CHAPTER 8

Lessons Learned and Reordering Policy Prescriptions

Abstract The final Chapter 8 offers practical policy suggestions towards (re)ordering health. It takes into account that not all health rights and threats are of the same caliber, that prioritization is a necessity. It also acknowledges that not all risks and threats can be anticipated or annulled. Bearing these limitations in mind, the chapter re-frames health risks in terms of a re-ordering of health security at the level of local, national, and global policy. It also offers theoretical as well as concrete suggestions on how it might be possible to conceptualize, communicate, and confront health risks and threats with states, non-state actors and other agents to facilitate health rights responsibility within and across borders.

Keywords Re-order · Identify · Prioritize · Rights · Responsibilities

The eighth and final chapter offers practical policy suggestions towards (re)ordering health. These treat the framing of a health threat and its inclusion onto a/the policy agenda locally, nationally and globally, as well as concrete suggestions on communication and the deployment of military as well as non-state actor intervenors.

With regard to framing, notable dimensions include:
One—a real health threat must be distinguished from fear of a health threat, notably as an outbreak of infectious disease, especially when the latter results in catastrophic border closings or similarly exacerbating policies.

Two—the initial identification of a health risk or threat must be verified. Identification is important for a number of reasons: first, to exclude other kinds of threats; second, to understand modes of transmission, possible scope of an outbreak; and, third, to ascertain options for transmission interruption and prevention. Lice (which can carry typhus) could be dandruff until seen under a magnifying glass.

Three—it is necessary to prioritize. Health threats, health challenges, and health risks are ubiquitous.

Four—where an outbreak occurs, under what conditions, and by which means a transmissible infection can be spread defines any possible response: lice must be removed from hair; mosquitoes must be kept from biting; salmonella and cholera require plentiful, treated and accessible water; polio, measles, mumps, whooping cough and others can be stayed through herd-level immunization; HIV can be treated with ARVs. H5N1, SARS, and Mers-CoV can be contained via isolation. Ebola requires both isolation and supportive intervention. Zika requires both immunity over a long period of time, such as young girls overcoming the virus transmitted by a mosquito bite at a young age to protect their later offspring, and an interruption of that same mosquito transmission. In all cases, prevention is key.

Each of these responses is operational at all of the levels of analysis outlined above: individual, communal, national and international. When and where an outbreak spreads beyond the coping strategies of a local community, and especially when it does so beyond those of the national state, the scope of response expands exponentially. It is at this intersection of responsibilities—local/national and national/international, that the question of intervention by militaries may enter the equation.

This is because in contrast to NGOs and NSAs, which are equipped to provide a service and support health(care) security within the rubric of an existing national structure, militaries are geared towards establishing that structure where it is either fragile or non-existent. In other words, MSF

---

1 As opposed to a non-communicable disease or sometimes so-called lifestyle disease, such as cardiovascular (heart) disease, diabetes, obesity or cancer (some of which, recent research shows, are transmissible).
could provide Ebola care in Guinea as long as the outbreak was either small enough for their facilities and tracers to be able to follow contacts and administer care, or the national state was able to make up any difference. As the case proved, the first option existed until the scope of the epidemic exceeded MSF’s capacities. The Guinean state was overwhelmed from the outset. MSF called for foreign military intervention then to bridge the gap in local/national incapacity with international structural—logistical—aid in the form of military support.

The debate that opened up in the wake of MSF’s call mixed two elements of intervention—that generally provided by NGOs and NSAs, and that plausibly delivered by militaries—all under the guise of military intervention. Instead, as both Gertler and Michael Edelstein point out, a distinction might be made between outbreak control, humanitarian aid and military intervention/support. Yet such differentiation is not always possible, especially when outbreak control is necessarily part and parcel of a (military) stabilization mission with humanitarian elements, such as clean water and sanitation services, and a longer-term commitment to health systems strengthening.

