The Response to the West African Ebola Outbreak (2014-2016): A Failure of Global Health Governance?

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Abstract

This article provides an overview and characterizes the events of the 2014 West African Ebola outbreak as they unfolded, as well as the response of the international community to this outbreak. On this background, the harsh criticisms of the alleged failure of the international community and the key recommendations for the improvement of disease outbreak response are scrutinized. Critique in retrospect has to be taken with caution, as each outbreak has its specific features. It is important to distinguish between (a) the potential for flexible short-term responses to hitherto unknown features of a specific outbreak; (b) general improvements of international emergency response facilities; and (c) long-term structural improvements needed to develop the core capacity requirements for surveillance and response. In contrast to early critical assessments, many reports published in late 2015 and early 2016 had a strikingly different tone, stressing the final success in combating the regional outbreak. The article closes with some concerns regarding the consistency with which the far-ranging recommendations will be pursued.

I Introduction

The international response to the Ebola epidemic in West Africa has been broadly criticized by many authors, and, partly as a form of self-criticism,

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by many actors of Global Health Governance (GHG). This criticism refers in particular to the first months of a reluctant reaction by the World Health Organization (WHO) and other top international health actors, such as the United States Centers for Disease Control and Prevention (CDC). Thus a report by a panel from the Harvard Global Health Institute and London School of Health and Tropical Medicine (LSHTM) stated:

> "The west African Ebola epidemic that began in 2013 exposed deep inadequacies in the national and international institutions responsible for protecting the public from the far-reaching human, social, economic, and political consequences of infectious disease outbreaks."[1]

And the WHO Ebola Interim Assessment Panel criticized:

> "Given WHO's extensive experience with outbreaks, health promotion and social mobilization, it is surprising that it took until August or September 2014 to recognize that Ebola transmission would be brought under control only when surveillance, community mobilization and the delivery of appropriate health care to affected communities were all put in place simultaneously."[2]

Pierre Rollin, Ebola expert from the CDC, talked of a "missed opportunity", as "without a robust and coordinated response, an invisible epidemic was allowed to thrive alongside the one assumed to be contained".[3] It is only after the declaration of a public health emergency of international concern (PHEIC) that the beginning of a "global response" is recognized.

As a starting point, this article will focus on clarifying the sequence of events around the Ebola outbreak, document the rather slow development of international cooperation and put this process into context. This might help to explain the governance failures during the first months of the outbreak, as well as the more long-term aspects of local problems and international surveillance of infectious diseases which resulted in the catastrophic spread of Ebola in the second half of 2014.

Most of the more local and regional factors impeding an early containment of the Ebola outbreak are discussed in the contribution by *Michael Marx* in this volume, which focuses primarily on the deplorable state of the health systems and of state institutions in general in the three main affected

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1 Moon, S, Sridhar, D & Pate, M A et al., "Will Ebola change the game? Ten essential reforms before the next pandemic. The report of the Harvard-LSHTM Independent Panel on the Global Response to Ebola" (2015), 386 *The Lancet*, 2204 (2204).

2 WHO, 68th World Health Assembly, Document A68/25, *Annex "Ebola Interim Assessment Panel" 3*, available at http://apps.who.int/gb/ebwha/pdf_files/WHA68/A68_25-en.pdf?ua=1.

3 Sack, K, Fink, S & Belluck, P et al., "How Ebola Roared Back" (December 30, 2014), *New York Times*, D1, available at http://www.nytimes.com/2014/12/30/health/how-ebola-roared-back.html?_r=0.

countries after a decade of devastating warfare, and on cultural elements, such as burial customs, etc. Considering the discourse on the failure of the international community in general, and WHO in particular, this contribution presents a short overview of the West African Ebola outbreak and the early responses to it and then refers in some detail to the systems of international emergency response to outbreaks of infectious diseases. This will refer not only to WHO, its regional organizations, and the International Health Regulations (IHR 2005), but also to the entire system of GHG, defined by *David Fidler* as "the use of formal and informal institutions, rules, and processes by states, intergovernmental organizations, and non-state actors to deal with challenges to health that require cross-border collective action to address effectively".[4] An interesting comparison of nine different assessments and recommendations has been published in the paper "Global Response to Health Crisis", and will be discussed in more detail in Section III.[5]

In fighting the Ebola outbreak, a large variety of GHG actors such as Médecins Sans Frontières (MSF) and other Non-Governmental Organizations (NGOs), philanthropic organizations, important health research and policy centers (CDC etc.), other intergovernmental organizations in the field from regional organizations such as the West African Health Organisation (WAHO), which is a specialized institution of the Economic Community of West African States (ECOWAS), and even up to the UN Security Council participated.

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4 Fidler, D P, *The challenges of global health governance, Council on Foreign Relations Working Paper*, 2010, 3. Besides the text by *Fidler*, there is now a huge body of literature on GHG, starting with Dodgson, R, Lee, K & Drager, N, "Global Health Governance. A Conceptual Review" (2002), *Discussion Paper No. 1*; Buse, K, Hein, W & Drager, N (eds.), *Making Sense of Global Health Governance. A policy Perspective*, 2009; Moon, S, Szlezák, N A & Michaud, C M et al., "The global health system: Lessons for a stronger institutional framework" (2010), 7 *PLOS Medicine*, 1; (article in a four-part series on the global health system in *Plos Medicine*); Schrecker, T (ed.), *The Ashgate Research Companion to the Globalization of Health*, 2012; Kickbusch, I & Cassar Szabo, M M, "A new governance space for health" (2014), 7 *Global Health Action*, 23507, available at http://dx.doi.org/10.3402/gha.v7.23507.

5 Global Response to Health Crisis, *A Comparison of Expert Recommendations following the Ebola-Outbreak in West Africa*, available at http://www.thinkglobalhealth.de/Inform/ (website by *Mathias B. Bonk*). The assessments dealt with in more detail will be quoted below.

