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Aligning multilateral support for global public goods for health under the Global Action Plan

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● ACRONYMS

ACTs	Artemisinin-based combination therapies
AMFm	Affordable Medicines Facility-malaria
AMR	Antimicrobial resistance
CEPI	Coalition for Epidemic Preparedness Innovations
CIH	Commission on Investing in Health
CPM	Co-payment mechanism
DAH	Development assistance for health
GOARN	Global Outbreak Alert and Response Network
GPEI	Global Polio Eradication Initiative
GPGs	Global public goods
GPW	General Programme of Work
HIV	Human immunodeficiency virus
IPV	Inactivated polio vaccine
LICs	Low-income countries
LLIN	Long-lasting insecticidal net
MICs	Middle-income countries
PEF	Pandemic Emergency Financing Facility
R&D	Research and development
RDT	Rapid diagnostic test
SDGs	Sustainable Development Goals
TAG	Technical advisory group
TB	Tuberculosis
TDR	Special Programme for Research and Training in Tropical Diseases
UHC	Universal health coverage
UN	United Nations
QAACT	Quality-assured artemisinin-based combination therapies
WHO	World Health Organization

● EXECUTIVE SUMMARY

Background

In a historic move at the World Health Summit in October 2018, 12 multilateral health and development organizations signed on to the joint Global Action Plan for Healthy Lives and Well-being for All (the Global Action Plan). The Global Action Plan, which aims “to enhance collective action and accelerate progress towards the Sustainable Development Goals (SDGs),” calls for organizations to align efforts to strengthen the provision of global public goods (GPGs) for health. Despite the critical importance of GPGs for health in achieving the health-related SDGs, only about one-fifth of donor funding for health supports such goods.

Aims and approach

In this paper, we examined multilateral support for GPGs for health, focusing on the four largest multilateral health organizations—Gavi, the Vaccine Alliance (Gavi), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), the World Bank, and the World Health Organization. Our analysis aimed to answer three questions:

1. *How do these four organizations define GPGs for health and situate GPGs within their own strategies?*
2. *How do these four organizations currently contribute to supporting GPGs for health?*
3. *Taking a cross-cutting view of the four organizations, what steps can these organizations take to align their support for GPGs for health to deliver on the Global Action Plan?*

We began by reviewing these organizations’ strategy and finance documents, as well as their grants and projects databases. We reviewed existing relevant academic and grey literature. To fill in the gaps from this desk-based research, we conducted 46 key informant interviews with senior leadership within these organizations and with individuals from think tanks and academia who have expertise in GPGs for health and/or our multilateral organizations of focus (Appendix 1).

In this paper, we go beyond the economic definition of a GPG for health—in this narrow definition, a GPG for health is a health good that is “non-rival” (if one person consumes it, this consumption does not reduce the value of the good to others) and “non-excludable” (no one can be denied access to the good). Instead, we use the term GPGs for health as shorthand to refer to a broader set of collective action activities aimed at improving health: (i) supporting GPGs (e.g., knowledge generation and sharing, product development for neglected diseases), (ii) controlling negative regional or global externalities (e.g., preparing for pandemics), and (iii) fostering global health leadership and stewardship (e.g. setting global health priorities).

Organization-specific support for GPGs for health

Gavi. Supporting GPGs for health, especially market shaping for vaccines and funding global vaccine stockpiles to prevent outbreaks, is a key element within Gavi’s strategy. Market shaping for vaccines is at the core of Gavi’s 4.0 strategy (for the period 2016-2020) as one of its four main goals. However, the organization does not explicitly frame this work through a GPGs lens. Gavi does not fund neglected disease product development directly, but its market shaping efforts—especially its advanced market commitments—have probably helped incentivize such development (e.g., in the development of the Ebola vaccine). Gavi’s efforts on GPGs for health also include support for global polio eradication and the global aid effectiveness agenda; a 2010 analysis found that Gavi ranked fifth among 38 bilateral and multilateral donors in its performance in implementing the Paris Declaration on Aid Effectiveness.

Global Fund. The Global Fund’s support is mostly channeled through country-specific programming: in the 2017-2019 funding cycle, country allocations made up 93% of total funds. Although the fund does not make

specific reference to GPGs for health in its strategy documents, it has recently adapted its model to address collective action challenges. For example, its new “catalytic investments” (\$800 million in the 2017-2019 cycle) support a variety of GPGs for health, e.g., catalyzing market entry of new generation long-lasting insecticidal nets, malaria elimination, and support for supranational laboratories. Other GPGs for health that the fund supports include pooled procurement; market shaping; quality assurance of products; aid effectiveness; and supporting data gathering, use, and sharing to help countries build resilient and sustainable health systems. The fund provides multi-country and regional grants, e.g., for malaria elimination (specifically focusing on eliminating cross-border spread) and to counter drug-resistant malaria, TB, and HIV. It does not fund product development directly, but plays a role in supporting product innovation through smoothing market entry.

World Bank. The World Bank has become increasingly explicit in its role as a leader and provider of GPGs. Its 2016 report “Forward Look – A Vision for the World Bank Group in 2030” highlights leading on the GPGs agenda as one of the bank’s several strategic directions; its 2018 capital package included \$100 million dedicated to GPGs. World Bank projects typically use a country-based approach but the bank also supports regional and multi-country projects, such as for minimizing cross-border health threats (e.g. regional HIV control) and to support the East Africa Public Health Laboratory Networking Project. The bank supports innovative financing mechanisms, such as International Development Agency (IDA) “buy-downs,” which allow donors to commit to pay for part or all of an IDA loan if a country achieves a target such as eliminating polio. After publication of a 2017 World Bank study on drug-resistant infections, the bank began systematically including AMR in its health investments; it is also “creating an investment framework for the existing AMR Global Action Plan to be used by policymakers.” The bank supports both outbreak preparedness and response and has established three relevant new initiatives: (i) the Global Crisis Risk Platform, (ii) the Pandemic Emergency Financing Facility, and (iii) the Global Preparedness Monitoring Board. Knowledge sharing is a major pillar of the World Bank’s work.

WHO. GPGs for health are one of the three key pillars of the WHO’s 13th General Programme of Work (GPW), which covers the period 2019-2023; the GPW states that “WHO’s role in providing GPGs that ensure health for all people within and across national boundaries has never been more relevant.” In 2018 the WHO’s Department of Health System Governance and Financing established a new knowledge program on financing “common goods for health.” WHO is a knowledge-based organization, hosting research programs, coordinating research, and sharing its findings and data worldwide; it is widely considered to have global authority on health norms, standards, and regulations and it plays a key role in global health coordination, convening, and accountability. Its constitution grants it normative powers related to international health challenges through the use of a variety of instruments. WHO has positioned itself as a champion for innovation by shaping, scaling, and amplifying innovative efforts; it focuses on building the capacity of health research systems, setting research priorities and standards, and translating research into policy-relevant actions. WHO plays a central role in overseeing emergency preparedness and coordinating emergency responses; it also participates in or leads on several global and regional efforts to prevent cross-border disease movement and eliminate malaria and polio. It has played an important role in curbing the cross-border spread of tobacco and in tackling AMR; publishing the Global Action Plan on AMR in 2015.

Cross-cutting findings and our recommended actions

Taking a cross-organizational view, five key findings led us to propose five actions that could help to align these organizations in their support for GPGs for health and deliver on the Global Action Plan.

Finding #1. Organizations need an explicit GPGs for health strategy

All four multilateral organizations support GPGs for health in different ways, but there is variation in how clear or explicit each organization is about its support. The definition and use of the term GPGs for health is inconsistent both across and within each multilateral organization. Our analysis found that no organization has articulated a clear organization-wide definition of GPGs.

Action 1: We suggest that all of the multilateral organizations studied adopt an explicit organizational point of view on their support for GPGs for health. The Global Action Plan calls for cross-organizational alignment to increase resources and provision of GPGs for health, yet internally there are inconsistencies on how organizations view their support. Without a clear organizational understanding of each organization's efforts, cross-organizational alignment and tracking will be difficult.

Finding #2. A common definition of GPGs for health is needed

Multilateral organizations agree that the SDGs and broader health goals cannot be achieved without supporting GPGs, and the Global Action Plan calls for such support, but the lack of consensus on a definition of GPGs is a barrier.

Action 2: Despite the inclusion of GPGs for health in the Global Action Plan, no definition was provided. Given the varied use of this framing across the organizations, we recommend that the multilateral organizations seek to align on a common definition of GPGs for health. The Global Action Plan calls for collaborating to finance and provide essential GPGs for health yet without agreement on the scope of this call, it will be very difficult to measure or track collaboration to achieve alignment. If settling the definitional debate is not feasible in the short-term, identifying specific priority goods may be a useful exercise until organizations can come to an agreement on the boundaries of this agenda.

Finding #3. Organizations should assess progress and challenges with existing GPGs windows and mechanisms

Existing organizational mandates and structures may not be conducive to supporting GPGs for health. Even when mandates are not the barrier, the structure and practices of the organization may not be conducive to reaching its full potential to support the GPGs for health agenda. Nevertheless, all four organizations included in our analysis do have windows or mechanisms to support GPGs for health (e.g. the Global Fund's strategic initiatives and the World Bank's GPGs window); thus, there could be scope to build upon these existing efforts.

Action 3: We recommend that organizations assess their existing GPGs windows and mechanisms to evaluate and jointly share their assessments of progress and challenges. This information will be useful to other organizations contemplating increased or enhanced engagement in GPGs for health and provide evidence to organizations whose boards may be risk-averse due to lack of evaluation of collective action efforts. For situations where a board may be risk-averse but the staff are eager to engage, we suggest identifying (i) what information the board would require to engage further on GPGs, and (ii) where there are flexibilities in the organization's structure to expand, or pivot to, support for GPGs within the context of existing programs.

Finding #4. A long-term, sustained financing mechanism for GPGs for health will ultimately be needed

Multilateral organizations are supportive of increased attention on GPGs for health, but views diverge around who should finance GPGs and where funds for GPGs should come from. One key area of disagreement and debate is whether or not there should be a dedicated financing mechanism solely to fund GPGs for health. At present, support for GPGs for health is ad-hoc.

Action 4: A long-term, sustained financing mechanism for GPGs for health will ultimately be needed to overcome the unreliable and fluctuating funding for these goods. The recent launch of new earmarked funding mechanisms for GPGs for health, such as the Coalition for Epidemic Preparedness Innovations, and of new funding aggregators, such as the G20 Antimicrobial Research and Development Hub, show that there has been innovation in funding GPGs for health. Nevertheless, GPGs for health will ultimately require compulsory collective financing, such as through some form of global taxation (e.g., on fossil fuels or financial transactions).

Finding #5. The WHO should be adequately funded to provide overarching governance for GPGs for health

As with global health cooperation more broadly, financing for GPGs for health is fragmented and poorly coordinated, with no clear overarching governance. In addition to the problems laid out above—from a lack of a common definition of GPGs for health to a variation in how explicit organizations are in their GPGs strategy—there is also no “supra-organizational” structure to provide overarching direction and prioritization.

Action 5: Given the WHO’s mandate, it is arguably the best placed of the multilateral organizations for providing overarching governance for GPGs for health—but to do so it will need a secure, sustained funding stream to support this role.

1 INTRODUCTION

1.1 Global public goods (GPGs) for health

In a historic move at the World Health Summit in October 2018, 12 multilateral health and development organizations signed on to the joint Global Action Plan for Healthy Lives and Well-being for All (the Global Action Plan). This Global Action Plan, coordinated by the World Health Organization (WHO), seeks to unite the work of these 12 organizations “to enhance collective action and accelerate progress towards the Sustainable Development Goals (SDGs).”¹

The Global Action Plan featured a call to align efforts across organizations to strengthen the provision of global public goods (GPGs) for health (see section 1.2). The four largest multilateral health financing organizations have recently shown heightened interest in engaging in GPGs for health individually (Box 1), as well as collectively, as seen in the Global Action Plan.

