How to Break the Gridlock in Global Health Governacnce?
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Innovation, Learning and Polycentricity in Global Health Governance

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1. Introduction

Global governance debates have frequently emphasized the fact that the multilateral institutions established after World War II seem increasingly unable to address problems of collective action that cross national boundaries. The new forms of complex interdependence and interconnected crisis that characterize the current wave of globalization are often perceived to have outgrown our capacity to further engage in international cooperation to supply global public goods including financial stability, climate change mitigation, security, and the integrity of the biosphere (Goldin, 2013; Hale, Held and Young, 2013a; Lamy, 2014). Furthermore, this deficit of multilateralism must now be understood in the context of what many commentators describe as a more systemic crisis (if not outright decline) of the international liberal order, punctuated by the parallel rise of nationalistic and protectionist tendencies in many countries (Ikenberry, 2018).

As recently discussed by Hale, Held *et al.* (2017), however, the effectiveness of global governance presents stark variations across sectors and even at the level of single institutions or regimes within them. In this paper, we focus on the evolution of global health governance over the past three decades, and analyse the multiple ways in which the global health system has sought to adapt, learn and respond to the changing conditions of the multilateral order in order to protect health. In particular, we argue that global health governance has proven far more innovative than what is usually assumed for global governance as a whole. First, dynamics that are associated with gridlock and stalemate in multilateral cooperation, such as institutional fragmentation or an expanding number of actors exerting influence on a given issue, have instead partially acted as drivers of change in global health governance. Secondly, global health actors have often been able to harness the opportunities offered by at least three important pathways of innovation, and namely: (i) the presence of a significant degree of organizational learning and active feedback loops between epistemic and practice communities; (ii) a highly polycentric system of governance, whereby the formation of hybrid coalitions, the establishment of new bodies and programmes, and the creation of more effective coordinating mechanisms can act as mitigating factors against the risks of institutional inertia; and (iii) the increased role of political leadership as a catalyst for governance innovation.

The fact that global health actors' attention to effectiveness and health outcomes has often overshadowed considerations of efficiency and coherence inevitably leads to a conundrum. For those who emphasize the significant achievements that global cooperation on health matters has brought in recent years, despite an increasingly volatile system of international relations, global health governance mainly appears a model of innovation from which other sectors could learn.[1] For many others, global health governance remains far from being "fit for purpose", and instead seem to neglect the structural weaknesses that continue to hold back the protection of health as a global public good. For those in between, global health is a sector which commands increasing political

[1] Bourgeouis (2018) recently described the idea of governance innovation as the "continuous search for new paradigms to […] achieve better policy decisions in an era characterized by complexity and a holistic understanding of well-being". Throughout this paper, by 'governance innovation' we will specifically refer to both intra-institutional innovations and what Moore and Hartley (2008: 4-5) define as 'innovations in governance', that is, innovations that occur above the organizational level and "involve networks of organizations, or the transformation of complex social production systems".

attention and resources, and yet it is unclear to what extent this complex and increasingly polycentric system of institutions and processes can work as a coherent whole and continue to adapt in an era of rapid economic, social, technological and environmental transformations.

In order to explore this conundrum, we conduct an in-depth, theoretically-grounded analysis of the different pathways to gridlock and change that have characterized this sector of global governance in the past three decades, as well as of the interactions between them. We draw on the concept of gridlock (Hale, Held and Young, 2013a) and accordingly investigate the dynamics of global health governance in order to understand how pathways to gridlock apply in this field. At the same time, we consider additional strands of theory, particularly those of meta-governance (Meuleman, 2008) and adaptive governance (Chaffin, Gosnell and Cosens, 2014), as concepts that can be used to: (i) develop explanations for global health governance failures which are not accounted for by gridlock; (ii) provide the basis to explain how gridlock can be overcome, to the extent that it exists; (iii) and interact with gridlock to produce a more analytically robust framework that can inform our analysis of health vis-à-vis other sectors of governance and global governance in its entirety.

The paper is structured as follows. In Section 2, we introduce the current debate on the 'fitness' of the global health system through the lenses of gridlock theory, focusing on its recent historical trajectory. In Section 3, we describe the approach and methodology of our research. In Section 4, we present and discuss our main findings, focusing on both (i) the main pathways to difficult cooperation that we witness in the recent evolution of global health governance; and (ii) governance innovations and pathways of change. Finally, in Section 5, we conclude by summarizing the future challenges of global health governance. In particular, we note that the process of constant adaptation and innovation that we see in global health governance might be entering a new phase, and we argue that the level of organizational learning and incorporation of self-reflexive knowledge in global health will largely determine the extent to which this sector will be able to deal with its present and future challenges.

2. The context: the trajectory of global health governance between gridlock and innovation

Global health governance, which has been broadly defined 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"[2] (Fidler, 2010), has in many ways undergone a radical transformation over the last three decades. In fact, despite international cooperation in health representing one of the oldest forms of multilateral cooperation,[3] and notwithstanding the significance of the 1948 creation of the World Health Organization (WHO), it is with the rapid spread of HIV/AIDS that health moved forward on the political agenda and became a priority issue for international development (Brown, Cueto and Fee, 2006; Kickbusch and Ivanova, 2013).

[2] Within the wider space defined by Fidler as global health governance, Kickbusch and Cassar Szabo (2014) define three interweaving political spaces: (i) global health governance properly defined, which refers to those institutions and process of global governance that have an explicit health mandate (e.g. the World Health Organization, the GAVI Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria); (ii) global governance for health, which indicates those institutions and processes that can have indirect impacts on health regardless of their mandate (e.g. the World Trade Organization, the General Assembly-led process on the adoption and implementation of the Sustainable Development Goals); and governance for global health, which finally refers to those institutions and mechanisms which operate at the national and regional level and contribute to global health governance).

[3] The birth of international health cooperation is conventionally traced back to the first International Sanitary Conference, held in 1851 in Paris (Kickbusch and Ivanova, 2013).

Beginning in the 1990s, available funding for global health (IHME, 2018) and the number of global health actors (Hoffman, Cole and Pearcey, 2015) both started to increase exponentially, resulting in major shifts in the very architecture of global health governance (Hoffman, Cole and Pearcey, 2015), in an expansion of its mechanisms and objectives (Schaferhoff, Schrade and Suzuki, 2015: 8-9), and in the emergence of new types of actors and partnerships engaging with it (Youde, 2014). Moreover, in the same period significant health successes were achieved in several regions and issue areas, with demonstrable results including widespread increases in life expectancy (WHO, 2015: 10-11), the global fall of maternal and child mortality, increased access to anti-retroviral therapy, scaled-up malaria interventions in Africa (UN, 2015: 6-7), and continued progress towards the eradication of polyomielitis (WHO, 2015: 88-89).

At the same time, however, most analysts agree that the improvements have been uneven and insufficient. To this day, major challenges still persist in the priority areas identified in the Millennium Development Goals (MDGs) (WHO, 2018: 4-10), and the pace of progress on the implementation of the new Sustainable Development Goals (SDGs) also appears insufficient to reach their health-related targets by 2030 (UN, 2017: 20-23). Moreover, the persistent threat of infectious diseases spreading across borders powerfully underscores that such an increased number of global health actors, instruments and disease-focused funding streams has not translated into sustainable health systems in many countries (Ooms et al., 2008) or effective surveillance, preparedness and response capacities at the national and global level (Gostin, DeBartolo and Friedman, 2015). Over the years, these critiques have often prompted calls for the reform of global health architecture in general and of the WHO in particular, as the 'anarchical' expansion of the former (Fidler, 2007) was widely seen as both a cause and a result of the perceived weaknesses and inertia of the latter (Kickbusch and Reddy, 2015: 839-840; Schaferhoff, Schrade and Suzuki, 2015: 18-19). Finally, and perhaps most importantly, there has been growing awareness about the possibility that despite its success on specific diseases, global health governance remains fundamentally unfit to address the complex interdependence of health challenges in the 21st century, most of which now require action on the determinants of health originating outside of the health sector. From this perspective, key challenges that have been identified the shifting burden of disease towards non-communicable diseases (NCDs) (WHO, 2018: 7), the health impacts of climate change and environmental degradation (Whitmee *et al.*, 2015), and rising global rates of antimicrobial resistance (AMR) (OECD, 2016: 2).