As Gertler notes, MSF’s request for medical support on the part of international military intervention to assist in responding to Ebola was driven by despair. Military deployment that provides logistical support, as in building hospitals, is different than one (armed) to enforce a quarantine, and different again from one comprising health specialists providing treatment and care. Although Gertler acknowledges the huge political reverberations caused by that call, he would do it again in a similar situation. Yet, the military disappointed. It took much longer to arrive than anticipated, hamstrung by national security rules. Nonetheless, Gertler argues that despite this, that sending and resending the same NGO/NSA volunteers presents a riskier strategy. According to Gertler, the best-case scenario would align with the IHR recommendations and see greater national and international investment in civilian health capacity.

An attempt to bridge the two options might be to have national states, as member states of the WHO, sign preemptive agreements which foresee military intervention in the event that civilian actors, both national and non-state, invoke the need. Such preliminary agreements might have two

---

2 MSF/Institute of Tropical Medicine and International Health Berlin, Interview June 8, 2016.
effects: first, to accelerate investment in civilian capacity to forestall the need for such an intervention having to be invoked; second, to establish prior to the event, which foreign militaries might come to the aid of which nations, for how long, and under what conditions. This might also prevent the national or international abuse of states of emergency or uninvited military intervention in the name of “security.”

For instance, a number of regions of Brazil “proactively declared a public health emergency with regard to Zika in November 2015.”\(^3\) If and when the expanded political, and military, powers granted under the emergency are not revoked, this could lead to serious infringement of biological and civil liberties.

In an ideal world, where all relevant actors, states, member states, NGOs/NSAs and legal frameworks align in their aims and strategies for response, disease outbreaks could be readily identified and contained. However, as the case studies analyzed in this book show, this has not happened.

Personal proclivities against vaccines, prejudice against marginalized persons, incompatible reporting systems and political prioritizations get in the way. NGOs and NSAs may—or not—step into the void left by unresponsive states. The international community, represented by international organizations, notably the WHO, might on occasion be able to overcome these challenges. Or it may not be able to do so and instead need to change, reform. In order to take stock of the current situation regarding the adequacy of individual, local, national, international and global response to disease outbreaks and potential epidemics /pandemics, it is useful to review what the previous chapters yield in terms of lessons learned.

**Lessons Learned**

Each of the outbreaks introduced and analyzed throughout this book reinforce two key principles. First, local outbreaks can and do rapidly spread to become epidemics and even pandemics. Given increasingly mobile populations, this trend is set to increase. Second, knowledge and

\(^3\) Gostin, Lawrence O. and Daniel Lucey. (2016). “The Emerging Zika Pandemic: Enhancing Preparedness,” *JAMA*, Vol. 315, Issue 9, 865–866. doi: 10.1007/978-3-319-52006-3_7.
information collected at the global level has the potential to both inform local preparedness and to mobilize in turn global and local resources in a joint response. The response itself has the highest chance of proving successful when it includes local, national, international and global coordination.

Health is considered the sovereign responsibility of countries, however, the means to fulfil this responsibility are increasingly global. The International Health Regulations (2005) constitute the essential vehicle for this action. The International Health Regulations were revised a decade ago in order to better protect global health security—specifically, with the aim to prevent, protect against, control and respond to the international spread of disease while avoiding unnecessary interference with international traffic and trade.4

The provision to protect international traffic and trade has a both a history worth mentioning and a future worth protecting. Historically, as seen with regard to Indonesia and its invocation of “viral sovereignty,” as well as in the initial reactions to the EVD pandemic in West Africa, above, fear of suffering (catastrophic) economic and reputational losses due to a declared outbreak was, for a long time, a reason for states to desist from doing so. Thus, in order to incentivize them to report outbreak threats and/or outbreaks, the IHR included the above provision to protect international traffic and trade. With a view toward the future, and as again seen with respect to the international responses mounted to EVD and current to Zika, it becomes clear that international traffic—such as for the Olympic Games—and trade, including in and of medications, play prominent, paramount roles in any disease response. More significant at this stage of Zika appears to be the expansion of the mosquito territories, spreading the virus with it. As such, international traffic and trade, but also vector presence, are both intrinsically and instrumentally tied to disease response and the protection of health.