The strict definition of a GPG for health, as defined in economic terms, is a health good that is “non-rival” (if one person consumes it, this consumption does not reduce the value of the good to others) and “non-excludable” (no one can be denied access to the good).² However, some members of the global health community have come to use the term GPGs for health in a broader way, referring to a wider **set of collective action activities that address transnational health challenges**, such as research and development (R&D) for neglected diseases, pandemic preparedness and response, and global health leadership and stewardship.³ In this paper, we use this broader framing.

Despite the critical importance of GPGs for health in achieving the health-related SDGs, only about one-fifth of donor funding for health supports such goods.³ The under-funding of collective action activities was starkly illustrated in the 2014-2016 Ebola epidemic in West Africa. There was no Ebola treatment, vaccine, or rapid diagnostic test (RDT), reflecting under-investment in product development for neglected diseases; regional surveillance and preparedness systems performed poorly; and the WHO came under heavy criticism for its lack of leadership.⁴

Box 1. Examples of multilateral organizations’ interest in GPGs for health⁵

Former **World Bank** President Jim Kim made “a much expanded role for the World Bank Group in the Global Public Goods agenda” a priority at the start of his second term.⁶ The Bank’s shareholders recently designated \$100 million in income or profit from its lending specifically to support GPGs, a decision by the bank’s shareholders “to spend ‘collective’ money for the collective or common good at the global level.”⁷

The WHO decided on GPGs for health as one of three strategic shifts in its latest General Programme of Work (GPW).⁸

The Global Fund’s 2017-2022 strategy includes \$194 million for “strategic initiatives”—catalytic investments that cannot be delivered through country grants, many of which are GPGs for health (e.g., malaria elimination and piloting malaria vaccine introduction).⁹

Gavi’s deliberations about its 2021-2025 strategy include ways in which GPGs for immunization (e.g., market shaping to bring down vaccine prices) could be made available to benefit vulnerable children in a world where the divide between developed and developing countries becomes increasingly blurred.¹⁰

Our previous research has quantified how much development assistance for health (DAH) supports GPGs for health,³ identified the financing gap for GPGs,³ and outlined areas of convergence among major multilateral organizations around key collective action challenges.⁵ Building on this work, **our current analysis examines multilateral support for GPGs for health, focusing on the four largest multilateral health organizations, and identifies opportunities for aligning support for the GPGs for health agenda.** The four multilateral organizations are Gavi, the Vaccine Alliance (Gavi), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the World Bank, and the WHO. This analysis is timely given the increased attention to GPGs for health in the Global Action Plan (Section 1.2).

This paper intends to fill a gap in the literature on how major multilateral organizations define and support the GPGs for health agenda. Understanding their current definitions and support is critical for alignment to take place. Using this information, we identify common themes and barriers for supporting this agenda and provide actionable recommendations for aligning support to move the GPGs for health agenda forward.

Specifically, this study aims to answer three key questions:

1. *How do these four organizations define GPGs for health and situate GPGs within their own strategies?*
2. *How do these four organizations currently contribute to supporting GPGs for health?*
3. *Taking a cross-cutting view of the four organizations, what steps can these organizations take to align their support for GPGs for health to deliver on the Global Action Plan?*

We hope that this paper aids in the discussions and planning for implementing the Global Action Plan, particularly given its prioritization of GPGs for health, scheduled to be launched at the September 2019 United Nations (UN) General Assembly.

1.2 The Global Action Plan for Healthy Lives and Well-being for All: a timely opportunity

The Global Action Plan¹ is intended to influence how the twelve signatory multilateral organizations operate “at all levels.” Phase 1 of the Global Action Plan is organized under three strategic approaches: **align, accelerate, and account.** Specifically, signatories to the Global Action Plan agreed to: “commit to **align** our joined-up efforts with country priorities and needs, to **accelerate** progress by leveraging new ways of working together and unlocking innovative approaches, and **account** for our contribution to progress in a more transparent and engaging way.”¹¹ The final plan is expected to be delivered at the 2019 UN General Assembly.¹¹ Leading up to the Assembly, organizations are mapping out their roles and functions and identifying ways to better coordinate their work towards accelerating achievement of the health-related SDGs.

The Global Action Plan includes specific language on GPGs for health on two occasions and highlights key GPGs activities on several occasions; these are outlined below and illustrated in Figure 1.

One of the featured elements of the ‘align’ strategic approach is to “strengthen the provision of global public goods for health.” Specifically, the signatories agree to “collaborate on financing and resource mobilization approaches and strengthen provision of essential global public goods for health to ensure smooth transitions to sustainability.” This commitment to greater alignment extends to global health priorities absent in the SDG targets, such as antimicrobial resistance (AMR), that are critical to achieving global health goals. The signatories also commit to “enhance and deepen supply chain cooperation,” highlighting areas of collective action such as quality assurance, procurement guidance, and market influence (i.e., market shaping, data driven decision-making, and demand forecasting.)

Figure 1. Mapping the inclusion of GPGs in the Global Action Plan

Mapping the inclusion of GPGs in the Global Action Plan		
Three strategic approaches		
Align	Accelerate	Account
<ul style="list-style-type: none"> • “We will collaborate on financing and resource mobilization approaches and strengthen provision of essential global public goods for health” • Antimicrobial resistance was identified as a priority for collaboration despite not being explicitly included in SDG targets • “Enhance and deepen supply chain collaboration” 	<ul style="list-style-type: none"> • Accelerator 1: Sustainable financing, including for “critical public goods” • Accelerator 5: R&D, innovation and access • Accelerator 6: data and digital health • Accelerator 7: Innovative programming in fragile and vulnerable states and for disease outbreak responses 	<ul style="list-style-type: none"> • No milestone specific to GPGs

Based on information in the Global Action Plan (reference 1)

GPGs also feature in the ‘accelerate’ section of the Global Action Plan. The signatories commit to working together to ensure that “critical public goods (such as epidemic and pandemic preparedness)” are adequately funded. Four of the seven accelerators in the Global Action Plan also fall within our GPGs framework (outlined in Section 2.3, Table 1):

- **Accelerator 1 - Sustainable financing** focuses on improving the “efficiency and equity” of health spending through improving domestic resources and the impact of DAH, as well as ensuring adequate funding for primary health care and “critical public goods (such as epidemic and pandemic preparedness).”
- **Accelerator 5 - R&D, innovation, and access** highlights the role that R&D, innovation, and access play in achieving global health goals. Specifically, it focuses on pathways to enable innovations to be delivered at scale.
- **Accelerator 6 - Data and digital health** focuses on data requirements for monitoring progress towards the SDGs and opportunities for advancement by harnessing digital health.
- **Accelerator 7 - Innovative programming in fragile and vulnerable states and for disease outbreak responses** addresses the crucial role of enhanced coordination to manage disease outbreaks and epidemics, particularly since most major epidemics occur in fragile/vulnerable states.

Although the Global Action Plan’s phase 1 document notes that the targets included were based on the SDGs and were illustrative rather than comprehensive, there is no mention of GPGs in the account section of the Global Action Plan.

Fostering leadership and stewardship is present throughout the Global Action Plan, including the account section, and **coordinating this plan to achieve these ambitious yet crucial ideals for collaboration is in and of itself a GPG.**

2 METHODS

2.1 Selection of multilateral health organizations

This analysis focuses on the four largest multilateral contributors to DAH: Gavi, the Global Fund, the World Bank, and the WHO. These organizations were identified as the largest contributors using the Organization for Economic Co-Operation and Development's 2016 Creditor Reporting System disbursement data for Health (purpose code 120) and Population Policies/Programmes and Reproductive Health (purpose code 130). Each organization has individually signaled interest in GPGs engagement (Box 1) and are signatories to the Global Action Plan.

2.2 Our approach

We wanted to understand how GPGs for health are featured within each organization's strategy, examine how the organizations are currently supporting GPGs for health, and highlight opportunities for enhanced provision of GPGs for health. We began with a review of organization-specific strategy and finance documents, as well as organization-specific grants and projects databases. We also reviewed existing relevant academic and grey literature. To fill in the gaps from this desk-based research, we conducted 46 key informant interviews with senior leadership within these organizations and with individuals from think tanks and academia who have expertise in GPGs for health and/or our multilateral organizations of focus (Appendix 1).

We developed a research framework to guide our efforts. The framework had three key domains: (i) the role of GPGs within an organization's strategy, (ii) the way an organization currently engages in GPGs for health, and (iii) opportunities for enhanced provision.

In Section 3, we examine each organization in turn, with a focus on the first two domains. We examine their support using the Commission on Investing in Health's (the CIH's) global functions framework (Table 1). We only give examples of support in cases where we found documented evidence that the organization is funding these activities and that they have had an impact. We briefly describe additional activities that (a) key informants within the organization identified as GPGs that their organization focuses on, and (b) have not been well documented in terms of funding levels and impact (see Sections 3.1.3, 3.2.3, 3.3.3, and 3.4.3).

In Section 4, we synthesize the findings of our literature review and key informant interviews and then draw on this synthesis to provide actionable recommendations for enhancing the provision of GPGs for health to help deliver on the Global Action Plan.

Other studies have assessed how particular multilateral organizations engage in GPGs for health or how one particular multilateral could be restructured to play a larger role as a GPGs for health provider.^{3,12} To our knowledge, no analyses have been conducted *across* these major global health multilateral organizations to understand how they individually and collectively support the GPGs for health agenda, and how that support could be enhanced.

2.3 How we defined GPGs for health

Yamey and colleagues argue that, "one challenge surrounding the agenda on GPGs for health—understanding, supporting, and researching it—is the variance in terminology and the lack of a common definition."¹³ As mentioned previously, the global health community tends to use the expression "GPGs for health" in a way that goes beyond the narrow economic framing of a public good (a good that is non-rival

and non-excludable). For example, a recent analysis of the role of the World Bank in tackling future development challenges argues that the World Bank should focus more on GPGs and provides examples of GPGs that go beyond the economic framing to include AMR and climate mitigation.¹⁴

In our own work, we have used a framework proposed by the CIH, in which the term “global functions” is used to refer to a set of activities that have transnational health benefits (Table 1).¹⁵ The CIH categorized global functions into three types: (i) GPGs, (ii) the control of negative regional or global externalities (e.g., tackling AMR or preparing for pandemics), and (iii) global health leadership and stewardship. As previously mentioned, **in this paper, we use the term GPGs for health as shorthand to represent this broader set of global collective action activities**, even though it is not always used in alignment with the narrow economic framing of a public good.¹⁶

According to the economic framing of GPGs, only items such as the generation and sharing of health-related knowledge, publishing open access health research papers, sharing of health-related intellectual property, and the setting of international health norms and standards could be included as a GPG for health.¹³ However, as we saw during the 2014-2016 Ebola epidemic, there are multiple collective action activities that go beyond the above stated economic definition of GPGs for health. The narrow definition is inadequate to reflect the variety of collective actions required to avoid another regional Ebola epidemic or to tackle many other transnational health challenges, and therefore we use the broader framing for this paper. The climate-related development sector has likewise broadened its definition of GPGs for similar reasons.

Adding to the complexity of GPGs terminology, the WHO recently launched a program of work on “common goods for health.”¹⁷ The WHO uses this term to refer to both public goods and activities that address market failures or that have major externalities. A special collection of papers on financing common goods for health, funded by the WHO, will be published in September 2019 in the journal *Health Systems and Reform* and launched at the UN General Assembly.