In sum, global health as a sector of global governance has greatly expanded and continues to do so, both as a consequence of larger trends (new health challenges associated with an increasingly globalized economy, health impacts of environmental degradation) and of material factors (changes in population structures and shifting burden of disease, growing awareness about the causes of ill health originating in other areas of global governance). Moreover, this expansion occurs at a time of significant changes in the global political landscape for collective action on health matters. First, despite the fact that high-income countries in the Global North remain the principal funders of the major global health organizations (Dieleman et al., 2016), the political influence (Gautier et al., 2014; Harmer and Buse, 2014) and global health expenditure (Jakovljevic et al., 2017) of rising middle-income powers including China, India, Brazil, South Africa and Russia have both increased dramatically, in stark contrast with the ongoing uncertainty which surrounds the future level of engagement of the United States (Kates et al., 2018). Second, the adoption, in September 2015, of the *2030 Agenda for Sustainable Development* has effectively ushered in a new era for global health governance, shifting away from a vertical focus on specific diseases and towards a broader emphasis on health systems and a more holistic vision of health and wellbeing (Buse and Hawkes, 2015). Lastly, the 2017 election of Tedros Adhanom Ghebreyesus as WHO's new Director-general suggests

a stronger emphasis, on the part of the organization, on the exercise of political leadership as a means of maintaining global health high on the political agenda of countries (Kickbusch, 2017).

From a theoretical perspective, it is possible to hypothesize that these interweaving dynamics of success, failure and change form part of a larger process of governance, in which the set of causal mechanisms that make multilateral cooperation on health issues increasingly difficult can also prompt successive cycles of breakthroughs and reforms, and lead to adjustments and innovations within the related governance space. In developing their theory of gridlock, which problematizes the growing inability of countries to cooperate to address transnational policy problems, Hale, Held and Young (2013a) have pointed for example to four such interacting trends: increasing multipolarity, more complex (harder) problems, institutional inertia, and fragmentation.

- Increasing multipolarity, according to this view, is associated with the rise of new powerful actors in the Global South, which in global health has resulted in the decline of the traditional distinction between donor and aid-recipient countries and in the subsequent challenge of negotiating consensus among a wider range of actors advancing different world views and political interests (Kickbusch and Reddy, 2015).
- The notion of harder problems captures the greater scope and complexity of health challenges in an era characterized by the accelerating forces of globalization, and particularly by transboundary flows of people, consumption and production of goods and services, negative environmental externalities, information, and rules (Frenk, Gómez-Dantés and Moon, 2014).
- Institutional inertia refers in particular to the WHO and to the different forms of path-dependence that have led many to question its role in the global health system, including lack of decisive leadership, shifting interests of member states, progressive reduction of its budget, and dysfunctional policy processes (Kickbusch and Reddy, 2015).
- Fragmentation, finally, alludes to the negative effects of an increasingly dense institutional ecosystem that has for many years failed to create effective coordinating mechanisms, leading to increased transaction costs, greater competition for resources and a general appropriation of the global health agenda by powerful countries and actors in the Global North (Kickbusch and Reddy, 2015; Wallace Brown and Held, 2017).

The four gridlock pathways seek to conceptualise the challenges facing the recent evolution of global health governance, putting them in relation to the underlying conditions affecting the multilateral system and describing them as 'second-order' cooperation problems.[4] At the same time, such pathways do not capture the competing dynamics which might have allowed global health to undergo its dramatic transformation, while over the same period other sectors of governance were suffering from much more severe instances of stalemate and inaction (see for example Hale, Held and Young (2013b: 228-232). This is why we believe it is useful to complement gridlock by taking other theoretical approaches into account. In particular, we refer here to the concepts of metagovernance and adaptive governance.

On the one hand, the concept of metagovernance (Meuleman, 2008) has already been applied to global health (Holzscheiter, Bahr and Pantzerhielm, 2016) in order to describe how, despite its

[4] By 'second-order cooperation problems', Hale, Held and Young (2013a, 2013b) refer to the fact that current trends towards increasingly difficult cooperation can be seen as the result of the previous successes of collective action. More specifically, the authors point to a process of 'self-reinforcing interdependence': the successful institutionalization of international cooperation in the postwar period generated an unprecedented expansion of the world's economy and thereby deepened interdependence, in turn creating demand for futher institutionalization which, when supplied, accelerated such interdependence even further.

portrayal as an exceptionally fragmented sector of governance, it is still possible to see movements of convergence between international organizations and other global health actors.[5] In addition, the lens of metagovernance can help account for the emergence of instances of political agency, coordination or stewardship, particularly as they relate to the attempted exercise of leadership by the WHO and, increasingly, by other institutions, countries and even individuals. On the other hand, the concept of adaptive governance, which has so far been adopted mainly in the field of environmental governance (Chaffi, Gosnell and Cosens, 2014; Dietz, Ostrom and Stern, 2003),[6] can be deployed to explain how global health has been innovative and resilient in its response to challenges. More specifically, exploring global health through the prism of adaptive governance theories can help make sense of pathways to change involving multiple institutions coalescing around common principles and norms, lear, and windows of opportunity created by major shifts in countries' interests or sudden health crises.

Taken together, these three strands of theory provide for a comprehensive framework, which we seek to apply to the following analysis in order to understand the complex interplay of governance challenges and innovations in global health.

3. Research approach and methods

This research adopts a qualitative, mixed-method approach organised around structured, focused comparison (George and Bennett, 2005). In order to explore similarities and differences in the global health governance response to different types of health threats, we relied on three case studies of significant political, social and health relevance, namely HIV/AIDS, the 2014 Ebola outbreak in Guinea, Liberia and Sierra Leone, and antimicrobial resistance (AMR).

The HIV/AIDS pandemic, in the light of its complex, three-decade old governance history, as well as due to its pivotal role in transforming public health into a truly global endeavor (Brandt, 2013; Gostin, 2014: 308), was selected as the example of a protracted health threat. By contrast, the 2014 Ebola outbreak represents a contemporary, acute health crisis, whose toll in terms of human lives and other social and economic impacts (Elston, Cartwright, Ndumbi and Wright, 2017) is often taken as the clearest indication of a persisting lack of capacities for emergency preparedness and response in global health governance (Gostin and Friedman, 2014). Lastly, despite the fact that concerns about drug resistance can be traced back to the very advent of antibiotics, only in recent years have global health governance initiatives on AMR come into greater prominence. As a consequence, AMR is chosen here as a case study for 'future' health threats, with the direct and indirect impacts associated with soaring rates of resistance projected to progressively increase over the next few decades (The Review on Antimicrobial Resistance, 2014).

With a view to preliminarily trace the governance trajectories of the three case studies, as well as to inform our data collection and analysis, we carried out an initial scoping and mapping exercise

[5] Metagovernance theory postulates that, in order to reap the fruits of collaborative governance in networks, partnerships and relational contracting, the interactive governance arenas must be metagoverned. Accordingly, metagovernance is also described as the "governance of governance", involving attempts to facilitate, manage and direct interactive governance arenas without undermining their capacity for self-regulation (Meuleman, 2008; Sorensen and Torfing, 2016).

[6] In an environmental context, adaptive governance is described as a means of managing uncertainty and complexity in socio-ecological systems. More specifically, adaptive governance is framed in terms of resilience (namely, the capacity of a system to absorb disturbance and abrupt change while still maintaining structure and function), and in this sense scholars conceptualize the need for adaptive institutions to be nested across levels of governance, polycentric, redundant in function, connected through networks, and capable of allowing experimentation and learning (Chaffin et al., 2014).

based on a review of the published relevant literature.[7] The following data sources were then used to develop our findings:

- 40 in-depth (semi-structured) interviews with key stakeholders in global health governance, focusing on one (or more) of the three case studies or on global health governance more generally. The interviewees included representatives of governments who have been directly involved in the governance history of the case studies, as well as representatives of international organisations, public-private partnerships, foundations, the private sector, and non-governmental organisations.
- Primary documents produced by the governing bodies of selected institutions, including (but not limited to, the World Health Organization (WHO), the United Nations Joint Programme on HIV/AIDS (UNAIDS), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), Unitaid, the UN General Assembly (UNGA), and the G7/G20.

We conducted a qualitative content analysis of the interviews and primary texts, focusing on three main aspects: (i) key governance challenges, (ii) gridlock and non-gridlock explanations for those challenges, and (iii) pathways of innovation and learning in overcoming gridlock. The primary data were coded using NVivo Software. The reason for using NVivo was to facilitate a systemic qualitative content analysis and develop a better understanding of the relevant insights, patterns and casual mechanisms. In particular, NVivo has allowed us to identify areas where core questions and themes intersect, both within one of the health sectors, but also across them.