In the final part of this article, some observations on the limitations of emergency operations are added, trying to determine important governance failures without forgetting that they have been identified in an ex-post analysis. If these failures are linked to structural problems (for example lack of support for surveillance systems in poor countries), reform policies can be embarked on; if they are based on false expectations about characteristics of a disease, this is a matter of methods of foresight.

II Timeline of the West African Ebola Outbreak and Responses

An exact timeline of the outbreak and the main dates of intervention (diagnosis, medicines and vaccines development, treatment regimes)[6] helps in understanding the dynamics and failures of outbreak control. Here, emphasis is placed on the early phase of the outbreak until full international engagement was reached in September 2014, and also the last phase with various declarations on the "end of the outbreak", as those are most important concerning the discourse on the "failure of the international community".

The data shows clearly distinguishable phases of the development of the outbreak. About three months passed before the disease was identified as Ebola:

- December 2013: Two-year-old boy dies of Ebola (presumed first fatality of the outbreak, according to information published in the New England Journal of Medicine in May 2014).[7]
- February 2014: Guinean sources talked about a "strange disease" (see below), initially suspected to be caused by Lassa virus.

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6 The dates of this timelime have been compiled from various sources: WHO, *Ebola situation reports*, available at http://www.who.int/csr/disease/ebola/situation-reports/archive/en/ (starting August 29, 2014); WHO, *Emergencies Preparedness, Response*, available at http://www.who.int/csr/don/archive/year/2014/en/; WHO, *A year of the Ebola response "at a glance"*; WHO, *Ebola response activities 2014-2015*, available at http://www.who.int/csr/disease/ebola/who-activities-report/en/; United States Centers for Disease Control and Prevention, *Outbreak updates (now: "previous outbreak updates")*, available at http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/previous-updates.html; MSF, *MSF reports on Ebola*, available at http://www.msf.org/en/search?keyword=Ebola. For other references, see the following footnotes.

7 Baize, S, Pannetier, D & Oestereich, L et al., "Emergence of Zaire Ebola Virus Disease in Guinea" (2014), 371 *New England Journal of Medicine*, 1418 (1418).

- March 10, 2014: Hospitals and public health services in Guéckédou and Macenta alerted the Ministry of Health of Guinea and – 2 days later – Médecins sans Frontières in Guinea about clusters of a mysterious disease characterized by fever, severe diarrhea, vomiting, and an apparent high fatality rate.
- March 13, 2014: First formal report from WHO Country office in Guinea into the Emergency.[8]
- March 14, 2014: Xinhua, the Chinese news agency reports: "A disease whose nature has not yet been identified caused the death of eight people in the prefecture of Macenta, in south-eastern Guinea, Thursday revealed Dr Sakoba Keita, Director of the Division prevention of diseases in the Department of Health".
- March 14, 2014: MSF is asked by the Guinean Ministry of Health to investigate an "unidentified" disease[9] and launches an emergency response.
- March 15, 2014: Guinéenews (interviewing Sakoba Keita) reports about a "strange disease that *has been raging for the month of February* in the Forest Region, killed 9 of 15 reported cases".[10]

After the Ebola virus had been confirmed as the cause of that "strange disease", for approximately two months the expectation prevailed that the outbreak would have had a limited impact comparable to previous outbreaks of the disease in Central Africa:[11]

- March 21, 2014: Laboratory tests confirm Ebola in Guinea.
- March 22, 2014: Ebola outbreak officially declared by the Guinean Ministry of Health.
- March 22, 2014: First contribution to Ebola Funding through WHO by EU Humanitarian AID Office.
- March 25, 2014: First CDC report on outbreak in Guinea (86 suspected cases, including 59 deaths) and references to suspected cases in Liberia and Sierra Leone (CDC 25 March).
- March 31, 2014: MSF "declared that the outbreak was 'unprecedented' in terms of its geographic spread" (first cases in the capital Conakry and in Liberia).

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8 For a more detailed information on WHO actions until the declaration of PHEIC, see: WHO, *Review Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response*, Implementation of the International Health Regulations (2005), A69/21, May 13, 2016.

9 Richter, S, "What went wrong in Ebola response?" (2015), 21 *Rural*, 9.

10 See the following website FluTracker, http://bit.ly/2mcuXBc.

11 The previous most severe outbreaks were in Zaire (1976: 318 cases/280 deaths) and in Uganda (2000/2001: 425 cases/224 deaths), see: CDC, *Outbreaks Chronology*, available at http://www.cdc.gov/vhf/ebola/outbreaks/history/chronology.html.

- April 1, 2014: Early WHO health supplies arrived.
- Emergency measures by other NGOs, medical research institutes, bi-national cooperation and WHO were intensifying since early April 2014.
- May 26, 2014: government of Sierra Leone officially declares an Ebola outbreak.

In June and July 2014, Ebola cases and deaths in the three countries were rapidly rising and surpassed the dimensions of previous outbreaks, but the WHO was still hesitant to declare a public health emergency of international concern (PHEIC).

- Ebola cases/deaths on May 27: 281/186; rapidly rising in June and July; June 18: 528/337; July 12: 964/603; July 30: 1,440/826, all of them in 2014.
- July 2-3, 2014: WHO called an emergency sub-regional ministerial meeting in Accra (Ghana).
- July 31, 2014: Sierra Leone declares state of emergency.
- August 6, 2014: Liberia declares state of emergency.

Finally, in August 2014, WHO declared a PHEIC and the respective IHR mechanisms were activated, followed by UN activities in September. This marked the starting-point of coordinated measures within the UN system.