There is a broad range of collective action challenges, such as climate change, that are beyond the scope of this paper but will demand multilateral engagement in the future. This paper can provide a framework for addressing these and other challenges in future work.

Table 1. Global functions: three types of collective action

Function	Key Examples
Supporting GPGs	<ul style="list-style-type: none"> • Development of new health products for neglected diseases • Setting of international norms, standards, and guidelines • Generation and cross-border sharing of health data • Intellectual property sharing • Knowledge generation and sharing • Market shaping • Population, policy, and implementation research • Risk shifting and bearing
Managing cross-border regional & global externalities	<ul style="list-style-type: none"> • Control of cross-border disease movement (including elimination/eradication efforts) • Curbing the cross-border marketing of addictive and other unhealthy goods • Outbreak preparedness and response • Responses to antimicrobial resistance
Fostering leadership and stewardship	<ul style="list-style-type: none"> • Agency for marginalized and neglected sub-populations • Convening for consensus building on policies and priorities • Health and cross-sectoral advocacy (e.g., education, environment, trade)

3 ORGANIZATIONAL OVERVIEWS

3.1 Gavi, the Vaccine Alliance

Key messages

- Supporting GPGs for health, especially market shaping for vaccines and funding global vaccine stockpiles to prevent outbreaks, is a key element within Gavi’s strategy
- However, the organization does not explicitly frame this work through a GPGs lens
- Market shaping for vaccines is at the core of Gavi’s 4.0 strategy (for the period 2016-2020) as one of its four main goals
- Gavi does not fund product development directly, but its market shaping efforts—especially its advanced market commitments—have probably helped incentivize such development (e.g., in the development of the Ebola vaccine)
- Gavi’s efforts on GPGs for health also include support for global polio eradication and the global aid effectiveness agenda; a 2010 analysis found that Gavi ranked fifth among 38 bilateral and multilateral donors in its performance in implementing the Paris Declaration on Aid Effectiveness

3.1.1 GPGs and Gavi’s organizational mandate

Gavi support is primarily country-specific and focuses on financing vaccines for low-income countries (LICs) and middle-income countries (MICs) as well as health systems strengthening. Gavi does not have an explicit GPGs strategy and GPGs terminology does not appear in its strategy and finance documents. Despite this lack of an explicit, defined approach, Gavi does contribute to GPGs for health and according to a key informant, **GPGs are “essential activities as part of Gavi’s model,”** specifically its market shaping and outbreak preparedness and response activities.

Gavi is currently guided by its fourth strategy (“Gavi 4.0,” for the period 2016-2020). **Market shaping for vaccines is at the core of Gavi’s 4.0 strategy** as one of four main goals. In its 2016-2020 supply and procurement strategy, Gavi identified three strategic priorities for its market shaping efforts: (i) deliver on healthy markets, (ii) take a long term view of markets as countries become increasingly independent financiers of immunization programs, and (iii) support product innovation to better meet country needs.¹⁸ Previously, Gavi only sought to shape the market for vaccines that had “market shaping concern” prioritized through its vaccine investment strategy or via special board decisions, as in the case with Ebola. In Gavi’s 2016-2020 strategy, all funded vaccines, whether supported for routine or emergency use, are within scope for market shaping.¹⁸

The other three goals in the 2016-2020 strategy include the vaccine goal (accelerate equitable uptake and coverage of vaccines), the systems goal (increase effectiveness and efficiency of immunization delivery as an integrated part of strengthened health systems), and the sustainability goal (improve sustainability of national immunization programs).¹⁸ **As part of its vaccine goal, Gavi also funds global vaccine stockpiles to prevent disease outbreaks,** which can be accessed by both Gavi and non-Gavi countries alike.

Gavi is approaching the final stages in the development of its new Vaccine Investment Strategy for 2021-2025.¹⁹ All vaccines under consideration fall under one of these three categories: endemic disease prevention through routine immunization, epidemic preparedness and response, and inactivated polio vaccine (IPV) support after 2020.¹⁹ It is also exploring whether and how it might engage in pandemic influenza preparedness.¹⁹ The Gavi Board approved the evaluation framework and approach for vaccines for epidemic preparedness and response in June 2018, incorporating additional key criteria around epidemic risk reduction above and beyond its evaluation for endemic disease prevention.¹⁹

Simultaneously with its upcoming vaccine investment strategy, Gavi is deliberating on its fifth overarching organizational strategy. **At the 2018 retreat and board meeting, Gavi's leadership raised key questions about what might be in scope for the future.** For example, Gavi CEO Seth Berkley posed questions around how its platform may be used to improve access to non-immunization interventions, how it can address threats such as AMR and global health security, and to what extent Gavi should engage in reaching MICs that have been left behind and face lower immunization coverage than some LICs.¹⁰

3.1.2 Evidence on Gavi's GPGs for health engagement

Most of Gavi's financing is directed at supporting vaccination programs in Gavi-eligible countries. Nevertheless, previous analyses have suggested that in 2013, about **20% of Gavi's finances supported global functions.**³

Supporting GPGs for health

Market shaping. Gavi has a specific target to incentivize the development of suitable and quality products under its market shaping goal.²⁰ To do so, it leverages a variety of forecasting, planning, and assessment tools (e.g., detailed product profiles, procurement roadmaps, and strategic demand scenarios) as well as innovative financing instruments (e.g., the pneumococcal Advanced Market Commitment, the International Finance Facility for Immunization, and the Advance Purchase Commitment for Ebola). Gavi's market shaping efforts have helped bring down the prices of some vaccines across Gavi-eligible countries (and to non-Gavi countries that procure vaccines through UNICEF).

For example, Gavi helped reduce the price of the pentavalent DTP-HBV-*Haemophilus influenzae* vaccine²¹ for Gavi and non-Gavi countries that procured the vaccine via UNICEF.²² With Gavi's support, Kenya was the first country to introduce this vaccine (in 2001), and by 2014, 73 countries had introduced it (South Sudan was the last). With this increasing demand and the secured funding that Gavi provided, the number of companies producing the vaccine grew—from just one supplier in 2001 to five suppliers by 2017. The price has also fallen, from US\$3.50 per dose for Gavi-eligible countries in 2001 to \$0.68 per dose by 2017 (about 20% of the price offered in 2001).

Nevertheless, the prices of many vaccines (e.g., pneumococcal conjugate vaccine) remain very high for Gavi ineligible MICs. There are documented examples, such as those pointed out by Janeen Madan Keller and Amanda Glassman at the Center for Global Development (CGD), where Gavi's market shaping approach could have had negative unintended consequences, such as interfering with supply security.²³ Keller and Glassman note that “for the pentavalent vaccine (Penta), where prices have been pushed below \$1 per dose, one manufacturer exited the market in 2017,” which illustrates the importance of “balancing trade-offs between price and supply security.”

Product development for neglected and emerging infectious diseases. Gavi does not fund product development directly, but there is evidence that its market shaping efforts—especially its advanced market commitments—have helped incentivize such development, such as in the development of the Ebola vaccine (Box 2).

Managing regional and global negative cross-border externalities

Stockpiling of vaccines for outbreak preparedness. Gavi's stockpiling of three vaccines (cholera, meningitis, and yellow fever), and eventually for an Ebola vaccine once licensed and recommended by WHO (Box 2), is an important global function that strengthens outbreak preparedness. Gavi's stockpiles are accessible to all countries, although only Gavi-funded countries may access the stockpiles free of charge.²⁴

At the June 2016 board meeting, the Gavi Board approved Gavi's support for emergency stockpiles as an "integral part of integrated disease control strategies."²⁵ In light of this change, emergency stockpiling will become an essential part of its holistic vaccine package rather than its previous role as complementary to routine immunizations.

Global eradication of polio. Gavi's efforts, which complement those of the Global Polio Eradication Initiative (GPEI), include supporting countries to introduce IPV into the routine immunization schedule. Its polio efforts help contribute to the eradication of polio globally. Given the GPEI's extension of its deadline for eradicating polio, Gavi's discussions on its 5.0 strategy include how its funding for IPV may evolve after 2020.²⁶

Box 2. Advance purchase commitment for Ebola

At the 2016 World Economic Forum in Davos, Gavi and Merck signed an agreement to support the development of an Ebola vaccine.²⁷ Gavi committed \$5 million to purchase doses of a fully licensed vaccine when it becomes available. This commitment provided an incentive for the rapid development of one of the world's first licensed Ebola vaccines.²⁸ Additionally, Gavi and Merck agreed that 300,000 doses would be made available for either trials or emergency use during the development process prior to licensure.²⁷ Gavi also agreed to fund an Ebola vaccine stockpile once it is licensed and receives the necessary WHO recommendation.²⁴ The vaccine, which had undergone phase 3 trials but was not yet licensed, was first used during the 2018 Ebola outbreak in the Democratic Republic of Congo.²⁸

A key informant confirmed that this advance purchase commitment for a pre-licensure vaccine was likely a one-time arrangement due to particular circumstances during the 2014-2016 Ebola outbreak. The informant agreed that while successful, Gavi was acting in an environment where other actors, such as the Coalition for Epidemic Preparedness and Innovations (CEPI), now operate. Gavi's approach in the future will be case-by-case; Gavi could possibly become a platform for delivering CEPI-funded vaccines.

Fostering global health leadership and stewardship

Aid effectiveness. Gavi has formally made a commitment to the Paris Declaration on Aid Effectiveness and supports other aid effectiveness principles.²⁹ A 2010 analysis by the World Bank found that Gavi ranked fifth among 38 bilateral and multilateral donors in its performance in implementing the declaration (e.g., in its alignment with country systems and harmonization of its activities with other donors).³⁰

3.1.3 Additional activities that support global functions

Key informants at Gavi described a number of other activities that could potentially meet the definition of global functions but that have not been well documented in terms of funding levels and impact:

- Knowledge generation and sharing: Gavi has a formal evaluation policy³¹ (which is currently being assessed and reviewed) and an evaluation advisory committee.³² Its evaluation activities aim to "generate evidence and promote learning to support improvements in the performance of Gavi's

programmes and policies.” The evaluation policy supports knowledge exchange networks among its recipient countries, such as the Learning Network for Countries in Transition. One of Gavi’s six strategic focus areas is “improvement in the availability, quality and use of data” and its country investments include modernizing data systems.³³

- AMR: Gavi’s support for vaccination against bacterial diseases (e.g., pneumococcal pneumonia) could potentially have an impact in reducing AMR, though the magnitude of this impact is unclear. The “impact of vaccination on AMR” is a qualitative indicator in Gavi’s Vaccine Investment Strategy framework, an indicator primarily informed by expert opinion.³⁴ According to one key informant, Gavi is currently building its AMR strategy to more quantitatively measure the impact of vaccines on AMR to guide future decision-making processes.

3.2 The Global Fund to Fight AIDS, Tuberculosis, and Malaria

Key messages

- The Global Fund’s support is mostly channeled through country-specific programming: in the 2017-2019 funding cycle, country allocations made up 93% of total funds
- Although the fund does not make specific reference to GPGs for health in its strategy documents, it has recently adapted its model to address collective action challenges
- For example, its new “catalytic investments” (\$800 million in the 2017-2019 cycle) support a variety of GPGs for health, e.g., catalyzing market entry of new generation long-lasting insecticidal nets, malaria elimination, and support for supranational laboratories
- Other GPGs for health that the fund supports include pooled procurement; market shaping; quality assurance of products; aid effectiveness; and supporting data gathering, use, and sharing to help countries build resilient and sustainable health systems
- The fund provides multi-country and regional grants, e.g., for malaria elimination (specifically focusing on eliminating cross-border spread) and to counter drug-resistant malaria, TB, and HIV

3.2.1 GPGs and the Global Fund’s organizational mandate

The Global Fund’s support is mostly channeled through country-specific programming: in the 2017-2019 funding cycle, country allocations made up 93% of total funds.^{35,a} Its country support benefits disease control activities for its three diseases of focus: HIV, tuberculosis (TB), and malaria.