In order to align the data analysis with the original research questions, we identified set of relevant codes and visualized coding density alongside these codes. We then explored the codes with the highest density to uncover common patterns and trends in the responses and primary texts, and accordingly developed a set of findings. Triangulation was conducted by exploring coding densities for the in-depth interviews and the primary texts side-by-side, in order to make sure that the relevant interview responses were not outliers. In addition, relevant responses from interviews focused on the case studies were compared with responses from general interviews on global health governance, so as to allow comparison and generalization of findings.

4. Findings and discussion

4.1. A changing structural context of global health

In line with the analytical framework adopted by this paper, the first major theme explored in both the interviews and the primary texts consist in the extent to which the four pathways to gridlock described by Hale, Held and Young (2013a, 2013b) apply to the recent governance history of our case studies and of global health more generally. It is almost a truism to note that global health, as any other sector of governance, is bound to be affected by the underlying forces of globalization and complex interdependence. In fact, even when not explicitly associating themselves with gridlock terminology, all interviewees identified pathways to increasingly difficult cooperation and stalemate in health that could be described as pathways to gridlock. Of these, a relative emphasis was put on trends of growing multipolarity and fragmentation, highlighting a rapidly changing structural context of global health characterized by both (i) a shifting distribution of power and (ii) the rise of

[7] The reviewed literature consisted of both peer-reviewed and grey literature focusing on the governance history of the three case studies, as well as on broader global health system developments and reforms. Grey literature included in particular documents and reports produced by multilateral institutions, think-tanks, non-governmental organisations and foundations. The scoping and mapping exercise used an approach informed by Ruggie (2004) and its three-fold conceptualisation of the Global Public Domain, including issues, actors, and practices.

polycentric, networked forms of governance. Interestingly, however, our findings suggest that these pathways can be seen as presenting both challenges and opportunities for global health governance, and under certain conditions lead to the adaptive responses and innovations that will be discussed in Section 4.2.

4.1.1. The challenges and opportunities of emerging multipolarity in global health

Throughout our interviews, it was often noted that traditional geopolitical rivalries and domestic political forces have always influenced consensus building within multilateral institutions, and even more so for organizations, like the WHO, that have remained strongly dependent on their particular federal design (Hanrieder, 2014). Similarly, the role of WHO member states in worsening the organization's long-standing funding and prioritisation problems is well accepted, and so is the fact that the emergence of powerful non-state actors, such as the Bill and Melinda Gates Foundation (BMGF) has created new forms of complex and ideational polarity that multilateral institutions now have to navigate.[8] What is more interesting, in this context, is that the rapidly shifting distribution of powers in global governance, suggestively described as "the rise of the rest" (Zakaria, 2008), is fundamentally altering the political landscape and dynamics of global health.

On a more descriptive level, many instances of growing multipolarity are visible in health, ranging from the emergence of strong pharmaceutical and other global health industries in middle-income countries (Ross, 2016), to rising health spending in both low- and middle-income countries (Dieleman et al., 2016), to examples of South-South cooperation in the forms of strategic investments or development assistance for health (DAH) (Fiorini et al., 2012; Cabral, Russo and Weinstock, 2014; Kickbusch, 2016). But how does these trends operate? According to our findings, the implications of the rise of the rest are mixed.

On the one hand, we find that growing multipolarity can indeed have a negative impact on international cooperation in health by compounding the traditional difficulties of multilateral decision-making. As their political clout grows, middle-income countries yield greater influence in governance processes, especially in terms of protecting nascent industries or powerful sectors. This is especially evident in negotiations over emerging health threats, such as in the case of the AMR case study. Two interviewees, for example, pointed to Brazil's protection of domestic agri-business concerns in the negotiations of the WHO Global Action Plan on AMR and, more recently, of the WHO Global Stewardship and Development Framework,[9] whereas two others[10] emphasized how the issue of production of, access to, and patenting of antimicrobial medicines is being used by emerging powers including China and India as a leverage for broader negotiations on areas like intellectual property rights (IPRs):

> "Multilateral politics is a major limitation [on AMR] because there is a need to take care of the interests of your own emerging pharma sector […] there is a danger of progress being locked down because it is tied to different multilateral political agendas from various countries in the South, and to the access issue especially, and patent issues." *(Government official 2, interview conducted on 7 November 2016)*

[8] This is shown, inter alia, by the 2016 agreement on the WHO Framework of Engagement with Non-State Actors (FENSA), which represented an unprecedented effort by a multilateral institution to detail the modalities of engagement with the growing plethora of civil society organizations, foundations, private companies, and academic institutions in the global health space.

[9] The two interviews were conducted on 15 March 2017 (academic and NGO representative 1) and on 3 November 2016 (government official 1), respectively.

[10] Government official 2 (7 November 2016) and government official 3 (8 December 2016).

On the other hand, growing multipolarity has also clearly resulted in the emergence of new country champions, whose diverse range of interest has in turn led to more inclusive approaches to health issues and ultimately driven progress in many areas of global health. With respect to AMR, one interviewee pointed to Thailand's Antibiotic Smart-use project as a model for other countries,[11] with China and India also taking significant steps on the domestic front.[12] Even more important, however, has been the role of Global South countries in the governance history of HIV/AIDS. In this context, two fundamental developments stand out. First, the leadership of countries including (but not limited to) China, India and South Africa in the late 1990s is widely considered to have acted as a driving force in shifting the emphasis of the response towards the development of generics and the establishment of access to medicines and treatment as priorities over prevention, prompting significant innovation on issues such as differential pricing and compulsory licensing.[13] Secondly, and as a consequence, this leadership resulted in the emergence of strong instances of South-South cooperation in the manufacturing of and equitable access to anti-retrovirals (ARVs),[14] as demonstrated by the formation of joint ventures such as the one set up in 2005 between Indian pharmaceutical company Cipla, Quality Chemicals limited and the Government of Uganda.[15] These trends, it should be noted, are certainly reflective of the wider shifts towards multipolarity which characterize global governance, and there is little sign that they will slow down. On the one hand, one interviewee higlighted how the priorities of middle income countries are starting to be reflected in their role as aid donors in global health, not just just as aid recipients.[16] On the other, there is ample evidence that South-South cooperation on health issues is going to increase, as recently demonstrated by China's announcement of a health cooperation plan as part of its investments in Africa (Sun, 2015).

4.1.2. Fragmentation of global health actors and venues: solution or problem?

Fragmentation as defined by Hale, Held and Young (2013b) refers to the phenomenon of institutional density and complexity which can arise as a consequence of the exponential rise in the number of actors and venues engaging in a given sector of governance. According to these authors, institutional fragmentation results in increased transaction costs, redundancy, forms of forum shopping, and a disaggregation of resources and political will. In global health, the proliferation of a new and diverse set of actors and venues over the last three decades is well documented (Cooper, 2013; Hoffman, Cole and Pearcey, 2015), and several parallel explanations are given for this trend in our interviews.

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[11] Academic and NGO representative 1 (15 March 2017). See also ReAct's case study on Antibiotic Smart Use: https://www.reactgroup.org/wp-content/uploads/2016/10/Antibiotic-Smart-Use-project-case-study.pdf (accessed 22 June 2018).

[12] IO senior official 1 (15 March 2017); academic and NGO representative 1 (15 March 2017).

[13] Six interviews, including academic and former IO senior official 1 (January 2017); academic and former IO senior official 2 (3 January 2017); NGO representative and former IO official 1 (27 January 2017); IO senior official 2 (6 February 2017); PPP senior official 1 (13 March 2017); IO senior official 3 (12 July 2017).

[14] NGO representative and previous IO official 1 (27 January 2017); IO senior official 2 (6 February 2017).

[15] Other examples include Ghana's Danadams, a joint venture between Adams Pharmaceuticals (a Chinese company) and Danpong Pharmaceuticals, as well as cooperation between Brazil and Mozambique on the construction of the African country's first ARV factory under the two governments' *Protocolo de Intenções* on international technical cooperation in health.

[16] The interviewee particularly focused on the emphasis put by Brazil, Chile and Madagascar on access to medicines in their role as Unitaid donors (PPP senior official 1, 13 March 2017).

