore the selected case did not allow for the study of improvisation from protocols as there was little to no improvisation necessary in the crisis management. Future research into this specific mechanism would have to be tested with a different case as focal point.

The measurement of politicization and mediatization of the crisis was limited by a lack of time and resources. To adequately measure the level of mediatization it would be ideal to use a media monitoring and analysis service to generate a concise summary of the level of mediatization. The level of politicization would ideally be measured by recording the level of disagreement during meetings of Member States and the European Commission to measure the level of political disagreement.

The research design used for this study, Realistic Evaluation, can be seen as the appropriate way of analysis of the subject. Multiple case studies might have promoted reliability and generalizability, but this would be at the cost of the depth of the analysis a single case study provides.

A study on the strength of the relations verified in the present study could be a scientifically interesting topic for future study. Another possibility would be to study the relation between a single mechanism and the adequacy of crisis management as it could provide a far more detailed analysis of the relation. Furthermore as the resources of this study were limited it was impossible to fully explore each mechanisms relation to each other, this could possibly be the subject of future research.

Even when considering the limitations of this study there should still be enough validity to consider the results of this study relevant to the research field of crisis management.

7. References

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