The Global Fund’s 2017-2022 strategy centers on its goal to end epidemics for its three focus diseases. The fund frames its efforts around regional and global health security,³⁶ and views health systems strengthening as the primary line of defense against outbreaks.³⁷ It has elevated “support for resilient and sustainable systems for health” to a strategic objective, and seeks to achieve this objective through a combination of country grant allocations and funding for special initiatives.³⁷

The Global Fund does not have an explicit GPGs strategy nor does explicit GPGs terminology appear within its strategy and financing documents.^{b,38} According to a key informant, **GPGs-focused work is “embedded” in its portfolio** rather than as a separate stream, effort, or line item. For example, **for its 2017-2019 funding**

^a Calculated by authors based on data provided in the ‘Detailed Explanation of the Allocation Methodology 2017-2019’ document.

^b Its only reference to GPGs explicitly is that it hopes its e-market pooled purchasing platform, Wambo, can become a public good.

cycle, the Global Fund launched its first set of catalytic investments, which support several types of GPGs. These catalytic investments made up 7% of the total allocable funds in the 2017-2019 funding cycle and are used to support its areas of focus that “are not adequately accommodated through country allocations but that are essential to achieve the aims of the Global Fund Strategy 2017-2022 and global partner plans.”⁹ The catalytic financing mechanism is “a critical source of financing to catalyze international collective action on global and regional public goods such as insecticide and drug resistance, and malaria elimination.”³⁹

There are three channels for the \$800 million set aside for catalytic investments in the 2017-2019 funding cycle:

1. \$346 million in **matching funds** for strategic priority areas (\$313 million for six priority areas and \$33 million to catalyze market entry of new generation long-lasting insecticidal [LLINS} nets);
2. \$260 million for **multi-country funding** for strategic priority areas (e.g., malaria elimination, supranational laboratories); and
3. \$194 million for eleven **strategic initiatives** that are needed to support the success of country allocations but that cannot be achieved through country grants alone.⁹

Not every Global Fund strategic priority area supports GPGs for health, but this new pool of funding illustrates that the Global Fund can and will change its allocation model to respond to multi-country, regional, and global challenges tied to its disease focus areas, such as emerging malaria and TB drug resistance. Future level of support for catalytic investments in the 2020-2022 funding cycle will depend on the success of the 2019 replenishment.

3.2.2 Evidence on the Global Fund’s GPGs for health engagement

Most of the Global Fund’s financing is directed at supporting national programs for the control of HIV, TB, and malaria. A 2015 analysis suggested that about **10% of the Global Fund’s financing supported global functions.**³

Supporting GPGs for health

Market shaping. The Global Fund has an explicit mandate to shape markets—on both the supply and demand sides—for health products essential for tackling its three diseases of focus.⁴⁰ It facilitates market transparency via data-sharing mechanisms, supports global forecasting efforts, and pools procurement to reduce product prices.⁴¹ The Global Fund’s pooled procurement includes antiretrovirals, antimalarial medicines, LLINs, viral load tests, and RDTs. The aim of pooled procurement is to promote access to competitive market terms and to ensure that quality assured products and technologies are procured in a timely manner.⁴² The Global Fund’s online procurement platform, wambo.org, “gives in-country procurement teams the power to search, compare, and purchase transparently priced, quality-assured products.”⁴³ The platform can be used by Global Fund recipients who use Global Fund financing to procure commodities via the fund’s Pooled Procurement Mechanism.

While the Global Fund has had an explicit focus on market shaping, its own board has repeatedly pushed the organization to do more. For example, as part of the fund’s 2011 Market Shaping Strategy, the Global Fund Board “emphasized its desire for the Global Fund to more actively shape the markets for health products to optimize price, quality, design, and sustainable supply.”⁴⁴

One of the most important market shaping initiatives that the Global Fund launched, in 2010, was the Affordable Medicines Facility-malaria (AMFm), described in Box 3. The AMFm used a donor-funded price subsidy to lower the cost and increase the use of artemisinin-based combination therapies (ACTs), especially in the private sector. The Global Fund came under heavy criticism by malaria experts and health economists

for terminating the AMFm, given that the evaluation of the subsidy showed that it had positive effects.⁴⁵ Although the AMFm itself was discontinued in 2013, the Global Fund continued an ACT subsidy program called the private sector co-payment mechanism that was integrated into its core grant processes.

Product development. Like Gavi, the Global Fund does not fund product development directly. However, it plays a role in supporting product innovation through smoothing market entry.⁹ For example, it has a \$2 million revolving fund that can make advance commitments to manufacturers to bring down market entry risk. The Global Fund also develops product roadmaps to ensure needed products can be brought to scale and has catalytic investments to catalyze market entry for new products, such as LLINs.⁴⁰

Knowledge generation and sharing. The Global Fund supports data gathering, use, and sharing to help countries build resilient and sustainable health systems—data collection becomes a GPG if the resulting knowledge is shared across countries. The fund has two strategic initiatives focused on knowledge generation and sharing: (i) the strategic initiative for prospective country evaluations, which seeks to evaluate and share the Global Fund’s work, and (ii) the strategic initiative for resilient and sustainable systems for health, which focuses on data systems, generation, and use for programmatic action and quality improvements.⁹ The fund also supports countries in establishing national health accounts.

Setting of norms, standards, and guidelines. The Global Fund uses a quality assurance process to ensure that its pooled procurement process features only high-quality products. Its most innovative quality assurance mechanism is the Expert Review Panel, conceived by the Global Fund and hosted by the WHO. This panel provides a minimum level of assurance for a product to gain access to the market more quickly when either one or no product is available on the global market.⁴⁶ The Global Fund then shares lists of products in compliance with its quality assurance policies to help guide product selection for principal recipients.⁴¹

Box 3. The Affordable Medicines Facility-malaria

The AMFm was an innovative market shaping mechanism that operated from 2010-2013 with the aim of reducing the price of quality-assured ACTs (QAACT) and “crowding” out anti-malarial monotherapies, especially those bought in the private sector. In the AMFm, “a donor subsidy at the “factory gate” lower[ed] the cost of ACTs purchased by eligible first-line buyers (i.e., those who buy them directly from the manufacturer).”⁴⁷ The theory behind this approach was that this subsidy would create cost savings that would be passed along the supply chain to the consumer, so that the consumer price would be equal to or lower than cheap mono-therapies (e.g., chloroquine).

The AMFm was piloted in eight countries, and an independent evaluation found “substantial increases in availability and market share, and large price decreases for QAACT in six out of eight pilots.”⁴⁸ Despite the successful results seen in the pilot, the AMFm was discontinued in 2013, although the Global Fund did continue a QAACT subsidy program in a different form, called the private sector co-payment mechanism (CPM).⁴⁹ From 2013, the CPM, which is approved as part of a regular grant rather than a stand-alone financing mechanism, was continued at the national level in six countries. A recent evaluation of the CPM in five countries found that it “was associated with positive and sustained improvements in QAACT availability, price and market share in Nigeria, Tanzania and Uganda, with more mixed results in Kenya, and few improvements in Madagascar.”⁴⁸

Managing regional and global negative cross-border externalities

Control of cross-border disease movement. The Global Fund provides multi-country and regional grants for treatment and prevention of TB and HIV, and for malaria elimination that specifically focus on eliminating cross-border spread.^c

Control of AMR. The Global Fund provides multi-country and regional grants to counter drug-resistant malaria, TB, and HIV. One of its strategic initiatives focuses on developing a new insecticide-treated net to counter the threat of insecticide resistance in Africa.⁹ Several Global Fund grants aim to tackle drug-resistant TB, including in countries with the highest burden of multi-drug resistant TB. The Global Fund’s largest regional grant, the Regional Artemisinin-resistance Initiative, supports five countries in the Greater Mekong Region to tackle drug-resistant malaria.⁵⁰

Fostering global health leadership and stewardship

Aid effectiveness. The Global Fund partners with other institutions that focus on the same three diseases, such as UNITAID, to harmonize existing frameworks and use common definitions to best support health outcomes of its intended populations.⁴¹ However, a 2010 analysis by the World Bank found that the Global Fund ranked poorly—at number 22—among 38 bilateral and multilateral donors in its performance in implementing the Paris Declaration on Aid Effectiveness.³⁰

3.2.3 Additional activities that support global functions

Key informants at the Global Fund described one other activity that could potentially meet the definition of a global function but that has not been well documented in terms of funding levels and impact:

- **Outbreak preparedness and response:** The Global Fund’s 2017-2023 strategy focuses on investing to end epidemics for its three focus diseases and has framed its response around regional global health security.^{36,37} It has elevated “support for resilient and sustainable systems for health” to a strategic objective, and seeks to achieve this objective through a combination of country grant allocations and special initiatives funding.³⁷ One of its strategic initiatives is an emergency fund, which supports prevention and treatment services for its three focus diseases during emergency situations.³⁷ Executive Director Peter Sands highlighted this shift in a 2018 speech: “Taking a more integrated approach to health security, encompassing both endemic and emerging diseases, makes sense from a practical perspective.”⁵¹

3.3 World Bank Group

Key messages

- The World Bank has become increasingly explicit in its role as a leader and provider of GPGs
- Its 2016 report “Forward Look – A Vision for the World Bank Group in 2030” highlights leading on the GPGs agenda as one of the bank’s several strategic directions; its 2018 capital package included \$100 million dedicated to GPGs
- World Bank projects typically use a country-based approach but the bank also supports regional and multi-country projects, such as for minimizing cross-border health threats (e.g. regional HIV control) and to support the East Africa Public Health Laboratory Networking Project

^c This is based on the author’s review of the Global Fund grants portfolio.

- The bank supports innovative financing mechanisms, such as International Development Agency (IDA) “buy-downs,” which allow donors to commit to pay for part or all of an IDA loan if a country achieves a target such as eliminating polio
- After publication of a 2017 World Bank study on drug-resistant infections, the bank began systematically including AMR in its health investments; it is also “creating an investment framework for the existing AMR Global Action Plan to be used by policymakers”
- The bank supports both outbreak preparedness and response and has established three relevant new initiatives: (i) the Global Crisis Risk Platform, (ii) the Pandemic Emergency Financing Facility, and (iii) the Global Preparedness Monitoring Board
- Knowledge sharing is a major pillar of the World Bank’s work

3.3.1 GPGs and the World Bank’s mandate

Although it does not have a strategy specifically aimed at GPGs, the World Bank Group has become **increasingly explicit** about its engagement in GPGs in recent years. Former President Jim Kim made “a much expanded role for the World Bank Group in the Global Public Goods agenda” a priority at the start of his second term.⁶

In 2016 the World Bank published “Forward Look – A Vision for the World Bank Group in 2030” that outlined a common vision for “how the World Bank can best support the development agenda for 2030 while staying focused on its own corporate goals.”⁵² In its vision to “serve all clients,” **leading on the GPGs agenda was highlighted as one of the bank’s several strategic directions.** The 2018 Annual Report echoed the same sentiment with its introductory letter from the board emphasizing its expectations that the World Bank will “intensify efforts to lead on global issues—including the promotion of global public goods.”⁵³

The 2018 capital package was based on Forward Look. The package represented “...a major shift in approaches to address development challenges and in the scale of engagement in many areas, including addressing global public goods.”⁵⁴ **The 2018 package included \$100 million dedicated to GPGs, funded from the World Bank’s net income or profit from its lending to MICs.**⁷ Although not a large amount of money, this funding, argued Nancy Birdsall, president emeritus of the CGD, is “a big breakthrough,” for two reasons.⁷ First, she said, it reflects “a ‘collective’ decision agreed among all the Bank’s shareholders, including middle- and low-income countries, to spend ‘collective’ money for the collective or common good at the global level.” Second, the money will be used not only or not mostly as grants, but “to reduce the cost of borrowing for middle-income countries willing to borrow for projects and programs that generate some benefits beyond their own borders.” This window, as well as the World Bank’s engagement in GPGs more broadly, goes beyond the health sector to include, for example, GPGs related to the environmental sector.