First, according to a majority of the interviewees, and consistent with an established theme in the literature,[17] the proliferation of global health institutions has often been considered a way to mitigate what in the 1990s started to be widely perceived as inertia, lack of capacity or even complete gridlock within the WHO. This is well demonstrated by the 1996 creation of the Joint UN Programme on HIV/AIDS, as well as of those of GAVI Alliance in 2000 and the GFATM in 2002. As put it by one of the interviewees:

> "One of the reasons that there has been an emergence of new governance structures, whether it's UNAIDS, whether it's the Global Fund, GAVI, or whether it's the product develoment partnership model, is that those are innovations to overcome the gridlock of original governance structures. The original governance structures of the global health community are becoming more and more obsolete." *(Private foundation representative 1, 29 March 2017)*

Second, at least three interviewees noted that the role played in this process by the political preferences of the WHO member states should not be overlooked either. More specifically, these interviewees view proliferation as partly driven by a conscious strategy by traditional donor countries in the West to limit and weaken the mandate of the WHO, retain greater control of global health finance and build vertical, issue-focused "alliances of the willing" (Kickbusch and Reddy, 2015: 839).[18] Third, in all the three case studies, interviewees pointed to a more neutral aspect of fragmentation, consisting in the growing awareness about the inherent multidimensionality of health challenges and the subsequent expansion of global health as a sector of governance. Fragmentation in HIV/AIDS governance, for example, was already visible from the late 1980s, as UN agencies and programmes with different mandates became involved in the international response[19] out of recognition that the epidemic did not just come from a virus, but rather from "patterns of development, poverty and gender" (Chan, 2015: 134). With respect to AMR, similarly, fragmentation involves inevitable overlaps between institutions including WHO, the Food and Agriculture Organization of the United Nations (FAO), the World Organization for Animal Health (OIE), the World Trade Organization (WTO), the World Bank, and UNICEF, as well as high-level political fora (especially the UN General Assembly, the G7 and the G20) and non-state actors ranging from consumer groups, to product development partnerships (PDPs), to private companies in different sectors. Finally, in the case of Ebola, the superimposition of the outbreak on complex humanitarian crises with political and security dimensions also created the challenge of mobilizing political commitment and resources through different venues (e.g. G7, G20 and the Global Health Security Agenda), improving coordination between UN Agencies, governments and other non-state actors, and linking infectious disease responders with the broader humanitarian and development community.

When it presented itself in the governance history of our three case studies, fragmentation has certainly led to increased competition and transaction costs,[20] created inconsistencies in

[17] See for example Godlee (1997) and Szlezak (2012).

[18] Academic and former IO senior official 1 (January 2017); IO official 2 (6 February 2017), IO official 3 (9 March 2017)

[19] Already in 1987, the UN Department of International Economic and Social Affairs created a Steering Committee on AIDS which included agencies and programme tasked with responding to different aspects of the epidemic, such as UNICEF, the UN Population Fund (UNPFA), the UN Development Programme and WHO. The WHO Global Programme on AIDS (GPA) and the WHO/UNDP Alliance to Combat AIDS were also set up in the same year.

[20] On HIV/AIDS, two interviewees for example pointed to the confusion created at the country level about the different priorities, accountability mechanisms and reporting requirements of the institutions disbursing funding in the affected countries, especially before the 2003 launch of the Three Ones Principles, the 2011 UNAIDS Strategic Investment Framework and the 2014 partnership agreement between the WHO and the GFATM (academic and former IO senior official 1 (January 2017); academic and former IO senior official 2, 3 January 2017).

governance processes,[21] favored vertical health silos against a more holistic focus on health system strengthening,[22] and made inter-organizational coordination and convergence more difficult.[23] These critiques are in line with a vast literature on global health governance (see, *inter alia*, Gostin et al., 2010; Swanson et al., 2015 and Wallace Brown and Held, 2017).

At the same time, however, fragmentation has arguably played a central role in the mainstreaming of health in the global political agenda over the past three decades. Moreover, as mentioned above, fragmentation can in itself be seen as a response to challenges including inertia in the multilateral system and the harder nature of health problems. First, the creation of new institutions and governance arrangements, including PPPs, PDPs, funding mechanisms and bilateral initiatives, was widely described as an example of governance innovation that can confront institutional path-dependencies, shifting priorities of countries, rapid economic, social and political changes, and donor complacency.[24] Secondly, nearly all of our interviewees agree that having pluralistic responses to complex issues that no single institution can have the capacity or mandate to deal with is necessary to advance progress:

> "Already at the conceptual level it's clear that AMR is not an issue you can solve within the UN system. The UN system can solve the normative side, but medicines have to be developed, regulatory systems have to be built, there has to be a commitment to them, and then such commitment has to be monitored and followed up […] it's a huge process, and the UN can deliver the normative side, but they cannot deliver the financing and the political will that is going to require. And the industry has to be part of it." *(Government official 2, 7 November 2016)*

> "The participation of civil society in HIV/AIDS governance has helped us work pragmatically on the basis of local conditions and needs. It has helped us address issues critical to an effective AIDS response but which are often deemed politically sensitive by many governments […]" *(IO senior official 3, 12 July 2017)*

Third, whilst sometimes criticized as a symptom of fragmentation, the proliferation of venues in which global health issues are discussed (e.g. UNGA, G8/G7 and, more recently, the G20) is also recognized as a catalyst for creating political momentum and facilitating the transition of a health issue to the highest levels of politics, particularly when such venues lead groups of diverse actors coalesce under a set of common goals or norms.[25] Here, inclusiveness with respect to civil society has been identified in our interviews as a critical element for success, as shown in the governance history of HIV/AIDS with the large-scale mobilization of Global South movements focusing on

[21] On AMR, for example, one interviewee referred to the common discrepancies and mistrust that exist among institutions focusing on AMR data gathering and surveillance (academic 1, January 2017), while another lamented the risk of "separate tracks" being created between AMR stewardship and R&D on new antimicrobials, with "the former remaining under the WHO through the Global Action Plan and the latter becoming part of member-state-driven funding mechanisms or PDPs" (academic and former PPP director 1, January 2017).

[22] PPP senior official 1 (13 March 2017); IO senior official 1 (15 March 2017); IO official 2 (6 February 2017).

[23] On HIV/AIDS, according to one interviewee, "programmes like the GFATM or the President's Emergency Plan for AIDS Relief (PEPFAR) became vast programmes that do not easily take directions from other organizations." (academic and former IO senior official 1, January 2017).

[24] For example in the interviews with private foundation representative 1 (29 March 2017) and NGO representative 1 (February 2017).

[25] On AMR, such common goals and norms are for example represented by the endorsement, on the part of UNGA, G7 and G20, of a One Health approach to AMR and of the WHO Global Action Plan; in the Ebola response and aftermath, they consisted in, inter alia, the support to developing countries in the implementation of the International Health Regulations (IHRs) and to the reform of the WHO emergency work. More generally, these is evidence that universal health coverage (UHC) and the SDGs have also become "master concepts and norms" adopted by the key institutions and venues for global health (Wallace Brown and Held, 2017: 177).

equitable access to treatment,[26] and increasingly in that of AMR through the emergence of CSOs and consumer unions pushing forward the issue of use of antibiotics as growth promoters.[27]

Lastly, precisely because it inevitably led to inefficiencies and lack of coordination in the first place, fragmentation itself acted as a driver of change, creating a constant demand and space for governance innovations, inter-organizational convergence, effective exercise of stewardship, and stronger political leadership. As we argue in section 4.2.1., this dynamic is made possible in global health because of the highly self-reflexive nature of the global health community. Holzscheiter (2014) has highlighted the contested nature of the inter-organizational convergence narrative in global health, proposing that some of these efforts end up adding complexity, rather than reducing it ("hypercollective action"). Although this might possibly be true, our findings suggest that practitioners still tend to evaluate the effectiveness of global health governance in terms of improved health outcomes, rather than on a perfect internal coherence of the system that seems neither achievable nor necessarily desirable. As put by one IO senior official,

> "Governance starts and ends with the individual human person […] This is why the process of governing must always aim at generating concrete results that benefit the people on the ground. If we are not generating meaningful change in people's lives, then we are failing." *(IO senior official 3, interviewed on 12 July 2017)*

4.2. Innovation and pathways of change in global health governance

The changing structural context of global health, which we tried to describe in the previous section, provides an essential gateway against which to understand the dynamic evolution of this sector of global governance. Growing multipolarity and institutional fragmentation are trends that would widely be considered as obstacles to effective collective action, and yet they arguably play a key role in stimulating governance innovation and building adaptive capacity in the global health system. In this section, we focus specifically on the role of specific 'pathways of change' in counteracting the negative implications of pathways to gridlock and harnessing the opportunities arising from them. More specifically, we emphasize three characteristics that are well known in adaptive governance scholarship, but stil relatively unexplored in the context of global health governance: (i) the presence of learning processes and feedback loops between epistemic and practice communities; (ii) the capacity to reap the benefits of highly polycentric system of governance; and (iii) the increased role of political leadership as a catalyst for governance innovation.