- August 8, 2014: WHO/IHR: Declaration of a public health emergency of international concern (PHEIC).
- September 18, 2014: UN Security Council declares the outbreak "a threat to peace" and establishes the UN Mission for Ebola Emergency Response (UNMEER).
- September 30, 2014: The description of a public event on Ebola organized by the British Overseas Development Institute (ODI) talked about "some predicting that more than 500,000 could be infected by the end of January (2015)".[12]

Since early 2015, the intervention of the international community appeared to be successful. The number of cases declined, and by the end of April 2015 there were no cases in Liberia for the preceding 21 days. According to WHO criteria, after a 42 days observation period and additional 90 days

12 See ODI, *Ebola: What more can be done?*, available at https://www.odi.org/events/4033-ebola-more-can-be-done. CDC estimated in September 2014: "Without additional interventions or changes in community behavior, CDC estimates that by January 20, 2015, there will be a total of approximately 550,000 Ebola cases in Liberia and Sierra Leone or 1.4 million if corrections for underreporting are made.", see CDC, *Questions and Answers: Estimating the Future Number of Cases in the Ebola Epidemic—Liberia and Sierra Leone, 2014–2015*, available at http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/qa-mmwr-estimating-future-cases.html.

of enhanced surveillance since the last observed virus transmission, the outbreak is declared to "have ended".[13] Nevertheless, there were a few small outbreaks after that.

- January/February 2015: Rapid decline of cases (October 29, 2014: 2966; November 26, 2014: 2032; January 7, 2015: 1314; February 25, 2015: 397); April 29, 2015: 101 (Liberia: 0).
- May 9, 2015: WHO declared Liberia free of Ebola virus transmission for the first time.
- September 3, 2015: WHO declares end of Ebola outbreak in Liberia.
- November 7, 2015: WHO declares end of Ebola outbreak in Sierra Leone.
- December 29, 2015: WHO declares the end of Ebola outbreak in the Republic of Guinea.
- March 29, 2016: WHO terminated the Public Health Emergency of International Concern (PHEIC).
- April 2016: Three new cases of Ebola in Liberia.
- April 13, 2016: Updated cases/deaths: 28,652/11,325.[14]
- May 2, 2016: Liberia and Guinea discharge final Ebola patients in latest flare-up and begin 42 days of heightened surveillance.

III Has the International Community Failed?

As the timeline shows, it took more than *ten weeks* from the emergence of the disease until the Guinean health system recognized that they needed help in identifying the character of a "strange disease" that in fact has been internationally known for several decades. Considering the breakdown of the health systems during the wars in all three countries between 1989 and 2003 and the extremely small number of medical personnel,[15] such problems of diagnosis of uncommon diseases in remote regions are not really

13 WHO, *Criteria for declaring the end of the Ebola outbreak in Guinea, Liberia or Sierra Leone*, available at http://www.who.int/csr/disease/ebola/declaration-ebola-end/en/.

14 These data include cases in Italy, Mali, Nigeria, Senegal, Spain, UK and the USA, see CDC, *2014 Ebola Outbreak in West Africa - Case Counts,* available at http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html.

15 Ulbert, C, "Die Ebola-Epidemie als Herausforderung für staatliches und internationales Handeln: Diagnose und Lehren" in Kursawe, J, Johannsen, M & Baumgart-Ochse, C et al. (eds.), *Friedensgutachten 2015*, 2015, 215 (218) (based on WHO data).

surprising. NGOs frequently working to support health care in remote regions can be in a favorable position for an early reaction to outbreaks of infectious diseases as was recognized by the CDC in their Outbreak Update on March 31, 2014:

> "Médecins sans Frontières (MSF/Doctors without Borders) is helping the Ministry of Health of Guinea in establishing Ebola treatment centers in the epicenter of the outbreak. In Liberia, several international organizations including the International Red Cross (IRC), Pentecostal Mission Unlimited (PMU)-Liberia, and Samaritan's Purse (SP) Liberia are aiding the Ministry of Health of Liberia by supporting awareness campaigns and providing personal protective equipment (PPE) for healthcare workers."[16]

In fact, support for Ebola treatment in Guinea started in late March and, because of the later spread of the disease, a few weeks later in Liberia and Sierra Leone. Since April, WHO activities had been relatively strong.[17] Then, however, about four more months passed until a coordinated international response was pushed by the decision of WHO to declare a PHEIC according to the International Health Regulations (IHR).

It has to be taken into account, however, that between the 15th and the 20th week in 2014 (mid-April to mid-May) the number of newly reported cases in Guinea was considerably lower than during the weeks before, and that until the beginning of June there were very few new cases in Liberia (none between April 9 and May 27) and Sierra Leone. On May 27, the total cumulative number in the three countries stood at 281 (186 deaths).[18] Therefore, at that time, the quantitative dimension of the outbreak did not surpass a number of former Ebola outbreaks, which always disappeared after a period of a few weeks, because of the tendency of the virus to kill its host before many other people could be infected, and that it does not stay alive very long in surviving people. Ebola had been seen as a "self-limiting" disease.[19] On the other hand, MSF was right calling the outbreak "unprecedented" because of its geographic spread and the inclusion of large cities.

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16 See CDC, *Ebola (Ebola Virus Disease)*, http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/previous-updates.html.

17 See the WHO's report, *A year of the Ebola response "at a glance"*, available at www.who.int/csr/disease/ebola/who-activities-report/en/; see also Kamradt-Scott, A, "WHO's to blame? The World Health Organization and the 2014 Ebola outbreak in West Africa" (2016), 37 *Third World Quarterly*, 1 (4 et seq.).

18 See WHO Regional Office for Africa, *Epidemic and Pandemic Alert and Response,* available at http://bit.ly/2lID0Im.

19 This characterization can be found in many publications. See for example Nave, A, "Ebola" in Gates, H L & Appiah, K A (eds.), *Encyclopedia of Africa* (Oxford

Thus, it is at the same time understandable why nobody expected an outbreak of the dimension it reached a few months later,[20] but on the other hand it has to be considered an incident of insufficient foresight not to have taken those specific characteristics of the West African Ebola epidemic stressed by MSF seriously enough.