3.3.2 Evidence on the World Bank’s GPGs for health engagement

World Bank projects typically support country-specific functions, but there are a significant number of regional and multi-country projects. Many of its financing windows/platforms are global or regional in nature, with a new financing window dedicated solely to GPGs (though not specific to health-focused GPGs). One previous analysis estimated that in 2013, about **5% of the International Development Association’s finances supported global functions.**³

Supporting GPGs for health

Knowledge generation and sharing. Knowledge sharing is a main pillar of the World Bank’s work. The bank’s support comes in the shape of policy advice, research and analysis, and technical assistance.⁵⁵ The bank’s

technical expertise spans several sectors and countries, placing it in a position to “steer global agendas and deliver public goods.”⁵⁵

Its open knowledge repository hosts its publications and data platforms (e.g., HealthStats)⁵⁶ and it provides collaborative platforms, such as the Collaboration for Development, to enable “online brainstorming, consultations, discussions, knowledge-sharing and learning among people working on similar topics.”

Setting of norms, standards, and guidelines. The World Bank has contributed to medicines regulation through multi-country coordinating projects in Africa and serves as the steward of the Global Medicines Regulatory Harmonization trust fund.^{57, 58}

Managing regional and global cross-border externalities

Outbreak preparedness and response. The World Bank is engaged in both outbreak preparedness and response, but has recently called for a “pivot to preparedness and prevention.”⁵⁹ Its leadership in this area is shown by the establishment of three new efforts:

- The first is the recently formed Global Crisis Risk Platform, which will “bring together the World Bank’s expertise in a coherent and strategic way to mitigate risks prior to becoming crises.”⁵⁹
- The second is the Pandemic Emergency Financing Facility (the PEF, Box 4),⁶⁰ a new surge fund for rapid support for large scale disease outbreaks. The PEF has two windows: an “insurance window” funded through the sale of “pandemic bonds” and a “cash window” funded by donors. The insurance window has come under major criticism for the strict, narrow criteria that must be met for a country to receive funds—for example, at the time of writing this, the Democratic Republic of Congo is currently ineligible despite its very serious Ebola outbreak and the recent cross-border spread to Uganda.⁶¹
- The third is the Global Preparedness Monitoring Board, led in collaboration with the WHO “to monitor the world’s readiness to respond to outbreaks and other health emergencies.”⁶²

The bank finances pandemic preparedness through financing windows such as the Crisis Response Window and the PEF, and by supporting pandemic preparedness via the Eighteenth Replenishment of IDA in 25 countries. The bank supports surveillance through efforts like the Regional Disease Surveillance Systems Enhancement⁶³ in West Africa and convenings of country leaders to role-play response activities during pandemic simulation exercises.⁶⁴

Control of cross-border disease movement. The World Bank has provided multi-country and regional support for minimizing cross-border health threats, such as regional HIV control efforts.^d It has financed the East Africa Public Health Laboratory Networking Project, which focuses on improving surveillance capacity and joint monitoring of TB and other communicable diseases.⁶⁵ The bank also supports innovative financing mechanisms, such as IDA “buy-downs,” which allow donors to commit to pay for part or all of an IDA loan if a country achieves a target such as eliminating polio.⁶⁶

Control of AMR. After a 2017 World Bank study on drug-resistant infections, the bank began systematically including AMR in its health investments.⁶⁷ It is also “creating an investment framework for the existing AMR Global Action Plan to be used by policymakers.”⁶⁸

^d Central Asia, Central America, Pan Caribbean, Abidjan – Lagos transport corridor.

Box 4. Pandemic Emergency Financing Facility

In 2016 in response to the 2014 West Africa Ebola outbreak, the World Bank, with support from Japan, Germany, and the WHO, launched the PEF. This financing mechanism includes private sector finance and is designed to rapidly release funds for immediate support to control large-scale disease outbreaks in LICs. The PEF has two windows: cash (\$50-\$100 million) and insurance (up to \$500 million). The insurance window—the first of its kind for pandemic risk—covers only outbreaks that meet specific criteria in terms of the type^e and magnitude of disease outbreak.⁶⁹ The cash window is available when criteria required for the larger window have not been met.⁶⁹ The PEF committed its first funding (\$12 million) from the cash window during the 2018 Ebola outbreak in the Democratic Republic of the Congo.⁷⁰ However, this fund has raised some concerns. As Stein and Sridhar argue, the fund could have several unintended consequences: donors may reallocate funds away from preparedness, private sector experience and savvy could lead to overcharging donors for risk coverage, and the fund raises a range of ethical concerns, including who stands to benefit from a large-scale disaster.⁶⁹

3.3.3 Additional activities that support global functions

Key informants at the World Bank described a number of other activities that could potentially meet the definition of global functions but that have not been well documented in terms of funding levels and impact:

- **Product development:** One key informant at the World Bank suggested that the bank does not have a comparative advantage to fund R&D. Nevertheless, it has provided modest funding for some R&D efforts, such as \$3.6 million in support for the International AIDS Vaccine Initiative.⁷¹ The World Bank also helps countries boost their own health product development industries, which in turn could help support global health product development. As one key informant at the World Bank noted: “India has some very good ventures in R&D support, e.g., the Indian National Council has used [International Bank for Reconstruction and Development] loans to build biotech capacity – and now Turkey is interested in doing something similar.”
- **Priority setting:** The bank has held itself accountable to leading improvements in cross-cutting GPGs challenges. In the Forward Look, the bank emphasizes its intention to “lead on global issues.”⁵² The bank’s strategy highlights that it is “increasingly called upon to steer global agendas and deliver public goods, and its development leadership serves as a platform for global and regional partnerships.”⁷² For example, the World Bank’s establishment of the Global Financing Facility helps prioritize reproductive, maternal, newborn, and child health on policy agendas.

3.4 World Health Organization

Key messages

- GPGs for health are one of the three key pillars of the WHO’s 13th GPW, which covers the period 2019-2023; the GPW states that “WHO’s role in providing GPGs that ensure health for all people within and across national boundaries has never been more relevant”

^e Covered outbreaks include: pandemic Influenza (new or novel influenza A virus), coronaviruses (e.g., SARS, MERS), filoviruses (Ebola, Marburg), Crimean Congo haemorrhagic fever, Rift Valley fever, and Lassa fever. Additionally, the number of deaths must be considerable, the speed of the outbreak growth must be rapid, and the spread must be beyond a single country.

- In 2018 the WHO's Department of Health System Governance and Financing established a new knowledge program on financing "common goods for health"
- WHO is a knowledge-based organization, hosting research programs, coordinating research, and sharing its findings and data worldwide; it is widely considered to have global authority on health norms, standards, and regulations and it plays a key role in global health coordination, convening, and accountability
- Its constitution grants it normative powers related to international health challenges through the use of a variety of instruments
- WHO has positioned itself as a champion for innovation by shaping, scaling, and amplifying innovative efforts; it focuses on building the capacity of health research systems, setting research priorities and standards, and translating research into policy-relevant actions.
- WHO plays a central role in overseeing emergency preparedness and coordinating emergency responses; it also participates in or leads on several global and regional efforts to prevent cross-border disease movement and eliminate malaria and polio
- It has played an important role in curbing the cross-border spread of tobacco and in tackling AMR; publishing the Global Action Plan on AMR in 2015

3.4.1 GPGs and the WHO's mandate

The WHO's 13th GPW, which covers the period 2019-2023, defines the organization's six core functions:

1. "providing leadership on matters critical to health and engaging in partnerships where joint action is needed;
2. shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge;
3. setting norms and standards and promoting and monitoring their implementation;
4. articulating ethical and evidence-based policy options;
5. providing technical support, catalysing change, and building sustainable institutional capacity;
6. and monitoring the health situation and assessing health trends."⁸

The WHO works primarily through providing technical support to its member states and serving as the coordinator of international health within the UN system.

The WHO is guided by its GPW, a five-year strategic plan that outlines the framework for its financial resources. GPGs are one of the three pillars of the 13th GPW. The vision and mission sections of the GPW clearly state that in an interconnected world, "**WHO's role in providing GPGs that ensure health for all people within and across national boundaries has never been more relevant.**"⁸ GPGs for health are identified in the GPW as both the type of work it does (i.e., the provision of GPGs themselves) and how it does its work (i.e., driving the creation of GPGs).

The 13th GPW lays out three strategic priorities—"the triple billion goal"—to ensure healthy lives and promote well-being for all (Box 5). To achieve these priorities, the WHO will focus on three strategic shifts. One of the strategic shifts is "**focusing GPGs on impact.**"⁸ This strategic shift is based on three of the WHO's core functions: 1) setting norms and standards and promoting and monitoring their implementation, 2) monitoring the health situation and assessing health trends, and 3) shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge.⁸ According to the GPW, these activities "drive the creation of global public goods."⁸

In 2018 the WHO’s Department of Health System Governance and Financing established a new knowledge program on financing common goods for health,¹⁷ and formed a Technical Advisory Group (TAG) to engage global experts in building this knowledge platform. The first meeting of the TAG was held in April 2018. In this new knowledge program, the term “common goods for health” refers to both traditional GPGs for health as well as addressing market failures and tackling health problems with major externalities (e.g. pandemic preparedness).^f Table 2 shows how the term “common goods for health” relates to the “global functions” in our Table 1.

Table 2. How the term “common goods for health” relates to the term “global functions”

Terminology	
Common goods for health	Global functions
Public goods	Provision of global public goods
	Fostering of global health leadership and stewardship
Market failures and large externalities	Management of negative regional and global cross-border externalities

3.4.2 Evidence on WHO’s GPGs for health engagement

A previous analysis suggested that in 2013, around **62% of WHO’s annual finances supported global functions.**³

Supporting GPGs for health

Knowledge generation and sharing. WHO is a knowledge-based organization: it hosts research programs, coordinates research, and shares its findings and data world-wide. WHO’s open access policy ensures its outputs are published to benefit all via its library and information networks for knowledge.⁷³ Data are a priority at WHO headquarters and play a key role in building country capacity for accurate data monitoring and reporting. The WHO’s collation, classification, and vetting of the data help to ensure sufficient quality for broader sharing.⁸

Setting norms and standards and establishing global technical guidance. WHO is widely considered to have global authority on health norms, standards, and regulations. Its constitution grants it normative powers related to international health challenges through the use of a variety of instruments (e.g., agreements, conventions, regulations, and recommendations).⁸⁸ To date, the WHO has opted to use more of its softer instruments (i.e., recommendations) based on scientific evidence, but it has also used its harder normative instruments on occasion, e.g., the Framework Convention on Tobacco Control (Box 6) and the International Health Regulations.⁷⁴ Some key informants highlighted that many of the WHO’s normative functions are “invisible,” such as naming nonproprietary generic drugs and identifying biological specifications for drug efficacy.