4.2.1. The role of learning processes in governance innovation

The transformation of global health governance over the past three decades demonstrates that governance innovations in this sector are not the result of an unconscious reaction to failing cooperation or health crises. As noted by Van Assche et al. (2015), innovation originates from successful instances of self-reflexive change, and is the direct by-product of governance systems that create space for learning and experimentation. More specifically, knowledge generation and organizational learning are widely considered to be criteria that are necessary for adaptive

[26] Government official 4 (1 March 2017); academic and former IO senior official 2 (3 January 2017); PPP senior official 1 (13 March 2017).

[27] Academic and former IO senior official 3 (23 February 2017); academic and former PPP director 1 (January 2017); academic and NGO representative 1 (15 March 2017).

governance to emerge, and they are usually described as a function of social capital (Dietz et al., 2003; Folke et al., 2005).

Generally speaking, instances of governance innovation in global health can be mostly grouped in four categories: (i) creation of new institutions and governance arrangements, such as PPPs, coordination mechanisms, hybrid governance coalitions and bilateral initiatives, as a response to the perceived incoherence and inertia of the UN system; (ii) intra-institutional innovation within both existing and new institutions to confront path dependencies, donor complacency, competition for funding, shifting priorities of countries, lack of legitimacy and accountability, and sudden health crises; (iii) ideational innovation providing overarching frames, goals or norms around which global health actors can coalesce; and (iv) public sector innovation at the country level fostered by global health actors with the goal of building capacity and streamlining actions towards more effective responses. A non-exhaustive set of examples for these forms of governance innovation, based on our findings from interviews and primary texts, are provided in the table below.

Type of governance innovation	**Examples**
Creation of new institutions and governance arrangements	• New institutions and PPPs: UNAIDS, GFATM, GAVI Alliance, Unitaid • PDPs: Coalition for Epidemic Preparedness Innovations (CEPI); PATH; Drugs for Neglected Diseases Initiative (DNDi); International AIDS Vaccine Initiative (IAVI), GARDP • Other funding mechanisms: Fleming Fund, UK-China GAMRIF Fund, CARB-X Accelerator • Coordination mechanisms: UN Inter-agency coordination group on antimicrobial resistance; L3 Activation Procedures for Infectious Disease Events; Global Ebola Response Coalition (GERC) • Bilateral initiatives: PEPFAR • Legal and soft-law instruments: IHRs; Framework Convention on Tobacco Control; Global Action Plan on AMR
Intra-institutional innovation	• WHO's post-Ebola reforms (creation of the Health Emergencies Programme, Contingency Fund for Emergencies etc.) • GAVI's 2008 governance reform • GFATM's 2011 governance reform
Ideational innovation	• Concepts: universal health coverage (UHC) • Frames: health security framing of outbreaks • Goals: goal-setting as a governance strategy in HIV/AIDS (3by5 initiative, UNAIDS/PEPFAR Global Plan to reduce new HIV infections among children by 2015; targets established by UNGA Political Declarations on HIV/AIDS)
Country-level innovation fostered by global health actors	• Country coordinating mechanisms (CCMs) used by the GFATM • Three ones principles initiated by UNAIDS in cooperation with WB and GFATM • Support to AMR national action plans through the Global Antibiotic Resistance Partnership (GARP)

Whereas the two trends are not always interdepedent, many of these innovations can indeed be linked, in different ways, to self-reflexive learning processes that are continuously occurring within

and across the institutions of global health governance. Whilst not exclusive to global health, these processes have been particularly intense in this sector, with epistemic communities playing a large role in shaping global health debates and very active feedbacks loops being created between epistemic and practice communities. On the one hand, intra-institutional innovation and creation of new institutions have often been the result of formal learning processes, as shown by the proliferation of high-level commissions, review committees and assessment panels that are now common in the work of the WHO (e.g. the Commission on the Social Determinants of Health, the IHR Review Committees codified in Article 50 of the IHRs, the Ebola Interim Assessment Panel, and more recently the WHO Independent High-level Commission on NCDs) and of other global health actors (e.g. the High-level Independent Review Panel that provided recommendations to the GFATM prior to its 2011 governance reform). On the other, global health governance is more broadly characterized by constant knowledge creation and network learning at multiple levels, with expert discourses that have been particularly influential in the development of shared understandings and metagovernance norms emphasizing the importance of inter-organizational convergence and hybrid coalition-building (see for example Holzscheiter, Bahr and Pantzerhielm, 2016).

That the global health system as a whole appears particularly adaptive does not mean, of course, that all innovations in global health governance are the results of adaptive governance processes. A majority of the intervewees agreed that windows of opportunity triggered by health crises such as the rapid spread of HIV/AIDS or the 2014 Ebola outbreak played an essential role in bringing the international community together and prompting governance reforms (Kickbusch and Reddy, 2015), In turn, these crises were arguably exacerbated by previous failures in the translation of learning processes into practice,[28] highlighting how different institutions can suffer from different degrees of risk-aversion and resistance to change.[29] What this shows, in conclusion, is that learning rarely occurs through technocratic processes insulated from the politics of global health. As we discuss in section 4.2.3., political leadership, including when exercised by private citizens and CSOs, is central to these dynamics. The perception of what reforms are feasible, given the political context, plays a fundamental role in the choice of governance instruments,[30] and the growing politicisation of health suggests that the myriad ways in which technical expertise and political ideas interact will continue to shape the evolution of global health governance in the 21st century.

4.2.2. Harnessing the benefits of polycentricity

A second, important pathway of change in global health governance concerns the extent to which institutions, markets and networks do not operate in isolation, but rather form part of a highly polycentric governance regime. Polycentricity, as described by, *inter alia*, Dietz et al. (2003) and Folke et al. (2005), refers to a multi-level governance system characterized by multiple centres of powers that are formally independent, redundant in function and connected through formal and informal networks. Polycentricity is another key feature of adaptive governance systems. On the one hand, the challenges of complexity and interdependence require institutional diversity, partially overlapping jurisdictions, and functional redundancy in order to buffer against failures and external

[28] For example, at least three interviewees pointed to the failure, on the part of the WHO, to implement the reommendations of the IHR Review Committee set up after the H1N1 influenza outbreak of 2009 as one of the main reasons behind the organization's lack of capacity and predparedness during the 2014 Ebola outbreak (IO senior official 2, 6 February 2017; former member of the Review Committee on the Role of the International Health Regulations in the Ebola Outbreak and Response, February 2017; and government official 2, 7 november 2016).

[29] More specifically, the nature of WHO as a member-state organization was frequently brought up by the interviewees as the main limiting factor preventing it from implementing lessons drawn from learning processes.

[30] For example, the creation of new institutions vis-à-vis the establishment of coordination mechanisms, or the negotiations of binding legal instruments as opposed to political strategies or action plans.

shocks. On the other, they also require a set of shared understandings, goals and norms that can steer actors and networks towards desired societal outcomes. We find that global health governance exhibits polycentricity in relation to both of these dimensions, albeit to a different extent.