The failure of an early and strong reaction to the Ebola outbreak in Guinea that could have prevented the catastrophic turn of events some months later has been the topic of critical assessments and recommendations by many actors in global public health which cannot be discussed in a rather short contribution. Frequently, WHO is held responsible for this failure.[21]

An interesting comparison of nine different assessments commissioned by various actors and group of actors in GHG has been published under the title "Global Response to Health Crisis".[22] There is not sufficient space to discuss all the points raised in more detail. All recommendations refer to the role of WHO and the IHR (which will be taken up further below) and have drawn conclusions linking the Ebola crisis to many aspects of global health. These are very well systematized in the Harvard-LSHTM paper[23] which presents the following rather concrete recommendations:

- Develop a global strategy to invest in, monitor, and sustain national core capacities.
- Strengthen incentives for early reporting of outbreaks.
- Create a unified WHO Centre for Emergency Preparedness and Response.
- Emergency declarations by a transparent, politically protected Standing Emergency Committee.
- Create an independent Accountability Commission for Disease Outbreak Prevention and Response.
- Develop a framework of rules to ensure access to the benefits of research.
- Establish a global facility to finance, accelerate, and prioritize R&D.

Reference, online version 2010), also Flessa, S & Marx, M, "Ebola fever epidemic 2014: a call for sustainable health and development policies" (2015), 17 *The European Journal of Health Economics*, 1 (1).

20 See Interview with Bausch, D, "Glimmers of hope on the Ebola front" (2014), 92 *Bulletin of the World Health Organization*, 704 (704 et seq.).

21 See for example Ulbert, "Die Ebola-Epidemie als Herausforderung für staatliches und internationales Handeln", above Fn. 15; see also Moon, Sridhar & Pate et al., "Will Ebola change the game?", above Fn. 1, 2206.

22 Global response to health crisis, *A Comparison of Expert Recommendations*, above Fn. 5.

23 Moon, Sridhar & Pate et al., "Will Ebola change the game?", above Fn. 1.

The "Commission on Creating a Global Health Risk Framework for the Future" puts strong emphasis on the role of public health systems as "the first line of defence" against pandemics, to be supplemented by "strengthening the global and regional system for outbreak preparedness, alert and response" and "accelerating research and development to counter the threat of infectious diseases".[24] A group of scholars from the University of Sydney, the LSHTM and the Queen Mary University of London stresses the importance of civil-military relations in the case of Ebola outbreak and demands an "independent research program to systematically investigate the roles and functions that military-based actors can perform".[25] Other reports deal with the role of the G7[26] and the European Union, which besides the general demands to improve global governance and coordination mechanisms (based on the WHO and the IHR) and to strengthen health systems, call for improving "EU preparation to tackle future outbreaks, including increasing cooperation among its Member States".[27]

The author of the comparative report points[28] to a neglect of socio-cultural and political dimensions in the assessment reports presented. In my contribution, the main focus will be on the character of global health governance as a complex system within the "international community" reacting to various types of health challenges in a flexible, but not necessarily optimal way. This has to be seen in relation to the difficulties to anticipate the course a particular outbreak will take, which depends on the specific socio-cultural and political context in which an outbreak occurs.[29]

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24 See Sands, P, Mundaca-Shah, C & Dzau, V J, "The Neglected Dimension of Global Security – A Framework for Countering Infectious Diseases" (2016), 374 *The New England Journal of Medicine*, 1281 (1283).

25 See Kamradt-Scott, A, Harman, S & Wenham, C et al., *Saving Lives: The civil-military response to the 2014 Ebola outbreak in West Africa*, 2015, 2.

26 See Declaration of the G7 Health Ministers, *Think Ahead. Act Together*, October 8-9, 2015, available at http://bit.ly/2kPrwnl.

27 See (a) Conference Report, available at http://ec.europa.eu/health/preparedness_response/docs/ev_20151012_sr_en.pdf and (b) (for the quote): Council Conclusion, available at http://bit.ly/2kPlcMj.

28 Presumably *Mathias B. Bonk*, the organizer of the website Think Global Health, above Fn. 5.

29 Flessa & Marx, "Ebola fever epidemic 2014", above Fn. 19, refer to various factors in West Africa which favored a rapid spread of the epidemic (funeral rites, weak health care systems after two decades of civil war and rather high mobility between rural and urban population); see also the contribution of *Michael Marx*, "Ebola Epidemic 2014-2015: Taking Control or Being Trapped in the Logic of Failure – What Lessons Can Be Learned?" in this volume.

1 Multi-actor Character of GHG

GHG is characterized by a complex interaction of quite different types of actors pursuing the aim of improving health at different spatial levels and in different fields.[30] The multiplicity of actors has created problems of co-ordination frequently referred to, but it also implies advantages of a great flexibility. While state actors might be hampered by bureaucratic hurdles, and international governmental organizations might have problems to reach consensus before taking large-scale actions, many NGOs are in a position to respond swiftly and to raise international public attention – although in most cases they are restrained by their financial means.

The multi-actor character of GHG played an important role in the early phase: MSF, as the most important NGO during this outbreak, played an outstanding role, particularly in the early phase; other agencies have already been referred to. In addition to WHO's activities, the advantages of GHG's multi-actor activities – including Humanitarian Aid from many states, International Organizations (like the UN Office for the Coordination of Humanitarian Affairs), health NGOs and philanthropies – have been confirmed since the end of March 2014, and considerable amounts of resources in the fight against Ebola were mobilized. MSF alone spent nearly US$ 113.7 million from March 2014 to December 2015[31] and was the first organization to fully react to the Ebola outbreak in Guinea in March. On the whole, the international community did react in a rather broad way to the situation in West Africa, but these activities could not make up for a coordinated, much better financed "emergency response" after the declaration of a PHEIC. The contribution of sub-regional organizations, the West African Health Organisation (WAHO) and the ECOWAS commission, to the concrete fight against the outbreak, was close to negligible.[32]

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30 On GHG see the texts quoted below, above Fn. 6.