R&D and market shaping. WHO has positioned itself as a champion for innovation by shaping, scaling, and amplifying innovative efforts.⁸ It focuses on building the capacity of health research systems, setting research priorities and standards, and translating research into policy-relevant actions.⁷⁵

Although the Special Programme for Research and Training in Tropical Diseases (TDR) once engaged in product R&D, it has since shifted its strategic focus. TDR now plays a key function in R&D priority setting and financing product implementation research, given the recent emergence of product development

^f This group will publish a series in September 2019 in the journal *Health Systems and Reform* that makes the case for investing in common goods for health.

partnerships.⁷⁶ TDR recently published a new target product profile directory, a “searchable database of profiles for health products needed to tackle pressing health issues in global health including those prioritized by WHO.”⁷⁷

Box 5. The triple billion goal ⁸

The 2019-2023 GPW outlined the “triple billion” goal. The three goals are: achieving universal health coverage (UHC) (one billion more people benefitting from UHC), addressing health emergencies (one billion more people better protected from health emergencies), and promoting healthier populations (one billion more people enjoying better health and well-being).

Managing regional and global cross-border externalities

Outbreak preparedness and response. WHO plays a central role in overseeing emergency preparedness and coordinating emergency responses. Through the International Health Regulations, the WHO has the sole authority to declare a public health emergency of international concern, a determination that triggers the necessary coordination activities for an international response.⁷⁸

After major criticism of its slow response to the 2014 West Africa Ebola outbreak, in 2016 the WHO established a new Health Emergencies Programme to coordinate the international health response to disasters, disease outbreaks, and conflicts.⁷⁹ This new program coordinates outbreak response using resources from the Global Outbreak Alert and Response Network (GOARN), “a collaboration of existing institutions and networks constantly alert and ready to respond.”⁸⁰ WHO provides the secretariat services for GOARN and aims to ensure that emergencies have “rapid access to the most appropriate experts and resources for outbreak response.”⁸¹ Another post-Ebola development is the WHO’s Contingency Fund for Emergencies. Although currently short of requested funds, this fund intends to play a key role in rapidly disbursing assistance for emergencies within 24 hours of a request.⁸²

Most recently, in collaboration with the World Bank, WHO launched a new mechanism—the Global Preparedness Monitoring Board—to monitor emergency preparedness on a global scale to strengthen global health security.⁸³

Control of the cross-border movement of diseases. WHO participates in or leads on several global and regional efforts to prevent cross-border disease movement and eliminate certain diseases such as malaria and polio. For example, WHO is the lead technical agency for the Mekong Malaria Elimination Programme, a unified effort among countries of the Greater Mekong Sub-region.⁸⁴ To support this work in the region, WHO launched a data sharing platform to allow for alignment and harmonization of surveillance efforts and response strategies.⁸⁴ Once malaria has been eliminated, WHO provides certification of a country’s malaria-free status. WHO also houses the GPEI, a public-private partnership to eradicate polio.

Curbing the marketing of harmful products. WHO has used its normative power to respond to the marketing of tobacco through the Framework Convention on Tobacco Control (Box 6) and of breast-milk substitutes through the International Code of Marketing of Breast-milk Substitutes.

Control of AMR. WHO published the Global Action Plan on Antimicrobial Resistance in 2015,⁸⁵ which helps coordinate the global response to AMR. It also supports surveillance and research to grow the evidence base on AMR and coordinates laboratory networks via the Global Antimicrobial Resistance Surveillance System to respond to drug resistance.

Fostering leadership and stewardship

Convening for consensus building, health advocacy, aid effectiveness. “Providing leadership on matters critical to health and engaging in partnerships where joint action is needed” is one of WHO’s core functions.⁸ WHO coordinates task forces and high-level commissions; hosts secretariats that drive aid accountability work (e.g., the Partnership for Maternal, Newborn and Child Health’s secretariat); and harmonizes efforts across global health actors, such as through the Global Action Plan.

Box 6. Framework Convention on Tobacco Control⁸⁶

The Framework Convention on Tobacco Control is the first global health treaty. The impetus for the treaty was the globalization of the tobacco epidemic. The World Health Assembly adopted the convention in 2003 and it entered into force in 2005. The framework convention focuses on reducing the production and use of tobacco: it requires parties to enforce restrictions on advertising and enact tobacco taxation and pricing policies.⁸⁷

Article 2 of the WHO constitution grants WHO with normative powers to adopt “conventions, agreements and regulations, and make recommendations with respect to international health matters.”⁸⁸ Despite this normative power, the Framework Convention on Tobacco Control is the first and only treaty negotiated under the auspices of the WHO.

3.4.3 Additional activities that support global functions

Key informants at the WHO described other activities that could potentially meet the definition of global functions but that remain in their infancy (thus the impact is still unclear):

- **Generating norms and standards:** In the 2019 reorganization of the WHO, a newly launched Science Division aims to amplify WHO’s normative and standard-setting functions.⁸⁹ Led by Soumya Swaminathan, WHO’s new Chief Scientist, the division will play four key roles: (i) quality assurance of WHO’s norms and standards, (ii) development of a global public health research agenda, (iii) supporting and boosting health research in LICs and MICs, and (iv) encouraging public participation in health research. In the 13th GPW, the WHO aims to strengthen the production of three categories of GPGs for health: (i) constitutional normative products (regulations and conventions, approved by the World Health Assembly or an equivalent body, such as the Codex Alimentarius Commission); (ii) scientific and technical normative products (e.g., treatment guidelines), and (iii) health trend assessments (e.g., on the global burden of disease or supporting national health accounts).

4 ACTIONS TO INCREASE GPGs FOR HEALTH SUPPORT UNDER THE NEW GLOBAL ACTION PLAN

In Section 3, we presented each organization’s approach to supporting GPGs for health. In this final section, we take a cross-organizational perspective to lay out a series of key cross-cutting findings linked with actions that could enhance collective support for such GPGs, including through improved efficiency and overarching governance. We believe that these actions would provide incremental opportunities for delivering on the collective call to strengthen GPGs for health in the Global Action Plan.

Cross-cutting finding #1

All four multilateral organizations support GPGs for health in different ways, but there is variation in how clear or explicit each organization is about its support. Each of the multilateral organizations have had internal conversations about their support for GPGs and how their engagement may evolve to enhance this support. However, these efforts were not driven solely by a desire to support a broader GPGs agenda, but sometimes were considered a means to achieve organizational goals. The definition and use of the term GPGs for health is inconsistent both across and within each multilateral organization. Our analysis found that no organization has articulated a clear organization-wide definition of GPGs.

“GPGs is a huge part of the development agenda across sectors—you can’t solve many problems at just the national level anymore.” –Key informant

The framing of GPGs varied across the organizations. For example, the World Bank and WHO have explicitly incorporated language on GPGs into their strategies. Both organizations have each created platforms for GPGs: the World Bank established a \$100 million fund for GPGs and the WHO is launching a work program on “common goods for health.” In contrast, Gavi and the Global Fund, although contributing to GPGs, have not yet framed their work using any type of explicit language on GPGs. Some key informants at the Global Fund and Gavi referred to aspects of their work as GPGs; for example, one key informant from the Global Fund described the strategic initiatives team as “the ones who oversee grants for public goods”. Other key informants from the Global Fund and Gavi stated that GPGs are “embedded” within their portfolio and are “essential” to their work.

Action 1: Based on this key finding, we suggest that each of the multilateral organizations studied adopt an explicit organizational point of view on their support for GPGs for health. The Global Action Plan calls for cross-organizational alignment to increase resources for and provision of GPGs for health. Our analysis indicates that within signatory organizations of the Global Plan, there are inconsistencies on how they view their support. Without a clear organizational understanding of each organization’s efforts, cross-organizational alignment and tracking will be difficult.

Cross-cutting finding #2

Despite agreement that the SDGs and broader health goals cannot be achieved without supporting GPGs, and the Global Action Plan’s call for such support, the lack of consensus around a definition of GPGs for health is a barrier. Although the GPGs for health agenda is not new, there is, according to one key informant,

a “new momentum and legitimacy to this topic [GPGs] by tying it to the SDG agenda.” While the Global Action Plan has provided a boost to this momentum, there remains a lack of clarity on what it means for the multilateral organizations to collectively work on GPGs. As one key informant from the World Bank mentioned, “without a GPGs rubric to operate from it’s unlikely that [GPGs financing] will become a major trend.” Similar sentiments were expressed at the WHO, where an informant emphasized the need for a common approach to make an impact. At the Global Fund, a key informant said that collaboration currently happens at primarily the country level and that a collective change would be needed to accelerate collaborative efforts for tackling global-level challenges. There was no clear alignment across or within the four organizations about the ideal balance between funding country-specific versus global functions. Getting the balance right was of keen interest among the organizations given the heightened concerns related to transitions away from country-specific DAH.

“We need a better definition; how can we measure things without a better definition?” –Key informant

Our interviews showed that there is a clear divide on whether to use the GPGs framing in a looser way versus staying true to its economic definition. Some fear that if the phrase becomes too broad it will encompass everything: “boundaries around public goods is a problem.” Some key informants pushed for adhering to the narrow economic definition and reframing of the concept, such as using the term “common goods for health,” as a way to work around these semantic debates. In September 2019, the journal *Health Systems and Reform* will publish a special issue dedicated to the financing of national and global common goods for health (a term that encompasses not just public goods, but also addresses market failures and health challenges with major externalities⁹⁰). This special issue, and the WHO’s broader work program on common goods for health, may help to build interest in and alignment around this new terminology.

While some felt this definitional debate detracts from achieving the work, others argued that nothing could be properly measured without a clear definition. We recently highlighted this definitional challenge and argued; “only an energetic and high profile consensus-building exercise will lead to a widely adopted definition of GPGs for health.”¹³ For organizations concerned about replenishment funds, definitional clarity and the ability to measure the impact of their contributions to these types of collective action problems are important. One key informant wanted to know how an organization could demonstrate to its stakeholders its impact on collective action issues. Tracking funding for something without a clear boundary or definition seems unlikely to garner sufficient support.

Some key informants said that even if the definitional debate continues, there could still be a list of collective action priorities that could be agreed on to continue moving this agenda forward. As one key informant put it, “as you go up the priority list of issues to fund, people will agree.” One key informant from the Global Fund suggested that the top priority should be funding for pandemic preparedness.

Action 2: Despite the inclusion of GPGs for health in the Global Action Plan, no definition was provided. Given the varied use of framing across the organizations, we recommend that multilateral organizations align on a common definition of GPGs for health, or another term that encompasses key collective action challenges of joint concern. The Global Action Plan calls for collaborating to fund and provide essential GPGs for health. However, without agreement on the scope of this call, it will be very difficult to measure or track collaboration to achieve alignment. Multilateral organizations should define what they mean to ensure they hold themselves accountable to deliver on their pledge.

If settling the definitional debate is not feasible in the short-term, identifying specific priority goods may be a useful exercise until organizations come to an agreement on the boundaries of this agenda. The Global Action Plan refers to pandemic preparedness and response as a “critical public good,” which may be a useful place to start. The aforementioned upcoming special issue on financing common goods for health in the journal *Health Systems and Reform*, to be launched at the 2019 UN General Assembly, also lays out a set of priority actions.

Cross-cutting finding #3

Existing organizational mandates and structures may not be conducive to supporting GPGs for health.

When discussing the ways that GPGs could be supported in the future, key informants often pointed to the ways that their organizational mandates or existing structures may inhibit their increased engagement in this space. One key informant said, “extending beyond [your] mandate can be a source of risk.” Another key informant shared that boards may not have the same appetite as its employees in terms of risk. One key informant said it is critical for an organization to define clearly its role and added value; it must understand how a wider role in supporting GPGs fits within the organizational mandate.