Given this background and the growing threat especially of EIDs (emerging infectious diseases), lessons learned have been collated by a number of

4 WHO, “Report of the Ebola Interim Assessment Panel—July 2015,” available at: http://www.who.int/csr/resources/publications/ebola/report-by-panel.pdf?ua=1.
(inter)national health experts in panels, committees, and interviews. The most important lessons learned that they offer are presented here.

The *Report of the Ebola Interim Assessment Panel*, published in July 2015, highlights the crisis resulting from the lack of commitment of states to meeting their IHR obligations as critical to learning a lesson. It argues that the failure to do so not only contributed to the uncontrolled spread of Ebola in 2014 and 2015, but is also posed to do the same in the face of a future EID. Consequently the panel concludes that “WHO should be the lead health emergency response agency.”

Interviews conducted with Dr. Michael Edelstein of Chatham House London on April 1, 2016, and on May 18, 2016 with Dr. Rüdiger Krech of the WHO, reinforce the lesson that the WHO is the only legitimate actor on the international state which should respond to health crises. As Edelstein notes, lessons from the preceding outbreaks reinforce the need for the WHO to be the lead actor and agency, not just one in a quagmire of parallel responding processes.

Each also raise further the red flag that is WHO funding with regard to its function as the lead health emergency response agency: less than 25 percent of the WHO’s program budget comes from “assessed contributions”—the amount of money each member state is calculated (assessed) to equitably pay according to its per capita gross domestic product (GDP). Critically, these monies are for use at the WHO’s discretion. Laurie Garrett notes that raising these politically charged assessments, which affect all 194 member states, “has not reached the floor for a vote for over thirty-nine years, meaning that when adjusted for inflation, the WHO basic operating budget has declined steadily for decades.” The other 75 percent of the WHO’s funding comes from “voluntary funds,” many of which stipulate what they may be used for. “There are no funds for emergency response.” For an agency whose existence is predicated on

---

5 Ibid.

6 Garrett, Laurie. “Garrett on Global Health: 23 May 2016” Council on Foreign Relations, available at: [http://www.cfr.org/about/newsletters/archive/newsletter/n3795](http://www.cfr.org/about/newsletters/archive/newsletter/n3795).

7 WHO, “Report of the Ebola Interim Assessment Panel – July 2015,” available at: [http://www.who.int/csr/resources/publications/ebola/report-by-panel.pdf?ua=1](http://www.who.int/csr/resources/publications/ebola/report-by-panel.pdf?ua=1).
its ability to respond to and coordinate response to health emergencies, this is a wake-up call to return to its core focus.

As such, the lesson is twofold. One, the WHO itself has a role to play with and for its member states, and requires a renewed push to acquire the means to play it. Two, the crisis reinforces the reality that states are the key stakeholders in health response. In order for them to be able to respond to disease outbreaks, they themselves need core capacity, as stipulated by the IHRs; and the WHO needs to be able to provide the necessary information and deploy any emergency personnel to stem an outbreak where a member state is incapable.

This leads to a number of lessons learned. Five, to be precise.

First, disease outbreaks, even epidemics and pandemics, do not need to lead to state collapse.

Even today epidemics are equated with state failure, most recently during the 2014–2015 Ebola pandemic in West Africa. Yet (successful) responses to epidemics in recent decades have become a lightning rod for intervention and a trump card for campaigning politicians, who hang equate epidemic eradication with their competence.

In other words, as Alex de Waal has written with regard to the HIV and AIDS pandemic,

The most important of these [conclusions] is that the HIV/AIDS epidemic itself does not threaten African political systems. Governments and institutions are designed to handle threats to their survival, and HIV/AIDS has turned out to pose a political threat no greater than familiar pathologies such as hunger and homelessness.