31 MSF, *Ebola 2014-2015 Facts & Figures. Key financial data on MSF's response to the Ebola epidemic in West Africa*, 2, available at http://www.msf.org/sites/msf.org/files/ebola_accountability_report_low_res.pdf. US$ 91.1 million were raised from private donations, US$ 22.6 million from public institutional funders (8). Data are converted into US$ at the exchange rate of December 31, 2015.

32 See the contribution of *Edefe Ojomo*, "Fostering Regional Health Governance in West Africa: The Role of the WAHO" in this volume; Nsoedo, E E, "The Ebola Crisis in the West African Region: Should It Have Been So Severe?" (2014), 2 *Open Journal of Social Sciences*, 98.

2 WHO Responses and the Late Declaration of a PHEIC

There was a prompt reaction by WHO to the Ebola Outbreak in Guinea. The first team drawn from institutional partners in the WHO Global Outbreak Alert and Response Network (GOARN) travelled to Guinea on March 28, 2014; on the same day, WHO stated that the Emerging and Dangerous Pathogens Laboratory Network was coordinating international reference laboratory support, sent clinical teams, provided advice and training to local health institutions, and developed contact-tracing activities, among others.[33] *Kamradt-Scott* stressed that the WHO secretariat had deployed 113 experts to West Africa within six weeks of the outbreak being confirmed (significantly more than in the case of earlier outbreaks of Ebola), which "suggests that the IO's initial response was at least reasonable and arguably defensible".[34] Until January 2016, WHO had deployed nearly 4.000 technical experts (including Ebola vaccination teams) and 45 laboratories.[35]
In reaction to rising numbers of Ebola cases in June, on July 2-3, 2014, WHO summoned an emergency sub-regional Ministerial meeting in Accra, Ghana, and a Sub-regional Ebola Outbreak Coordination Centre (SEOCC) was established in Conakry with a number of partners – GOARN, CDC, MSF, UNICEF, IFRC, Institute Pasteur of Dakar, Save the Children, Plan Guinea, and others.[36] In the Communiqué[37] Governments were asked to "continue to build and strengthen IHR core capacities, especially those needed to respond to serious public health events". Additionally, "the ministers of health agreed that the current situation poses a serious threat to all countries in the sub-region and beyond and therefore called for immediate action", which can be seen as a call for the declaration of a PHEIC.

For emergency operations, WHO depends on extraordinary funds[38]: Certainly the declaration of a PHEIC constitutes an important instrument to

33 On early WHO activities in West Africa, see http://www.who.int/features/2014/preventing-ebola/en/. Also, http://who.int/csr/disease/ebola/en/.
34 Kamradt-Scott, "WHO's to blame?", above Fn. 17, 5.
35 See WHO, *Progress in the Ebola response,* available at http://www.who.int/csr/disease/ebola/response/infographic/en/.
36 See WHO, *Ebola virus disease, West Africa - update,* available at http://www.who.int/csr/don/2014_07_31_ebola/en/.
37 WHO-Afro, *Communiqué (3 July 2014)*, available http://bit.ly/2lbIVCM.
38 That is one of the main points of the WHO Report of the Ebola Interim Assessment Panel, available at http://www.who.int/csr/resources/publications/ebola/report-by-panel.pdf?ua=1, 16 et seq.; see also further below. See also WHO, *Review*

mobilize international support. Thus, it is not surprising that donations for "Ebola Response Funding" went up considerably after August 8, 2014. Nevertheless, while the monthly average between August 2014 and the end of December 2015 was around US $24 million, it had previously reached (from March 22 to August 7) an average of about US $11 million. WHO (and the international community in providing funds) in fact responded strongly – in correspondence to its limited financial means – already in the months before August 8.[39]

Nevertheless, WHO took over its full coordination role[40] only after the declaration of a PHEIC in August. Later on, coordination was additionally strengthened by the UN Security Council Meeting on September 18 and the establishment of UNMEER, which took over the task of overall planning and coordination, directing the efforts of the UN agencies, national governments, and other humanitarian actors to the areas where they were most needed.

The question remains: why was the PHEIC declared only 4 ½ months after Guinea's declaration of an Ebola outbreak, and about 2 months after case numbers began to grow rapidly? A PHEIC is defined by Article 1 of the International Health Regulations as

> "an extraordinary event which is determined to […] constitute a public health risk to other States through the international spread of disease and […] to potentially require a coordinated international response".[41]

Annex 1 of the IHR determines the "Core Capacity Requirements for Surveillance and Response" which all State Parties have to meet, which include (at "the local community level and/or primary public health response level") "clinical descriptions, laboratory results, sources and type of risk, numbers of human cases and deaths, conditions affecting the spread of the disease and the health measures employed". According to Article 44(2) IHR, WHO should collaborate "in the provision or facilitation of technical cooperation and logistical support to States Parties"; and "the mobilization of financial resources to support developing countries in building, strengthening and maintaining the capacities provided for in Annex 1". Guinea, Liberia, and

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Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response, above Fn. 8, para. 160.

39 Own calculation from WHO, *Ebola response funding*, available at http://www.who.int/csr/disease/ebola/funding/en/.

40 According to Article 2(a) of its Constitution: "WHO is the directing and co-ordinating authority on international health work".

41 WHO, *International Health Regulations*, 3rd edition, 2016, available at http://www.who.int/ihr/publications/9789241580496/en/.

Sierra Leone were far from disposing of these capacities. For example, national IHR focal points should have been developed in each Member State; while the IHR focal point in Nigeria had been involved in information about the first suspected case of Ebola in the country at the end of July 2014, no comparable information on focal points in Guinea, Liberia and Sierra Leone could be found. However, in July, as mentioned before, WHO had established the SEOCC.