With respect to the first aspect, it is clearly possible to identify a plurality of centres of power which go beyond traditional donor countries and conventional multilateral institutions and which are also increasingly connected with other another through various forms of networked governance (see for example Shiffman et al., 2016). These centres of power include rising middle income countries but also philantropic organizations capable of exerting influence and mobilizing significant resources (e.g. BMGF, Rockefeller Foundation, Wellcome Trust), global CSOs and transnational networks and movements (e.g. Médecins Sans Frontières, Treatment Action Campaign, Global Network of People Living with HIV/AIDS, Antibiotic Resistance Coalition), as well as a broad range of partnerships and coalitions with different degrees of formalization. As we noted in section 4.1.1., such a highly polycentric governance system can possess weaknesses, as it increases transaction costs and leads to lack of coordination or even conflict among actors (Jordan et al., 2015). Interestingly, however, polycentricity has not been framed in our interviews as necessarily negative. Rather, many interviewees emphasized that the attention to effectiveness and health outcomes has often overshadowed, in global health governance, considerations of efficiency and coherence. In other words, global health actors seem to have embraced diversity and redundancy as inevitable, if not ideal, means of providing global public goods in the 21st century:

> "You called it a fragmentation. I would call it a diversification, a multiplication of actors […]. A bigger world with more players is fantastic. I mean, we live in such a fantastic era of being able to tackle big health problems […]. The organisations have reached the limit of what they can do, [and] the health problems are getting more complex." (IO senior official 5, 28 November 2016)

From this perspective, two interweaving causal mechanisms stand out. First, polycentricity has meant that instances of inertia within the WHO or in the multilateral system could be partly mitigated by institutional diversity, as evident from Médecins Sans Frontières' leading role in the first response to the 2014 Ebola outbreak,[31] or from the combination of innovative financing mechanisms, bilateral programmes and philantropic foundations' engagement that helped scale up access to HIV/AIDS treatment since the 2000s.[32] Second, polycentricity is arguably making global health governance more inclusive, allowing new voices and perspectives to influence the agenda of countries and multilateral institutions, but also the way in which challenges are framed.[33]

In relation to the uptake of shared understandings about what health is and how it ought to be governed, the evidence from our case studies is more mixed. On the one hand, competing discourses have strongly shaped the response to issues including HIV/AIDS and the 2014 Ebola outbreak, leading to instances of lack of trust between different global health constituencies, creating tensions in the choice of solutions,[34] and ultimately contributing to a proliferation of

[31] IO senior official 4 (28 November 2016); government official 5 (25 October 2016).

[32] Academic and former IO senior official 1 (January 2017); former PPP director (13 April 2017); former Ambassador and private foundation representative (check date); private foundation representative 1 (29 March 2017).

[33] This is the case, mentioned above, of the critical role played by mass-scale movements in the Global South in bringing the issue of access to treatment to the fore of the HIV/AIDS response; of the presence (and influence) of civil society in the governing boards of institutions such as UNAIDS and the GFATM; and of the increasing dialogue between WHO and consumer groups advocating for a stronger response to antibiotic use in agriculture and husbandry.

[34] Three interviewees have for example referred to the health security framing of the Ebola epidemic, and how it might have eroded trust in local communities and led countries to take decisions that were ultimately negative for an effective

vertical approaches that have often neglected the dimension of health system strengthening. The most glaring case, in this context, is represented by the persistent failure of global health actors to articulate a shared, human rights-based approach to HIV/AIDS governance, a theme which featured prominently in our interviews.[35] On the other hand, the diffusion of common narratives, goals and norms within the global health system is arguably more dynamic than in the past, ranging from the concepts of universal health coverage to the place of Goal 3 on health and well-being in the SDG framework (Kickbusch, Cassels and Liu, 2016), and including the emergence of widely accepted metagovernance norms about the importance of inter-organizational convergence and stewardship (consistent with Holzscheiter, Bahr and Pantzerhielm, 2016). More generally, the progressive uptake of an understanding of health that cannot be removed from economic, security, environmental and humanitarian considerations has increased the presence of health in other policy arenas (and vice versa), and created a fertile ground for the emergence of shared approaches that take these interactions into account.

4.2.3. Political leadership

As noted by one of the authors of this paper (Kickbusch, 2015: 2012), the centrality of health to economics and security, coupled with its "growing role in relation to the legitimacy of the state and the values and expectations of citizens", has strongly concurred to put health on the agendas of heads of government. Significantly, such a trend towards the policitisation of health has not only concerned international political fora such as the UN Security Council (UNSC), the UNGA, the G8/G7 and G20, or the foreign and security policies of countries. Rather, there has been a growing realization that all actors engaging in global health governance, including IOs, private foundations, think tanks, CSOs and even experts and scholars, are involved in processes that are deeply political, with the consequence that the successful exercise of leadership and political agency is also becoming essential to the construction of legitimacy. Leadership is, in fact, considered an additional key requirement for adaptive governance systems, providing key functions including building trust, linking actors, initiating partnerships and mobilizing support for change (Chaffin et al., 2014; Folke et al., 2005).

Across our case studies, we not only find that the pathways to overcoming governance challenges can often be put in relation to increased politicisation of health problems, but also that political leadership is usually a catalyst in the transition of a health issue to the highest level of politics, a notion that was already vocally supported at the turn of the century by former WHO DG Gro Harlem Bruntland. From this perspective, politicisation and political leadership are increasingly considered to be prerequisites for overcoming instances of gridlock in global health governance, particularly by: (i) catalysing tipping points in which the international community is able to come together in support of governance innovations; (ii) sustaining political momentum in the face of competing priorities, shifting agendas and donor fatigue; and (iii) shining a light on neglected dimensions of health crises and bringing attention to marginalized groups, power imbalances and injustices. The table below summarizes the most common references to such instances of politicisation and exercise of political leadership in our case studies.

response, such as refusing to share medicine stockpiles or restricting travel from the affected countries (government official 2, 7 November 2016; IO senior official 5, 28 November 2016; NGO director, 7 March 2018).

[35] At least seven interviews: academic and former IO senior official 1 (check date); academic and former IO senior official 2 (3 January 2017); IO senior official 3 (12 July 2017); government official 6 (1 March 2017); IO senior official 6 (7 March 2017); former PPP director (13 April 2017); PPP senior official 1, 13 March 2017.

Case Study	Instances of politicisation (i.e. transition to high-level politics)	Instances of political leadership
HIV/AIDS	• Adoption of the MDGs (2000) • UNSC Resolution 1308 (17 July 2000) and 1983 (7 June 2011) • UNGA Special Session on HIV/AIDS (25-27 June 2001) • Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases (27 April 2001) and • High-level meeting on AIDS (8-10 June 2011) • High-level meeting on ending AIDS (8-10 June 2016) • UNAIDS' five-year strategies (2011-2015 and 2016-2021) to eradicate AIDS	• *Institutional*: UNAIDS, World Bank • *Countries:* United States and donor countries in the West, Brazil, South Africa (after Thabo Mbeki presidency), China, India • *Philantropic foundations:* BMGF, Clinton Foundation, Ford Foundation • *NGOs and Civil society:* GNP+, TAC, International AIDS Society etc. • *Individuals:* Jonathan Mann, Peter Piot, Kofi Annan, Festus Mogae, Yoweri Museweni, Olusegun Obasanjo, George W. Bush, Jacques Chirac, Michel Sidibé etc.
Ebola	• Announcement of Ebola as a Public Health Emergency of International Concern (8 August 2014) • UNSC Resolution 2177(2014) (15 September 2014) • High-level Meeting on Ebola Response (23 September 2014) and UNGA Resolution 69/1 (19 September 2014) • G7 Germany 2015 and Foreign Ministers' declaration "Beyond Ebola: a G7 agenda to help prevent future crises and enhance security in Africa (15 April 2015) • Continued engagement in 2016 and 2017 at the G20	• *NGOs*: Médecins Sans Frontières • *Regional organizations*: African Union, ECOWAS, Mano River Union • *Countries*: South Africa, United States, Germany, Ghana, Norway, the affected countries • *Individuals*: David Nabarro, Bruce Aylward, Margaret Chan, Joanne Liu
AMR	• Adoption of the WHO Global Action Plan on AMR (May 2015) • High-level Meeting on AMR (21 September 2016) • AMR as a priority for G7 (2015 Berlin Declaration on AMR, 2016 Ise-Shima Vision for Global Health) and G20 (at G20 Germany 2017)	• *IOs*: World Health Organisation • *Countries*: Germany, Japan, Sweden, Denmark, Netherlands, United Kingdom • *Civil society*: Antibiotic Resistance Coalition (ARC), ReAct • *Individuals*: Sally Davies, Jim O'Neill, Margaret Chan