---

8 Reiterated in interview April 1, 2016 with Dr. Michael Edelstein.
9 Author’s translation. Original: “Bis heute stehen Seuchenzüge für das Scheitern des Staates, zuletzt wieder einmal in den failed states Afrikas während der Ebola-Epidemie. Anderseits avancierte die Seuchenbekämpfung in der Moderne zu einem Aktivposten von Interventionsstaaten und zu einem Wahlkampfschlager für Politiker, die ihre Leistungsfähigkeit im Sieg über die Seuche unter Beweis stellten—und nach wie vor stellen.” See Thießen, Malte. (2015). “Infizierte Gesellschaften: Sozial- und Kulturgeschichte von Seuchen,” Aus Politik und Zeitgeschichte (ApuZ), Vol. 65. Jahrgang, 20–21/2015, 18.
10 De Waal, Alex. (2006). AIDS and Power: Why There is No Political Crisis—Yet. Cape Town: Zed Books, p. 119.
The same seems to be true with regard to each of the examples above: not measles, nor Ebola, H5N1, SARS, Mers-CoV or even Zika—despite the current political upheaval in Brazil—appear to be contributing to state failure. Nonetheless, each epidemic and pandemic has and continues to challenge affected states in ways that might implicate (health) security more so even than do hunger and homelessness.

Second, responding to a health risk or threat is a fundamentally political act. “The fundamental lesson, unsurprising to anyone familiar with the history of social engineering and foreign aid in Africa, is that AIDS effects are driven ultimately by institutional and political interests.”11 The response represents the collective result of a series of choices at various levels of decision-making.

Third, responses to health crises—risks or threats—are characterized by a diffusion of decision-making and implementation powers between states, international institutions and organizations, NGOs and NSAs, and others. Furthermore, each of these actors and agencies are infused with “increased permeability . . . by elite civil society,”12 as argued in the sections on “influencers” in Chapter 7. This means that various channels, state and non-state, can be used both to co-opt political prioritization and funding, and/or for cooperation towards more distributive gains. Depending on whether and where overall coordination (and legitimacy) is bundled, the success of this in terms of a harmonized, effective response, varies (see recommendations below).

Fourth, each disease outbreak is different, and so is its required response.

Each disease outbreak is potentially different, with varied epidemiology, infection, morbidity, and mortality rates and requiring diverse control measures, which means that each outbreak obliges governments to be flexible in how they respond.13

11 Ibid., p. 123.
12 Ibid., p. 120.
13 Davies, Sara E., Adam Kamradt-Scott, and Simon Rushton. (2015). Disease Diplomacy: International Norms and Global Health Security. Baltimore: Johns Hopkins University Press, p. 122.
This ups the ante for governments to respond, to be seen to be “doing something.”\(^\text{14}\) The challenge then is not to equate “doing something” with doing anything, but to customize the response to render it timely and effective.

The fifth and final lesson is that disease outbreak, including epidemic and pandemic anticipation and response, both depends on and in turn creates health security. Health security is a local, national, regional, international and global challenge.

Global health security depends on many factors—robust disease surveillance systems, reliable health information, prevention, diagnostic, and treatment services, financing, and strong political commitment. But without skilled health professionals, who should be valued and protected everywhere, to act as the first line of defense of individual health security, other efforts will be in vain.\(^\text{15}\)

It means that at every level individual health is a constitutive part of global health security. On all levels, such health security is not merely a “nice to have,” but a “must have,” in an increasingly interconnected world.

This leads to Richard Horton’s note as editor of the medical journal, *The Lancet*:

Understandably, the (Ebola Interim Assessment) Panel preferred to place responsibility on structures, not individuals. This is entirely correct. But structures are made up of individuals, and it is individuals who make decisions. There needs to be some serious soul-searching within the agency [WHO] about who did what, when, and why it went wrong.\(^\text{16}\)

While individuals are and should be held responsible, systems have a role to play as well. It is at the systems level, whether that of Germany’s federal

\(^{14}\) Ibid., p. 123.

\(^{15}\) “No Health Workforce, No Global Health Security,” (2016), *The Lancet*, Vol. 387, Issue 10033 (21 May), 2063.

\(^{16}\) Horton, Richard (2015). “Offline: An Irreversible Change in Global Health Governance,” *The Lancet*, doi: [http://dx.doi.org/10.1016/S0140-6736(15)60997-7](http://dx.doi.org/10.1016/S0140-6736(15)60997-7).
states’ notification incompatibilities, or that of the WHO communication system internationally, that reforms writ large can and need to be undertaken.