Nevertheless, taking into account the first appearance of Ebola in a big city like Conakry with about 2 million inhabitants and severe infrastructure problems, and (from early June onwards) the rising number of confirmed cases in Liberia and Sierra Leone, it is surprising that the IHR system did not react earlier to the Ebola threat. There have been many reproaches that such an action could have helped to prevent the explosive growth of the Ebola epidemics in the second half of 2015. This has also been pointed out by the WHO Ebola Interim Assessment Panel.[42]

During its special session on Ebola in January 2015, the WHO Executive Board requested an interim assessment by an independent expert panel "on all aspects on WHO's response to the Ebola outbreak". The Report of the Panel[43] referred to the following factors delaying the declaration of a PHEIC:

> "A late understanding of the context and nature of this Ebola outbreak, which was different from previous outbreaks; unreliable reporting on the spread of the virus; problems with information flow and decision-making within WHO; and difficult negotiations with countries." (Paragraph 22, Box)[44]

The Panel also pointed out that WHO had been criticized for declaring a PHEIC for pandemic influenza H1N1 ("swine flu"). The "swine flu" turned out to be a rather mild form of flu, but this declaration rapidly led to a stockpiling of anti-viral medicines (such as Tamiflu) and thus resulted in considerable revenues for the respective pharmaceutical corporations.[45]

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42 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 10.

43 Ibid. The following quotes are from the indicated paragraphs of this Report.

44 It is surprising that the difference from previous outbreaks was understood by MSF already in late March.

45 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 22, Box. See for more details WHO, *Review Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response*, above Fn. 8. Feinberg, H V (chair), *Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1)*, 2009.

The Panel also noted the problem that the IHR only allows for "binary decisions": Either a PHEIC is declared or it is not. It recommended to "consider the possibility of an intermediate level that would alert and engage the wider international community at an earlier stage in a health crisis".[46] Furthermore, the Panel proposed to improve WHO's emergency response capacity in particular "in situations involving fragile states"[47] and recommended setting up a unified "WHO Centre for Health Emergency Preparedness and Response".[48] To finance such a center, the World Health Assembly (WHA) should reconsider its zero nominal growth policy with respect to assessed contributions, hence the proposal to increase this amount by 5 %.[49] In addition, a contingency fund to finance WHO's initial response to an emergency should be set up as decided by WHA 2015, based on voluntary contributions with a target capitalization of US $100 million (Paragraph 37).[50]

Assessments refer to the importance of regional organizations, but mostly to the role of the WHO Regional Office for Africa. Critique has to take into account that the core team for outbreaks and emergencies consists of fewer than ten people for the whole region (Paragraph 45).[51] WAHO/ECOWAS, as a sub-regional organization for health, is not even mentioned in most reports.

IV The International Community, Global Health Care and Emergency Response

To better understand the role of GHG in the context of infectious disease outbreaks, three factors with varying time scales are important to consider.

(1) A broad scope of actors in GHG (such as: NGOs, philanthropic organizations, medical research institutes) act at rapid notice, are present in

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46 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 23.

47 Ibid., para. 30.

48 Ibid., para. 31-34. See also the Report by the Director-General to the World Health Assembly, A 69/30, May 2016, especially para. 5-7.

49 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 36. See also WHO, *Review Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response*, above Fn. 8, para. 160, demanding "an increase in assessed contributions to the WHO budget".

50 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 37, and WHO, *Review Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response*, above Fn. 8, para. 128.

51 WHO, *Report of the Ebola Interim Assessment Panel*, above Fn. 2, para. 45.

many regions, have growing resources at their disposal, act with a high degree of compassion, but are not in a position to successfully fight an extended emergency like the Ebola outbreak by themselves. As in the case of Guinea, NGOs such as MSF can substitute for a lack of expertise among national public health institutions, and mobilize partners among global health actors.

(2) As for international emergency mechanisms such as the IHR, it would be interesting to have a closer look at declarations of PHEICs related to the IHR's 2005 version by comparing the decisions on other outbreaks, such as the Severe Acute Respiratory Syndrome (SARS) (in anticipation of the rules of IHR 2005, which in 2003 were not yet fully negotiated); the "Swine Flu" (Influenza H1N1); the Wild Poliovirus; the Zika Virus, and the Middle East Respiratory Syndrome (MERS) (the subject of various discussions in the IHR Emergency Committee, but not "accepted" as a PHEIC).[52] The cases at hand leave the impression that a PHEIC is only mobilized if an outbreak is seen to produce risks for developed countries – this could explain why MERS, for example, has not been declared a PHEIC and the declaration of Ebola was delayed.[53] Improving transparency in the working of the Emergency Committee could disperse such suspicions. The declaration of a PHEIC ought to be independent from Member States' interests as it rests on the authority and responsibility of the Director General of WHO and is based on recommendations of an ad-hoc Emergency Committee, convened by him or her from a list of independent experts. The Harvard-LSHTM Panel recommends the creation of a Standing Emergency Committee with the mandate to declare a PHEIC. The Committee's first members should be appointed by the Director General following an open call for nominations. The Committee would periodically vote-in new members, and would publish minutes and votes immediately after each meeting to guarantee transparency.[54] The IHR Review Committee took over the idea of a

52 See for more details the contribution of *Pedro A. Villarreal*, "The World Health Organization's Governance Framework in Disease Outbreaks: A Legal Perspective" in this volume.

53 See the attention paid in the US on three cases of imported Ebola in nurses (where one of them was infected in the US) that occurred in September/October, which left the impression that averting the risk of infections in the US was an equally serious task as controlling Ebola in West Africa. See news reports in October 2014, for example CBS, "Obama acknowledges Ebola missteps" (October 16, 2014), available at http://cbsn.ws/2lynsVF.