What are the implications, for global health governance, of such a seismic shift away from the traditional understanding that political decision-making and technical expertise could (and should) easily be insulated from one another (see for example Kickbusch, 2015)? Our findings suggest three important considerations. First, as noted above, political leadership is now a concept that does not apply to countries and heads of government alone. Multilateral institutions and their senior management have in many cases played a driving role in the transition of health challenges to high-

politics, and so have NGOs, CSOs, philantrophic foundations, and even high-profile experts, practitioners and advocates. Second, political leadership, as well as the objectives of its exercise (e.g. channeling funding, pushing for accountability, supporting governance innovations, raising momentum beyong the health sector), are inevitably shaped by the different interests of the "leaders", thus emphasizing the importance of plurality and inclusiveness in the global health debates and negotiations of the 21st century. Finally, and perhaps most importantly, the growing importance of political leadership in a polycentric global health system appears to be associated with renewed expectations on the stewardship function of the WHO as the world's main arena for convening, priority-setting, negotiation and rule-making on health matters. As solutions to health challenges become both multi-faceted and multi-sectoral, WHO is increasingly asked to be able to direct, coordinate and galvanize the global health community, including by strengthening its ability to position health interests within the wider global political landscape. Whilst skepticism was raised by many interviewees as to its effective capacity to do so, this indeed appears to be the way in which the organization's new DG has decided to interpret his mandate:

> "I know from my own experience in politics that with buy-in from the highest levels, anything is possible. Without it, progress is difficult. That is why I have made a priority of engaging with leaders all over the world, to advocate for political action on health [..]." *(Address by Dr Tedros Adhanom Ghebreyesus at the WHO's 71st World Health Assembly, 21 May 2018)*

5. Conclusion: moving global health governance forward in a new era

This paper has argued that the last three decades of global health governance have brought a remarkable degree of innovation, despite a wider geopolitical context characterized by increasing complexity and interdependence. This has been made possible by two interrelated conditions. First, growing multipolarity and institutional fragmentation have effectively transformed, rather than gridlocked, global health governance, changing the structural context in which the rules are formed and the solutions deployed without simultaneously preventing meaningful governance innovations from taking place. Secondly, global health governance has increasingly assumed the characteristics of a highly adaptive system in which the presence of self-reflexive learning processes, a polycentric governance structure, and the emergence of vocal political leadership constantly combine in the creation of pathways of change.

Notwithstanding these significant developments, our findings also acknowledge that major uncertainties remain for the future. To be fit for purpose in the 21st century, global health governance will have to address four imperatives, which broadly reflect the four essential functions of the global health system identified by Frenk and Moon (2013): (i) managing the cross-border implications of growing interdependence, such as the spread of infectious diseases, rising AMR rates, a shifting burden of disease, and the growing health impacts of environmental degradation and climate change); (ii) providing stewardship through priority setting, rule setting, advocacy, consensus-building and coordination; (iii) ensuring a smooth but effective transition from DAH to greater country ownership and mobilization of domestic finance for health; and (iv) continuing the shift away from vertical, disease-specific governance to an approach focused on UHC and global public goods.

From this perspective, however, the processes of adaptation and innovation that we have higlighted in this paper might be entering a new phase, in which their limits are further stretched and called into question. First, continuing governance innovation among traditional global health actors and networks will not, in itself, be able to deal with increasingly complex multi-sectoral challenges (e.g.

AMR, NCDs, climate change) which require systemic changes beyond the health sector. As shown by the case of AMR, for example, the engagement of non-health actors is often seen as being in its infancy, and the results of the calls for integration made at high-level political fora such as the G7, G20 and UNGA are yet to be explored. Second, for the global health system to be able to exercise its stewardship function on emerging health issues, efforts at generating international buy-in will have to be complemented by a stronger emphasis on using political leadership to create ownership at the domestic level, filling the persistent implementation and capacity gap that many countries still face (e.g. pushing for the effective implementation of the IHRs in vulnerable countries, promoting domestic legislation on prudent use of antibiotics, advocating for sustainable health systems). Finally, the clear emergence of trends towards greater inclusiveness of governance processes and diffusion of shared goals and norms will have to be evaluated against the parallel rise of new nationalist tendencies and the perceived retreat of liberalism. Three years removed from the adoption of the *2030 Agenda for Sustainable Development*, the multilateral context appears dramatically different, putting global health governance's adaptive capacity to its most challenging test yet.

References

Bourgeois, R. (2018). *The Futures of Governance and the Governance of the Future: Using the Future as a Governance Innovation*. Centre for the Study of Governance Innovation (mimeo).

Brandt, A.M. (2013) How AIDS invented global health. *New England Journal of Medicine* 368 (23) 2149-2152. https://doi.org/10.1056/NEJMp1305297

Brown, T.M., Cueto, M. and Fee, E. (2006). The World Health Organization and the transition from "international" to "global" public health. *American Journal of Public Health,* 96(1), 62–72.

Buse, K. and Hawkes, S. (2015). Health in the Sustainable Development Goals: Ready for a Paradigm Shift? *Globalization and Health* 11(13), doi 10.1186/s12992-015-0098-8 (accessed 18 June 2018)

Cabral, L., Russo, G. and Weinstock, J. (2014). Brazil and the Shifting Consensus on Development Co-operation: Salutary Diversions from the 'Aid-effectiveness' Trail? *Development Policy Review,* 32(2), 179-202

Chaffin, B.C., Gosnell, H., Cosens, B.A. (2014). A decade of adaptive governance: synthesis and future directions. *Ecology and Society* 19(3): 56. doi: http://dx.doi.org/10.5751/ES-06824-190356 (accessed 20 June 2018)

Chan, J. (2015) *Politics in the corrider of dying: AIDS activism and global health governance.* Baltimore, MD: John Hopkins University Press.

Cooper, A.F. (2013). The G8/G20 and global health governance: extended fragmentation or a new hub of coordination. In: Kickbusch, I. et al. (eds.) *Global health diplomacy. Concepts, issues, actors, instruments, fora and cases.* New York, NY: Springer.

Dieleman, J.L., Templin, T., Sadat, N., Reidy, P., Chapin, A., Foreman, K., … Kurowski, C. (2016). National spending on health by source for 184 countreis between 2013 and 2040. *The Lancet,* 387(10037), 2536-2534.

Dietz, T., Ostrom, E. and Stern C.E. (2003). The struggle to govern the commons. *Science* 302:1907-1912.

Elston, J.W.T., Cartwright, C., Ndumbi, P. and Wright, G. (2017). The health impact of the 2014-2015 Ebola outbreak. *Public Health* 143, 60-70.

Fidler, D.P. (2010). *The challenges of global health governance*. New York: Council on Foreign Relations. Available from: https://cfrd8-files.cfr.org/sites/default/files/pdf/2010/05/IIGG_WorkingPaper4_GlobalHealth.pdf (accessed 13 June 2018).

Fiorini, A., Nachiappan, K., Pang, T. and Pilcavage, C. (2012). Global health governance: analysing China, India and Japan as global health aid donors. *Global Policy,* 3(3), 336-347.

Folke, C., Hahn, T., Olsson, P., and Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources* 30, 441-473.

Frenk, J., Gómez-Dantés, O. and Moon, S. (2014). From sovereignty to solidarity: a renewed concept of global health for an era of complex interdependence. *The Lancet,* 383(9911), 94-97.

Gautier, L., Harmer, A., Tediosi, F. and Missioni, E. (2014). Reforming the World Health Organization: what influence to the BRICS wield? *Contemporary Politics,* 20(2), 163-181

George, A.L. and Bennet, A. (2005). *Case studies and theory development in the social sciences.* Cambridge, MA: MIT Press.

Godlee, F. (1997) WHO reform and global health. *British Medical Journal,* 314(7091), 1359-1360.

Goldin, I. (2013). *Divided Nations: Why global governance is failing, and what we can do about it* (Oxford: Oxford University Press.

Gostin, L.O. (2014). *Global health law.* Cambridge, MA: Harvard University Press.

Gostin, L.O. and Friedman, E.A. (2014). Ebola: a crisis in global health leadership. *The Lancet*, 384(9951), 1323-1325.

Gostin, L.O., DeBartolo, M.C. and Friedman, E.A. (2015). International Health Regulations 10 years on: the governing framework for global health security. *The Lancet* 386(10009), 2222-2226.

Gostin, L.O., Ooms, G., Heywood, M., Haffeld, J., Møgedal, S., Røttingen, J., Friedman, E.A. and Siem H. (2010). *The joint action and learning initiative on national and global responsibilities for health. World Health Report Background Paper 53*. Available from: http://www.who.int/healthsystems/topics/financing/healthreport/JALI_No53.pdf (accessed 23 June 2018).

Hale, T., Held, D., Young, K. (2013). *Gridlock: why global cooperation is failing when we need it most*. Cambridge: Polity Press.

Hale, T., Held, D., Young, K. (2013). Gridlock: from self-reinforcing interdependence to second-order cooperation problems. *Global Policy,* 4(3), 223-235.