**Recommendations**

In order to achieve global health policy coordination, it is vital to have priorities and the rules of the game set and standardized.

The global community must agree on a clear strategy to ensure that governments invest domestically in building such capacities and mobilize adequate external support to supplement efforts in poorer countries. This plan must be supported by a transparent central system for tracking and monitoring the results of these resource flows. Additionally, all governments must agree to regular, independent, external assessment of their core capacities.\(^{17}\)

Governments must not only pledge to invest in their health capacities, and agree to assessments thereof, they must also implement both.

On the way to such implementation, the framework within which all actors and agencies identify health risks and threats, communicate, prepare and implement response should be clear. Building upon existing structures, the most obvious recommendation here is to reinforce the IHRs and to ensure that any additional frameworks—such as those mentioned above—reinforce and do not fragment these. Krech argues that the WHO needs power: to be in the position to coordinate and control the international response to a disease outbreak emergency. In line with the recommendations above, he adds that the WHO should be able to issue a demand for what is needed to respond, and to receive those demands from member states. The Framework Convention on Global Health (FCGH) is a step in this direction.\(^{18,19}\) Nonetheless, even if adopted,

\(^{17}\) UN, “Protecting Humanity from Future Health Crises,” Report of the High-level Panel on the Global Response to Health Crises (25 January 2016).

\(^{18}\) See [http://www.globalhealthtreaty.org/](http://www.globalhealthtreaty.org/).

\(^{19}\) In his report for the June 2016 UN High-Level Meeting on Ending AIDS, Secretary General Ban Ki-moon stated, “I further encourage the international community to consider and recognize the value of a comprehensive framework convention on global health.” See, Report, April 1, 2016, para. 74.
the FCGH would not yet guarantee its enforcement. That depends upon adoption of its tenets and their enforcement as treaty obligations to protect and provide for health security.

Progress may be in the making. In his report for the June 2016 UN High-Level Meeting on Ending AIDS, Secretary General Ban Ki-moon stated, “I further encourage the international community to consider and recognize the value of a comprehensive framework convention on global health.”

Bearing this in mind, herewith are three proposals at the global, international and national levels, alongside a few recommendations for local response to further enable global health policy coordination:

**Globally**

States must be recognized as bearing the onus of identifying and prioritizing necessary health interventions. This ought to be operationalized on two levels, taking into account that (no) state is capable of guaranteeing all elements of health security on its own:

1. Level One: A rearrangement of responsibilities between States and non-state actors (NSA) to preserve such State primacy, or, alternatively, to (d)evolve accountable responsibility is necessary. For instance, State A gives State B or NSA X the authority to delivery health care against disease Y. In the first instance of State primacy, all actors involved in disease Y defer to the State’s authority, and the State retains responsibility and accountability for health responses. In the second instance of (d)evolutions, those States or NSAs to whom authority is (d)evolved assume responsibility—and accountability vis-à-vis the deferring State for the health of its citizens.

2. Level 2: Agreeing to a Memorandum of Understanding (MoU) between a (weak) State A and a (stronger) State B in terms of (military) logistical support in the event of a (zoonotic) epidemic presents a pre-emptive possibility to order health security before a risk becomes a threat. With a MoU in place prior to an outbreak, State A would pre-emptively grant authority to State B to assist. If

---

20 Ibid.
State B failed to assist, or infringed upon the MoU, State A could hold it to account on behalf of the health of its (un)served citizenry.\textsuperscript{21}

Given that health risk and threats are multiplying, and that the constituencies in particular need of health provision and protection are shifting within and across borders, these interventions specifically target health security at the level of global policy coordination. They also acknowledge that states remain the constituent agents of what remains an international political order. As such, international health policy coordination is essential.