54 Moon, Sridhar & Pate et al., "Will Ebola change the game?", above Fn. 1, 2212.

standing committee, but in the form of a standing *advisory* committee, leaving the authority to declare a PHEIC with the WHO Director General. This committee would also have an important advisory role to declare an intermediate level of alert, an "International Public Health Alert" (IPHA). The purpose and criteria for IPHAs and PHEICs should be defined by WHO "in a publicly accessible manual" which also ought to define "the operational and financial consequences they trigger".[55]

(3) Problems of developing countries' health systems have to be addressed with more urgency. The provisions in the IHR 2005 on supporting emergency surveillance and reaction capacities in developing countries have not materialized so far. In addition, infectious diseases which primarily affect Least Developed Countries (LDCs) are frequently treated as "business as usual", such as Malaria, Tuberculosis and other tropical diseases.[56] However, an effective "emergency response" depends on capacities of health systems all over the world. A functioning primary health care system in Guinea could have considerably accelerated the diagnosis of Ebola to a point where the virus could have been contained before it had reached Conakry – taking into account that there were reports on Ebola ("strange disease") in remote regions in February 2014, but in Conakry only in the second half of March,[57] and furthermore the "self-limiting" character of the disease.[58] It could have also helped to gain more confidence in emergency interventions among the local population and to reduce problems of coordination of many actors.

The improvement of mechanisms to detect and confirm emergencies, and in particular capacities to fight diseases, are dependent upon functioning health systems. If there are no capacities (knowledge, physical facilities and financial means) to deal with ongoing health problems, the pre-conditions for effective emergency responses are also missing. This is a global task, not only because many infectious diseases constitute a global threat, but

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55 WHO, *Review Committee on the Role of the IHR (2005) in the Ebola Outbreak and Response*, above Fn. 8, Recommendation 6 (quotes from 6.2).

56 There are a number of health partnerships supporting the fight against these diseases, such as Roll Back Malaria and Stop TB, which are dealing with them as persistent problems and do not reach a similarly high level of public attention as emergency responses.

57 See Rico, A, Brody, D & Coronado, F et al., "Epidemiology of Epidemic Ebola Virus Disease in Conakry and Surrounding Prefectures, Guinea, 2014–2015" (2016), 22 *Emerging Infectious Diseases*, 178 (180), available at http://wwwnc.cdc.gov/eid/article/22/2/15-1304_article.

58 See above section III.

also because we are living in "globalizing societies". Providing Global Public Goods[59] (such as an internationally guaranteed minimum standard of health care or an effective control of infectious diseases) is costly and produces conflicts with national politics, national elites and local cultures. In the face of various severe global problems, we can observe a greater readiness to share resources, but the impact depends on a broad consensus about the role of actors and institutions in global politics on the one hand, and processes of social and political change in the countries concerned on the other. Global society and global institutions should facilitate an improvement of national health systems. Likewise, in order to prevent such processes getting stuck in conflicts and corruption at the national level and also to pool regional resources, sub-regional institutions[60] such as WAHO and ECOWAS might be suitable mediating points – even though their capacity to actively intervene in the West African Ebola crisis had been very limited.[61] It remains to be seen whether this last circumstance will change with the recent creation of the ECOWAS Regional Centre for Disease Control (RCDC), which includes an active participation by WAHO officials in its decision-making processes.[62] Along the same lines, the African Union has developed an African Centre for Disease Control in Abudja/Nigeria, with its own Regional Collaborating Centers in Kenya, Nigeria, Gabon, Egypt and Zambia.[63]

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59 See for example Smith, R, Beaglehole, R & Woodward, D et al. (eds.), *Global Public Goods for Health. Health economic and public health perspective*, 2003; Smith, R D, Woodward, D & Acharya, A et al., "Communicable Disease Control: a 'Global Public Good' perspective" (2004), 19 *Health Policy and Planning*, 271.

60 In the UN system "regional" institutions are those on a continental scale (such as WHO AFRO).

61 See the contribution of *Edefe Ojomo*, "Fostering Regional Health Governance in West Africa: The Role of the WAHO" in this volume.

62 WAHO Director-General also acts as Chairman of the Governing Board of the ECOWAS RCDC. For instance, see WAHO, "Prof Nasidi heads ECOWAS Centre for Disease Control", *Latest News*, available at http://www.wahooas.org/spip.php?article1318&lang=en. Also Federal Ministry of Health of Nigeria, *FG Inaugurates Governing Board of the ECOWAS Regional Centre for Disease Control (RCDC)*, available at http://bit.ly/2l2PuGZ.

63 A director in charge of the AU Commission for Social Affairs declared in March 2016: "We are satisfied with our findings that Nigeria can be able to take on the triple responsibility of running the Nigeria-CDC, the Regional-CDC and African-CDC", see Audu, O, "AU approves Nigeria's Centre for Disease Control as regional hub" (March 13, 2016), *Premium Times*, available at http://bit.ly/1Ufo9jL; see also African Union, "1st Governing Board Meeting of the Africa Center for

What could be the role of WHO in such a process? In spite of its foundation as the "directing and co-ordinating authority on international health work", WHO is (like other intergovernmental organizations) not an independent actor, insofar as it is dependent on finance from Member States, its decision-making processes are based on Member States' positions and it is not a financing institution (as the World Bank is).[64] Its effectiveness depends to a large degree on the cooperation of Member States, which has been rather unstable during recent decades.[65] We have to take into account that global capacities for emergency responses and the attainment of minimum standards in international health care are interdependent. Working to improve health care standards, however, cannot substitute for a system of emergency response (a) because of the different time-horizons of realizing both goals and (b) because of the need to overcome national egoisms in preventing the global spread of diseases.[66]

V All is Well that Ends Well?

Reconsidering the sequence of events around the Ebola outbreak, the sometimes devastating criticisms on the apparently slow reaction of the international community to the West African Ebola outbreak seem to be misleading. In this contribution, it was argued that due to the unprecedented

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Disease Control and Prevention Endorses Five Regional Collaborating Centers", *Press Release of May 13, 2016*, available at http://bit.ly/2kPo7oo.

64 Taking-up its role as a financing institution, the World Bank launched in May 2016 the Pandemic Emergency Facility as an insurance for poor countries in cases of an pandemic outbreak (providing coverage of about US $500 million), in cooperation with WHO and reinsurance companies. See Tyson, J, "Inside the World Bank's Pandemic Emergency Facility" (May 23, 2016), *Devex Newswire*, available at http://bit.ly/1Rk49pw.