“Gaining political support for countries to spend grants on GPGs is hard; a suffering mother generates much more political support than a distant threat.” –Key informant

Even when mandates are not the barrier, the structure and practices of the organizations may not be conducive to reaching its full potential to support the GPGs for health agenda. One key informant from the World Bank commented that even though the bank has advantages to offer support in certain sectors within countries, it does not necessarily succeed in translating this work to the global level. In response to previous calls for restructuring the World Bank to better serve GPGs, one key informant suggested that no restructuring overhauls are likely in the near future and that the bank needs to “work with what we have” to deliver progress. The informant further explained that the World Bank is only just now beginning to question what it means to have a GPGs window. As another key informant from the World Bank said, “everything happens in a place, so our country model won’t change.” However, there is an appetite at the bank for some kind of restructuring towards a more GPGs-oriented model in the longer-term future: “We’re not there yet and we don’t think we’ll be there any time soon. We think we should be moving towards that direction.” Another informant said that: “...we [the World Bank] do have the global platforms now and we need to build and leverage them.”

Key informants from the Global Fund also shared that their organizational structures may limit contributions to the GPGs for health agenda. For example, one key informant highlighted the cumbersome and time-consuming role of board approvals for its strategic initiatives, many of which focus on collective action challenges. Several key informants also shared that there is little evaluation built into the strategic initiatives. Paired with limited allocation guidelines or criteria, there seems to be no clear mechanism for evaluating or improving the GPGs-oriented efforts that are already ongoing at the Global Fund.

If mandates allowed, existing mechanisms could be transformed for the purposes of supporting GPGs. For example, an informant from the Global Fund suggested that its AIDS, TB, and malaria reference laboratories could be transformed into outbreak laboratories for minimal costs.

Even though the World Bank has existing channels through which GPG funding could be accessed, a key informant expressed that countries do not necessarily have an appetite to use funding in this way. A key informant from the Global Fund shared similar concerns; one key informant said that “grants aren’t the problem” and that “if a country has value for GPG, he [the country] will allocate the money.” Establishing strategic initiatives may have been a way to balance the trade-off between country-specific and GPGs-specific efforts. However, another Global Fund key informant flagged that if replenishments are disappointing, and there is competition for resources, financing for strategic initiatives might be the first to disappear.

Action 3: Based on this finding we recommend that organizations assess their existing GPGs windows and mechanisms to evaluate and jointly share their assessments of progress and challenges. This information will be useful to other organizations contemplating increased or enhanced engagement in GPGs for health and provide evidence to organizations whose boards may be risk-averse due to lack of evaluation of collective action efforts.

For situations where a board may be risk-averse but the staff are eager to engage, we suggest identifying what information the board would require to engage further on GPGs, and to identify where there are flexibilities in the organization’s structure to expand, or pivot to, support for GPGs within the context of existing programs.

Cross-cutting finding #4

Multilateral organizations are supportive of increased attention on GPGs for health, but views diverge around who should finance GPGs for health and where funds for GPGs for health should come from. One major area of disagreement and debate among key informants was whether or not there should be a dedicated financing mechanism solely to fund GPGs for health. For example, one key informant advocated for using existing infrastructure to raise such funds, claiming that “there’s already pluralism in [the] global health architecture.”

Some key informants flagged alternative ways to mobilize resources for GPGs. One key informant suggested that donors could have a lending rule where a certain percentage of each health grant must contribute towards GPGs for health. Similarly, another key informant suggested that organizations should pay a “GPGs tax” since the market will never provide sufficient funds. Specifically, the informant said, “I think we should set aside 5% of our funding for GPGs.” Another informant agreed that a small percentage of funds could be allocated to GPGs but this percentage could be through private finance to create a capital base for GPGs for health for international organizations to use.

Action 4: After organizations agree on a common definition (or priority list) of GPGs for health and evaluate existing mechanisms focused on GPGs, we recommend that organizations identify long-term funding options for GPGs to achieve the goal of aligning the support for and provision of GPGs in the Global Action Plan. At present, support for GPGs for health is ad-hoc.

The recent launch of new earmarked funding mechanisms for GPGs for health, such as CEPI, and of new funding aggregators or platforms, such as the G20 Antimicrobial Research and Development Hub,⁹¹ show that there has been innovation in funding GPGs for health. Nevertheless, as Yamey and colleagues have argued, as a general principle “public goods require compulsory collective financing.”⁹⁰ Ultimately, a global stream of compulsory financing for GPGs for health will be needed, likely through some form of global taxation (e.g., on fossil fuels or financial transactions).

Cross-cutting finding #5

As with global health cooperation more broadly, financing for GPGs for health is fragmented and poorly coordinated, with no clear overarching governance. In addition to the problems laid out above—from a lack of a common definition of GPGs for health to a variation in how explicit organizations are in their GPGs strategy—there is also no “supra-organizational” structure to provide overarching direction and prioritization. A platform that has high legitimacy and is trusted by stakeholders, develops broad based ownership, and pairs national and global efforts can help foster global health coordination.⁹² The Global Action Plan could be the impetus for improved coordination, potentially driving new approaches such as joint funding mechanisms, closer alignment with regional bodies (e.g., the African Union), and shared learning agendas. Given the WHO’s mandate for global health coordination, and the centrality of GPGs in its 13th GPW, there is a clear role for the organization in leading the GPGs for health agenda. One unfortunate consequence of the way that the WHO is funded—primarily through voluntary, earmarked funds (which now make up around three quarters of all WHO funding⁹³)—is that it does not have the flexibility needed to increase its own support for GPGs for health.

Action 5: Given the WHO’s mandate, it is arguably the best placed of the multilateral organizations for providing overarching governance for GPGs for health—but to do so it will need a secure, sustained funding stream to support this role. The CIH argued that the under-funding of the WHO’s core functions is undermining WHO’s “capacity to supply global public goods and other global functions, including the management of negative externalities.” The compulsory financing mechanism proposed in Action 4 should be used to fund the WHO’s core activities.

● APPENDIX 1. LIST OF KEY INFORMANTS

Gavi

Johannes Ahrendts, Head of Strategy
Albane de Gabrielli, Senior Strategy Manager
Sophie Mathewson, Research Specialist, Policy and Performance (on secondment)
Minzi Lam Meier, Head, Financial Planning and Analysis
Wilson Mok, Acting Head, Policy
Aurelia Nguyen, Managing Director, Policy and Market Shaping
Anna Osborne, Senior Manager, Strategy Development and Tenders
Paolo Sison, Director, Innovative Finance

The Global Fund

Manjiri Bhawalkar, Strategy, Impact and Investment
Michael Borowitz, Head of the Strategic Investments and Partnerships
Carol D'Souza, Allocation Manager
John Fairhurst, Head, Private Sector Engagement
Johannes Hunger, Head, Strategic Information
Mariatou Tala Jallow, Head, Direct Procurement
George Korah, Senior Specialist, Development Finance
Sophie Logez, Manager, Health Product Management Hub
Peter Sands, Chair, World Bank's International Working Group on Financing Pandemic Preparedness (at time of interview; now Executive Director, Global Fund)

World Bank

Olusoji Adeyi, Director, Health, Nutrition and Population Global Practice
Ivar J. Andersen, Advisor
Daniel Balke, Strategy and Operations Officer, Global Concessional Financing Facility
Kimberli Boer, Senior Health Specialist, Global Financing Facility
Margot Brown, Director, Global Themes Knowledge Management
Tim Evans, Senior Director, Health, Nutrition and Population Global Practice
Lisa Finneran, Senior Advisor, Development Finance
Keith Hansen, former Vice President for Human Development (on sabbatical)
Olivier Lavinal, Program Manager, Global Concessional Financing Facility, Global Fragility and Conflict
Axel van Trostenburg, Vice President, Development Finance
Monique Vledder, Practice Manager, Global Financing Facility

World Health Organization

Bruce Aylward, Senior Advisor to the Director-General
Mariângela Simão, Assistant Director-General, Drug Access, Vaccines and Pharmaceuticals
Peter Singer, Senior Advisor to the Director-General
Bernhard Schwarfländer, Chef de Cabinet
Agnés Soucat, Director, Health Systems, Governance and Financing
Robert Terry, Manager, Research Policy, TDR, the Special Programme for Research and Training in Tropical Diseases
Ke Xu, Senior Health Financing and Expenditure Analyst

Other Organizations

Cindy Huang, Co-director, Migration, Displacement, and Humanitarian Policy, Center for Global Development
Suerie Moon, Director, Research, Global Health Center, Graduate Institute of International Development Studies
Scott Morris, Director, US Development Policy Initiative, Center for Global Development
Sebastian Wienges, Team Leader, GIZ
Madita Weise, Advisor, GIZ
Claire Wingfield, Senior Product Development Policy Officer, PATH (at time of interview; now Associate Director, Global Health Advocacy Incubator)
Simon Young, President, GeoSY Ltd