\textit{Internationally}

At this level, individual human rights and health systems’ responsibilities must be brought into better international balance. This presupposes that, for example, brain gain for state B does not automatically become brain drain for state A. At the moment, programs across the EU, for instance, exist to fund medical trainees from states A in states B which foresee their return, which does not always take place.\textsuperscript{22} At the same time, national policies within select EU member states B, where their certifications are recognized, are especially attractive to professionals from states A.\textsuperscript{23} The freedom of movement of professionals constitutes an individual right. In the interest of protecting (public) health, however, an alternative to trainee programs would be to have states B compensate states A for professionals who contribute to their brain gain, while enabling states A to continue to educate and train and retain further crops of such professionals. This would have three benefits:

\textsuperscript{21} Šehović, Annamarie Bindenagel. (2016), “Coordinating Global Health Responses,” \textit{European Policy Brief} (October), available at: https://media.wix.com/ugd/0bc3be_e030923d86c04849a8831119d5100683.pdf.
\textsuperscript{22} With the exception of those who remain to, for example, marry, and gain permanent legal residency or citizenship.
\textsuperscript{23} This is notably the case with regard to medical professions trained in East Africa whose credentials are automatically recognized by the UK’s National Health Service (NHS). This applies to the brief as long as the UK is effectively part of the EU.
1. Such a scheme would retain the individual right to migration;
2. Such a scheme would reduce development aid by directly contributing to the health systems of states A with clear lines of accountability; and
3. Such a scheme might in the long term counteract the net effects of brain drain in states A.\(^{24}\)

Its implementation would be contingent on regional agreements, such as between the EU and regions within Africa where credentials are accredited. Its success would also be dependent upon the compliance of international—national—states.

**Nationally**

The national level stands out because national states retain the responsibility for the health of their populations. Despite cries to the contrary, (African) states did not collapse under the admittedly enormous weight of the HIV and AIDS epidemic. That does not mean that states could not buckle under such weight. As Krech notes, “every country in the world needs a health system that can absorb shocks.”\(^{25}\) It is at the national level that states are required to have “at least minimal capacities for health system: surveillance, communication, service delivery, personnel,”\(^ {26}\) and to be people-centered and integrated, to have financial and funding mechanisms, monitoring and information systems; systems that operate to guarantee the health security of their citizen populations, the people within their borders, and increasingly the mobile populations with whose health the others are entwined.

1. Human beings interact with one another regardless of such a differentiation, and so, too, do microbes. The distinction is obsolete.
2. By distinguishing between citizens’ rights as associated with State responsibility, whilst excluding migrants, the legal lines of

---

\(^{24}\) Šehović, “Coordinating Global Health Responses.”

\(^{25}\) Dr. Rüdiger Krech, Director, Health Systems and Innovation, Office of the Assistance Director-General of the WHO, interview May 18, 2016.

\(^{26}\) Ibid.
accountability are preserved: but the borders of health insecurity remain untouched. Expanding the health rights of migrants would shore up State responsibility while protecting health security for all.\textsuperscript{27}

That said, states, individually and in regional (EU) and international fora (UN, WHO) must reorder the legal underpinnings of health rights pertaining to citizens vis-a-vis migrants. Global health is national health is individual health.

**Locally/Individually**

The most important response to health risks and threats conducted at the local level is the detection and reporting of cases. Since any epidemic or pandemic starts with one adverse health event, the identification and reporting of this first case is paramount to the timely and effective preparation and implementation of a response.\textsuperscript{28} At this level is the first, and last, interaction between individual human health and security and global health and security.

This is the level at which an individual, and his/her social security meets military, state security. A citizen wants to be secure in an acute crisis of health, the environment, against terrorism, etc. This puts the onus for response on the state vis-a-vis the individual: and both should be aware that ordering health cannot mean the elimination of health risks and threats, only their reordering to mitigate their (potential for) disorder.

The state secures the territory, controls what flows into and out of it, including disease. The state builds, staffs, and funds hospitals and the entire health system. All of these are elements which provide physical and psychological security for the citizen. Then ensure that there are mechanisms in place to enable him/her to cope.\textsuperscript{29}

At the individual level, three elements are necessary to make these mechanisms work to contain disease outbreak.

First, identification of a disease agent and the knowledge of what to do when confronted with it.

\textsuperscript{27} \v{S}ehovi\v{c}, “Coordinating Global Health Responses.”