Hale, T., Held, D., et al. (2017). *Beyond gridlock*. Cambridge: Polity Press.

Hanrieder, T. (2014). The path-dependent design of international organizations: federalism in the World Health Organization. *European Journal of International Relations,* 21, 215-239.

Harmer, A. and Buse, K. (2014) The BRICS: a paradigm shift in global health? *Contemporary Politics*, 20(2) 127-145.

Hoffman, S.J., Cole, C.B. and Pearcey M. (2015) *Mapping the global health architecture to inform the future.* London: Chatham House (Royal Institute of International Affairs, UK). Available from: http://www.chathamhouse.org/sites/default/files/field/field_document/20150120GlobalHealthArchitectureHoffmanColePearcey.pdf (accessed 13 June 2018).

Holzscheiter, A. (2014). *Restoring order in global health governance: do metagovernance norms affect interorganizational conference? CES Papers – Open Forum #23.* Harvard, MA: The Minda de Gunzburg Center for European Studies.

Holzscheiter, A., Bahr, T. and Pantzerhielm, L. (2016) Emerging governance architectures in global health: do metagovernance norms explain inter-organisational convergence? *Politics and Governance,* 4(3), 5-19.

IHME (2018). *Financing Global Health 2017: Funding Universal Health Coverage and the unfinished HIV/AIDS agenda.* Seattle: IHME. Available from: http://www.healthdata.org/sites/default/files/files/policy_report/FGH/2018/IHME_FGH_2017_fullreport_online.pdf (accessed 13 June 2018)

Jakovljevic, M., Potapchik, E., Popovich, L., Barik, D. and Getzen, T.E. (2017) Evolving health expenditure ladnscape of the BRICS nations and projections to 2025. *Health Economics* 26, 844-852.

Jordan A.J., Huitema, D., Hildén, M., et al. (2015) Emergence of polycentric climate governance and its future prospects. *Nature Climate Change,* 5(11), 977-982. doi:10.1038/nclimate2725

Ikenberry, G.J. (2018). The end of liberal international order? *International Affairs,* 94, 7-23.

Kates, J., Michaud, J., Kirzinger, A., Munana, C. (2018). A check up on US global health policy, after one year of the Trump administration. The Henry J. Kaiser Family Foundation Issue Brief. Available from: http://files.kff.org/attachment/Issue-Brief-A-Check-Up-on-US-Global-Health-Policy-After-One-Year-of-the-Trump-Administration (accessed 20 June 2018)

Kickbusch, I. (2015). Politics or technocracy – what next for global health? *International Journal of Health Policy and Management* 5(3), 201-204.

Kickbusch, I. (2016). Global health governance challenges 2016 – are we ready? *International Journal of Health Policy and Management,* 5(6), 349-353.

Kickbusch, I. (2017). The new director general of WHO and the politics of global health. *BMJ Opinion.* Available from: http://blogs.bmj.com/bmj/2017/05/31/ilona-kickbusch-the-new-director-general-of-who-and-the-politics-of-global-health/ (accessed 20 June 2018).

Kickbusch, I. and Cassar Szabo, M.M. (2014). A new governance space for health. *Global Health Action,* 7: 23507, doi: 10.3402/gha.v7.23507 (accessed 13 June 2018)

Kickbusch, I., Cassels, A. and Liu, A. (2016) *New directions in governing the global health domain – leadership challenges for WHO. Global Health Centre Working Paper no.13.* Available from http://repository.graduateinstitute.ch/record/294882/files/GHPWP_13_Ilona_2016.pdf (accessed 26 June 2018)

Kickbusch, I. and Ivanova, M. (2013). The history and evolution of global health diplomacy. In Kickbusch, I. et al. (eds.) *Global health diplomacy. Concepts, issues, actors, instruments, fora and cases.* New York, NY: Springer.

Kickbusch, I. and Reddy, S. (2015). Global health governance – the next political revolution. *Public Health* 129, 838-842.

Lamy, P. and Goldin, I. (2014). Addressing the Global Governance Deficit. *The Huffington Post.* Weblog. Available from: http://www.huffingtonpost.com/pascal-lamy/addressing-the-global-gov_b_4646573.html (accessed 18 June 2018).

Meuleman, L. (2008) *Public management and the metagovernance of hierarchies, networks and markets.* Heidelberg: Springer.

Moore, M. and Hartley, J. (2008). Innovations in governance. *Public Management Review,* 10(1), 3-20.

OECD (2016). *Antimicrobial resistance. Policy Insights.* Paris: OECD. Available from: https://www.oecd.org/health/health-systems/AMR-Policy-Insights-November2016.pdf (accessed 13 June 2018).

Ooms G., Van Damme W., Baker B.K., Zeitz P., Schrecker T. (2008). The 'diagonal' approach to Global Fund financing: a cure for the broader malaise of health systems? *Globalization and Health*, 4(6). Available from: doi:10.1186/1744-8603-4-6 (accessed 18 June 2018).

Ross, C. (2016). Building BRICs: pharma's key emerging markets are becoming giants. *Pharmaceutical Market Europe.* 20 June 2013. Available from: http://www.pmlive.com/pharma_intelligence/building_brics_pharmas_key_emerging_markets_are_becoming_giants_483972 (accessed 22 June 2018).

Ruggie, J.G. (2004). Reconstituting the Global Public Domain – issues, actors and practices. *European Journal of International Relations* 10(4), 499-531.

Schaferhoff, M., Schrade, C. and Suzuki, E. (2015). *Analysing proposals for reform of the global health architecture.* London: Chatham House (Royal Institute of International Affairs, UK). Available from: http://www.chathamhouse.org/sites/default/files/field/field_document/20150803GlobalHealthArchitectureSchaferhoffSchradeSuzuki.pdf (accessed 13 June 2018).

Shiffmanm J., Schmitz, H.P., Berlan, D., et al. (2016). The emergence and effectiveness of global health networks: findings and future research. *Health Policy and Planning.* 31(Suppl 1), i110-i123

Sorensen, E., Torfing, J. (2009). Making governance networks democratic and effective through metagovernance. *Public Administration,* 87(2), 234-258.

Sun, Y. (2015) Xi and the 6th Forum on China-Africa Cooperation: Major commitments, but with questions. *Brookings.* 7 December 2015. Available from: https://www.brookings.edu/blog/africa-in-focus/2015/12/07/xi-and-the-6th-forum-on-china-africa-cooperation-major-commitments-but-with-questions/ (accessed 22 June 2018).

Swanson, R.C. et al. (2015) Strengthening health systems in low-income countries by enhancing organizational capacities and improving institutions. *Globalization and Health,* 11(5). 11:5 DOI 10.1186/s12992-015-0090-3

Szlezak, N.A. (2012). *The making of global health governance: China and the Global Fund to Fight AIDS, tuberculosis and malaria.* New York, NY: Palgrave Macmillan.

The Review on Antimicrobial Resistance (2014). *Tackling drug-resistant infections globally: final report and recommendations.* Available from https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf (accessed 20 June 2018).

UN (2017) *The Sustainable Development Goals Report 2017.* New York: United Nations.

UN (2015) *The Millennium Development Goals Report 2015.* New York: United Nations.

Van Assche, K., Beunen, R., Barba Lata, I. and Duineveld, M. (2015). Innovation in governance. In: Beunen, R. et al. (eds.) *Evolutionary governance theory: theory and applications.* Springer.

Whitmee, S., Haines, A., Beyrer, C., Boltz, F., Capon, A., de Souza Dias, B., Ezeh, A., Frumkin, H., Gong, P., Head, P., Horton, R., Mace, G., Marten, R., Myers, S., Nishtar, S., Osofsky, S., Pattanayak, S., Pongsiri, M., Romanelli, C., Soucat, A., Vega, J. and Yach, D. (2015). Safeguarding human health in

the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *The Lancet*, 386(10007) 1973-2028.

WHO (2018). *World Health Statistics 2018: monitoring health for the SDGs.* Geneva: World Health Organization.

WHO (2015). *Health in 2015: from MDGs, Millennium Development Goals, to SDGs, Sustainable Development Goals.* Geneva: World Health Organization

Zakaria, F. (2008). The Rise of the Rest. *Fareed Zakaria.* May 12, 2008. Available from: https://fareedzakaria.com/columns/2008/05/12/the-rise-of-the-rest (accessed 22 June 2018).