65 Hein, W, "A United Nations Global Health Panel for Global Health Governance: A commentary on Mackey" (2013), 76 *Social Science & Medicine*, 18; Kickbusch, I, Hein, W & Silberschmidt, G, "Addressing Global Health Governance Challenges through a New Mechanism: The Proposal for a Committee C of the World Health Assembly" (2010), 38 *Journal of Law, Medicine & Ethics*, 550.

66 See Global response to health crisis, *A Comparison of Expert Recommendations following the Ebola-Outbreak in West Africa*, above Fn. 5; one of the concluding questions asked by the author (15) is: "Who is WHO? […] It needs to be re-emphasized that WHO consists not only of a group of people at the Geneva headquarters, but also of 194 Member States, 34 board members, 6 Regional and 150 Country offices."

character of this epidemic and the disastrous state of local health systems, it was in fact difficult to anticipate the scale of the outbreak at an early stage, despite MSF's alert that the outbreak could expand (spread over a larger region than earlier Ebola outbreaks, in particular into large cities).

On the other hand, rather early after the declaration of the PHEIC and the UN Security Council meeting, voices appeared – in particular in the US – praising the comprehensive effort to fight the disease, among others in a Fact Sheet by the White House,[67] and the "unprecedented coordination" which succeeded in controlling the outbreak.[68] The CDC commented in a document on the eventual control of the outbreak: "Not only has this epidemic been unprecedented, but so has the public health response launched by CDC and its partners."[69] The 2014 Health Security Report of CDC included no (self-)critical comments concerning the slow start of a strong response to the outbreak in its section on the "2014 Ebola Response".[70] Similarly, WHO statements in 2016 – after the end of the PHEIC had been declared – praised the success of international cooperation. In its updated version (of January 2016), the web page "Ebola Response in Action" takes July 2014 as a starting-point and simply ignores the "lost months" before:

> "Since July 2014 unparalleled progress has been made in establishing systems and tools that allowed us to respond rapidly and effectively. Thanks to the diligence and dedication of tens of thousands of responders, scientists, researchers, developers, volunteers, and manufacturers, we now have diagnostics, a vaccine, registered foreign medical teams, and thousands of trained responders who can rapidly deploy to outbreaks."[71]

There could be a certain risk that political attention to all the recommendations made in response to the Health Crisis will decline again due to the final success of controlling the outbreak – after nearly two years and after

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67 The White House. Office of the Press Secretary, *Fact Sheet: U.S. Response to the Ebola Epidemic in West Africa*, September 16, 2014, available at http://bit.ly/2mfkyVx.

68 USAID, "Unprecedented Coordination Helped Turn the Tide of an Unprecedented Outbreak", statement posted by Pendarvis, J, *Impact Blog on Emerging Infectious Diseases*, December 15, 2015, available at http://bit.ly/1Ou0UM0.

69 CDC, *The Road to Zero: CDC's Response to the West African Ebola Epidemic*, 2014-2015, available at http://www.cdc.gov/about/pdf/ebola/ebola-photobook-070915.pdf.

70 CDC, *2014 Health Security Report. 2014 Ebola Response*, July 31, 2015, available at http://www.cdc.gov/about/report/2014/2014-ebola-response.html.

71 WHO, *Ebola Response in Action*, January 2016, available at http://apps.who.int/ebola/our-work/achievements.

more than 10.000 deaths. It would not be the first case of "pandemic fatigue", leading to a loss of momentum, when "the memory of what happened will fade".[72] Nevertheless, for the time being, the global health community continues discussing large number of reviews and critical assessments of the response of the international community to the West African Ebola outbreak presented by the diverse actors in GHG and (quite incompletely) referred to in section III.[73] A certain tendency to focus on "health security" can be observed. In an article on the treatment of health in the 2015 G7 meeting, *Garrett W. Brown* commented "that there has been little movement to rectify the lack of global preparedness since the Ebola outbreak", and criticized that most of the G7 discussions and commitments centered on the Global Health Security agenda.

> "[…] the securitization of health by the G7 might do little to address the key determinants of health that often cause mass scale epidemics, since security approaches often focus on symptoms rather than causes and reduce health system strengthening to issues of containment rather than tackling the root causes of epidemics associated with weak health systems."[74]

Those recommendations, however, require long negotiations and a sustained readiness among high-income countries, which had not been directly affected by the epidemics, to support the Global Public Good of "infectious disease control" through financial support, training and sharing knowledge.

Can we expect that after "learning the lessons" of the human catastrophe of the West African Ebola outbreak a similar event will not occur again? Certainly, the international community has learnt that nature is presenting us with ever new challenges concerning the appearance of pathogens and ways of transmission henceforth unknown. However, the problems of health system development, lack of research and development in the field of most infectious diseases (including anti-microbial resistance) and an extremely unequal access to the benefits of research, are man-made. During the last two decades, they have played an important role in global health discourses but have only led to quite limited achievements. The improvement of emergency mechanisms and emergency funds in response to the Ebola epidemic should be able to strengthen preparedness in the case of

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72 Dumiak, M, "Push needed for pandemic planning" (2012), 90 *Bulletin of the World Health Organization*, 800 (800 et seq.).

73 See website Think Global Health, above Fn. 5; an even larger list of 45 reviews is published by the WHO, *WHO evaluation department*, available at http://bit.ly/2maJiS9.

74 Brown, G W, "The 2015 G7 summit: A missed opportunity for global health leadership" (2015), *Global policy/Global Leadership Initiative,* June 9, 2015, available at http://bit.ly/2m884lR.

further outbreaks. However, a sustained commitment not only by the epistemic and political community, but also by the larger public is needed to raise sufficient financial means and to reach an equitable distribution of these means to strengthen the foundations of global health.