\textsuperscript{28} UN, “Protecting Humanity from Future Health Crises.”

\textsuperscript{29} Dr. Rüdiger Krech, interview.
Second, communication to spread that knowledge and to implement the measures needed to contain the outbreak.

Third, trust between state and citizen in order to facilitate both communication and implementation.

The state’s own security depends upon that of the individuals who constitute itself. It has recourse to information systems, to the police and to the military in particular to support state-citizen trust of communication and implementation of appropriate responses. As a member state, the state then acts as a link between the local and the global levels or response.

Taking the local-national-international-global response to the Ebola pandemic as an example of this, Krech notes that it got out of control because the “‘globe’ did not look at the local level enough.” It is necessary to act as “micro as possible, and as macro as possible!”\(^{30}\) Health is “glocal” as he puts it: and needs continuous attention at all levels.

**CONCLUSIONS**

EIDs will continue to emerge, challenging the global—glocal—community. “Climate change and international migration, trade and travel facilitate the widening of reservoirs and spread of vectors, bringing with them transmissible diseases such as dengue, chikungunya, and West Nile Fever.”\(^{31}\) The reality of this is also reflected also in the US FAD PReP plans. As they do so, “Epidemics appear not only as a threat, but as a challenge, a chance for the interventionist state that wants to prove its ability to act against infectious disease.”\(^{32}\) Compounding the direct challenges posed by epidemics and pandemics themselves are the indirect

---

\(^{30}\) Dr. Rüdiger Krech, interview.

\(^{31}\) Ehlkes, Lutz and Jürgen May. (2015). “Seuchen—gestern, heute, morgen.” *Aus Politik und Zeitgeschichte (ApuZ)*, 65. Jahrgang, 20–21/2015 p. 10. Author’s translation. Original: “Durch den Klimawandel sowie internationale Migration, Handel und Reisen breiten sich Reservoir- und Vektoriere sowie die von übertragenden Krankheiten wie Dengue-, Chikungunya- und West-Nil-Fieber weiter aus,” in Thießen (2015). “Infizierte Gesellschaften: Sozial- und Kulturgeschichte von Seuchen.”

\(^{32}\) Author’s translation. Original: “Epidemien erschienen nun nicht nur als Bedrohung, sondern ebenso als Herausforderung, ja als Chance für den Interventionsstaat, der seine Handlungsfähigkeit in der Seuchenbekämpfung
complications such as “panic, social unrest and economic consequences” \(^{33}\) which up the ante for response. \(^{34}\) In other words, as noted in the introduction, the world is beset by upheaval and disorder.

It remains to emphasize that Global Health Governance must be understood broadly. Health is made in all policy and political areas—from agricultural through education policy. Without adequate nutrition, education and hygienic standards, mechanisms to fight global pandemics will remain a drop in an ocean. \(^{35}\)

Risk, and degrees of risk, will continue to influence human (r)evolution. Responding to disease outbreaks, and stemming the tide of an epidemic or pandemic, takes place at the local, national, international and global levels of policy decision-making. A global order of health policy for health security demands coordinating global health policy responses.

\(^{33}\) Author’s translation. Original: “Panik, soziale Unruhen und wirtschaftliche Folgen,” in Ehlkes and May (2015). “Seuchen—gestern, heute, morgen.” in Aus Politik und Zeitgeschichte (ApuZ), 65. Jahrgang, 20–21/2015, p. 9.

\(^{34}\) ibid.

\(^{35}\) Author’s translation. Original: “Es bleibt also zu betonen, dass Global Health Governance breit verstanden werden muss. Gesundheit wird in allen Politikbereichen gestaltet—von der Agrar- bis zur Bildungspolitik. Ohne ausreichende Ernährung, Bildung und sanitäre Standards bleiben Mechanismen zur globalen Pandemiebekämpfung ein Tropfen auf den heißen Stein,” Hanrieder, Tine (2015). “Globale Seuchenbekämpfung: Kooperation zwischen Ungleichenen,” Aus Politik und Zeitgeschichte (ApuZ), 65. Jahrgang, 20–21/2015, 24.