Note: Listing reflects key informant titles at time of interview

● REFERENCES

- ¹ WHO. Global Action Plan for Healthy Lives and Well-being. 2018. Available from: https://www.who.int/sdg/global-action-plan/Global_Action_Plan_Phase_I.pdf
- ² World Bank Group. What are Global Public Goods? Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/EXTOED/EXTANNREVDEVEFFE/EXT2008ANNREVDEVEFFE/0,,contentMDK:21903365~menuPK:5397143~pagePK:64829573~piPK:64829550~theSitePK:4683541,00.html>
- ³ Schäferhoff M, Fewer S, Kraus J, Richter E, Summers LH, Sundewall J, Yamey G, Jamison DT. How much donor financing for health is channelled to global versus country-specific aid functions?. *The Lancet*. 2015 Dec 12;386(10011):2436-41.
- ⁴ Summers, L. We play with fire if we skimp on public health. *Financial Times*. 2014. Available from: <https://www.ft.com/content/2591b4e8-6529-11e4-ab2d-00144feabd0>
- ⁵ Yamey G, Kennedy K, Kraus J, Petitjean H, Schrade C, Fewer S, Beyeler N, Schwalbe N. Intensified multilateral cooperation on global public goods for health: three opportunities for collective action. 2018. Available from: https://sites.globalhealth.duke.edu/centerforpolicyimpact/wp-content/uploads/sites/18/2018/11/Multilaterals-and-GPGs_LONG_Final.pdf
- ⁶ Kim, JY. Speech by World Bank Group President Jim Yong Kim at the Annual Meetings Plenary. 2016. Available from: <http://www.worldbank.org/en/news/speech/2016/10/07/plenary-speech-by-world-bank-group-president-jim-yong-kim-2016>
- ⁷ Birdsall N. On Global Public Goods: It's Not Big Money but It's a Big Breakthrough. Center For Global Development. 2018. Available from: <https://www.cgdev.org/blog/global-public-goods-not-big-money-but-breakthrough>
- ⁸ WHO. Thirteenth General Programme of Work 2019–2023. WHO. 2018. Available from: <http://www.who.int/about/what-we-do/gpw-thirteen-consultation/en/>
- ⁹ The Global Fund. Catalytic Investments. Global Fund. 2018. Available from: <https://www.theglobalfund.org/en/funding-model/funding-process-steps/catalytic-investments/>
- ¹⁰ Gavi. CEO's report. 2018. Available from: <https://www.gavi.org/about/governance/gavi-board/minutes/2018/6-june/minutes/03b---ceo-s-report/>
- ¹¹ WHO. Global Action Plan. 2018. Available from: <https://www.who.int/sdg/global-action-plan>
- ¹² Ahluwalia MS, Summers L, Velasco A, Birdsall CN, Morris S. Multilateral development banking for this century's development challenges. Five.
- ¹³ Yamey G, Ogbuaji O, McDade KK. We need a consensus on the definition of 'global public goods for health'. 2018. Available from: <https://www.brookings.edu/blog/future-development/2018/11/20/we-need-a-consensus-on-the-definition-of-global-public-goods-for-health/>
- ¹⁴ Birdsall N, Morris S. Multilateral Development Banking for this Century's Development Challenges: Five Recommendations to Shareholders of the Old and New Multilateral Development Banks. 2016. Available from: <https://www.cgdev.org/publication/multilateral-development-banking-for-this-century-s-development-challenges>
- ¹⁵ Jamison DT, Summers LH, Alleyne G, Arrow KJ, Berkley S, Binagwaho A, Bustreo F, Evans D, Feachem RG, Frenk J, Ghosh G. Global health 2035: a world converging within a generation. *Salud publica de Mexico*. 2015 Sep 15;57(5):444-67.
- ¹⁶ Moon S, Røttingen JA, Frenk J. Global public goods for health: weaknesses and opportunities in the global health system. *Health Economics, Policy and Law*. 2017 Apr;12(2):195-205.
- ¹⁷ WHO. Financing common goods for health. 2019. Available from: https://www.who.int/health_financing/topics/financing-common-goods-for-health/en/
- ¹⁸ Gavi. Supply and Procurement Strategy 2016-20. Available from: <https://www.gavi.org/library/gavi-documents/supply-procurement/supply-and-procurement-strategy-2016-20/>
- ¹⁹ Gavi. Vaccine Investment Strategy. 2019 Available from: <https://www.gavi.org/about/strategy/vaccine-investment-strategy/>
- ²⁰ Gavi. The Market Shaping Goal. 2019. Available from: <https://www.gavi.org/about/strategy/phase-iv-2016-20/market-shaping-goal/>
- ²¹ Watkins DA, Yamey G, Schäferhoff M, Adeyi O, Alleyne G, Alwan A, Berkley S, Feachem R, Frenk J, Ghosh G, Goldie SJ. Alma-Ata at 40 years: reflections from the Lancet Commission on Investing in Health. *The Lancet*. 2018 Oct 20;392(10156):1434-60.
- ²² LCNT. Current vaccine pricing for GAVI transitioning countries. 2018. Available from: <https://lnct.global/resources/current-vaccine-pricing-gavi-transitioning-countries/>
- ²³ Keller JM, Glassman A. Gavi's Role in Market Shaping and Procurement: Progress, Challenges, and Recommendations for an Evolving Approach. 2019. Available from: <https://www.cgdev.org/publication/gavis-role-market-shaping-and-procurement-progress-challenges-and-recommendations#ftn9>
- ²⁴ Gavi. 2017 Progress Report. 2018. Available from: <https://www.gavi.org/library/publications/gavi-progress-reports/gavi-progress-report-2017/>
- ²⁵ Gavi. Gavi's support for emergency vaccine stockpiles. 2016. Available from: <https://www.gavi.org/about/governance/gavi-board/minutes/2016/7-dec/minutes/13---gavi-s-support-for-emergency-vaccine-stockpiles/>
- ²⁶ Gavi. Inactivated Polio Vaccine Support. 2019. Available from: <https://www.gavi.org/support/nvs/inactivated-polio-vaccine/>
- ²⁷ Gavi. Ebola vaccine purchasing commitment from Gavi to prepare for future outbreaks. 2016. Available from: <https://www.gavi.org/library/news/press-releases/2016/ebola-vaccine-purchasing-commitment-from-gavi-to-prepare-for-future-outbreaks/>
- ²⁸ Gavi. Ebola vaccine to help tackle DRC outbreak. 2018. Available from: <https://www.gavi.org/library/news/statements/2018/ebola-vaccine-to-help-tackle-drc-outbreak/>
- ²⁹ Gavi. Global health and development – guiding principles. 2019. Available from: <https://www.gavi.org/about/ghd/>
- ³⁰ Knack S, Rogers FH, Eubank N. Aid Quality and Donor Rankings. Policy Research Working Paper 5290. The World Bank Development Research Group. 2010. Available from: <http://documents.worldbank.org/curated/en/867271468184135641/pdf/WPS5290.pdf>
- ³¹ Gavi. Gavi Alliance Evaluation Policy Version 4.0. Available from: <https://www.gavi.org/library/gavi-documents/corporate-policies/gavi-evaluation-policy/>

- ³² Gavi. Evaluation Advisory Committee. 2019. Available from: <https://www.gavi.org/about/governance/gavi-board/committees/evaluation-advisory-committee/>
- ³³ Gavi. Data. Gavi, 2018. Available from: <https://www.gavi.org/support/hss/data/>
- ³⁴ Gavi. Vaccine Investment Strategy. 2018. Available from: <https://www.gavi.org/about/governance/gavi-board/minutes/2018/6-june/minutes/07--vaccine-investment-strategy--short-list/>
- ³⁵ The Global Fund. Detailed Explanation of the Allocation Methodology 2017-2019. 2017. Available from: https://www.theglobalfund.org/media/5642/fundingmodel_allocations2017-2019detailedexplanation_report_en.pdf?u=636852022100000000
- ³⁶ The Global Fund. Focus On: Global Health Security. 2019. Available from: https://www.theglobalfund.org/media/7318/publication_globalhealthsecurity_focuson_en.pdf
- ³⁷ The Global Fund. Focus On: Building Resilient and Sustainable Systems for Health. 2019. Available from: https://www.theglobalfund.org/media/1309/publication_rssh_focuson_en.pdf
- ³⁸ The Global Fund. Sourcing & Management of Health Products. 2019. Available from: <https://www.theglobalfund.org/en/sourcing-management/health-products/>
- ³⁹ UCSF and RBM. The Critical Role of the Global Fund's Catalytic Funding in Ending Malaria. Available from: <https://endmalaria.org/sites/default/files/Catalytic%20Funding%20Brief-FINAL.pdf>
- ⁴⁰ The Global Fund. Market Shaping Strategy. Available from: https://www.theglobalfund.org/media/4200/bm34_17-annex1marketshapingstrategy_paper_en.pdf
- ⁴¹ The Global Fund. Global Fund Strategy. Available from: https://www.theglobalfund.org/media/2531/core_globalfundstrategy2017-2022_strategy_en.pdf
- ⁴² The Global Fund. Sourcing & Procurement of Health Products. 2019. Available from: <https://www.theglobalfund.org/en/sourcing-management/health-products/>
- ⁴³ The Global Fund. Warmbo.org. 2019. Available from: <https://www.theglobalfund.org/en/sourcing-management/wambo/>
- ⁴⁴ The Global Fund. GF/B23/9: Report of the Market Dynamics and Commodities Ad-Hoc Committee. 2011. Available from: https://www.theglobalfund.org/media/3946/bm23_09mdc_report_en.pdf?u=637001819350000000
- ⁴⁵ Arrow KJ, Danzon PM, Gelband H, Jamison D, Laxminarayan R, Mills A, Mwabu G, Panosian C, Peto R, White NJ. The Affordable Medicines Facility--malaria: killing it slowly. *Lancet* (London, England). 2012 Dec 5;380(9857).
- ⁴⁶ The Global Fund. Sourcing & Management of Health Products. 2019 Available from: <https://www.theglobalfund.org/en/sourcing-management/quality-assurance/medicines/>
- ⁴⁷ Yamey G, Schäferhoff M, Montagu D. Piloting the Affordable Medicines Facility-malaria: what will success look like?. *Bulletin of the World Health Organization*. 2012;90:452-60.
- ⁴⁸ Tougher S, Hanson K, Goodman C. What happened to anti-malarial markets after the Affordable Medicines Facility-malaria pilot? Trends in ACT availability, price and market share from five African countries under continuation of the private sector co-payment mechanism. *Malaria Journal*. 2017 Dec;16(1):173.
- ⁴⁹ The Global Fund. AMFM. Available from: https://www.theglobalfund.org/media/5724/core_amfm_infonote_en.pdf?u=636852021040000000
- ⁵⁰ The Global Fund. Why RAI? Investing to Eliminate Malaria in the Mekong. 2017. Available from: <https://www.theglobalfund.org/en/blog/2017-09-26-why-rai-investing-to-eliminate-malaria-in-the-mekong/>
- ⁵¹ The Global Fund. Making the World Safe from the Threats of Emerging Infectious Diseases. 2018. Available from: <https://www.theglobalfund.org/en/blog/2018-02-02-making-the-world-safe-from-the-threats-of-emerging-infectious-diseases/>
- ⁵² World Bank. Forward Look: A Vision for the World Bank Group in 2030. 2016. Available from: <http://pubdocs.worldbank.org/en/420891485984810099/DC2016-0009.pdf>
- ⁵³ World Bank. Annual Report 2018. Available from: <https://openknowledge.worldbank.org/bitstream/handle/10986/30326/9781464812965.pdf>
- ⁵⁴ World Bank Group. Sustainable Financing for Sustainable Development: World Bank Group Capital Package Proposal. 2018. Available from: http://siteresources.worldbank.org/DEVCOMMIT/Documentation/23776700/DC2018-0002_PSustainableFinancing421.pdf
- ⁵⁵ World Bank Group. What We Do. 2019. Available from: <http://www.worldbank.org/en/about/what-we-do>
- ⁵⁶ World Bank Group. About the World Bank Open Knowledge Repository. 2019. Available from: <https://openknowledge.worldbank.org/about>
- ⁵⁷ World Bank Group. AFCC2/RI-African Medicines Regulatory Harmonization Project. 2019. Available from: <http://projects.worldbank.org/P128332/african-medicine-regulatory-harmonization-project?lang=en&tab=details>
- ⁵⁸ World Bank Group. Pharmaceutical Policy. 2013. Available from: <http://www.worldbank.org/en/topic/health/brief/pharmaceutical-policy>
- ⁵⁹ World Bank Group. Global Crisis Risk Platform. 2018. Available from: <http://documents.worldbank.org/curated/en/762621532535411008/pdf/128852-BR-SecM2018-0217-PUBLIC-new.pdf>
- ⁶⁰ World Bank Group. Pandemic Emergency Financing Facility. 2019. Available from: <http://www.worldbank.org/en/topic/pandemics/brief/pandemic-emergency-financing-facility>
- ⁶¹ Financial Times. World Bank's 'pandemic bonds' under scrutiny after failing to pay out on Ebola. 2019. Available from: <https://www.ft.com/content/c3a805de-3058-11e9-ba00-0251022932c8>
- ⁶² WHO. Global Preparedness Monitoring Board convenes for the first time in Geneva. 2018. Available from: <https://www.who.int/news-room/detail/10-09-2018-global-preparedness-monitoring-board-convenes-for-the-first-time-in-geneva>
- ⁶³ World Bank Group. Regional Disease Surveillance Systems Enhancement (REDISSE). 2019. Available from: <http://projects.worldbank.org/P154807?lang=en>
- ⁶⁴ World Bank Group. Pandemic simulations: Preparing for the catastrophe we hope will never happen. 2016. Available from: <http://blogs.worldbank.org/health/pandemic-simulations-preparing-catastrophe-we-hope-will-never-happen>
- ⁶⁵ World Bank Group. AFCC2/RI-East Africa Public Health Laboratory Networking Project. 2019. Available from: <http://projects.worldbank.org/P111556/east-africa-public-health-laboratory-networking-project?lang=en>
- ⁶⁶ World Bank Group. Buy-Downs. Available from: <http://siteresources.worldbank.org/CFPEXT/Resources/299947-1267555827203/Buy-Downs.pdf>
- ⁶⁷ World Bank Group. Health. 2019. Available from: <http://www.worldbank.org/en/topic/health/overview>

- ⁶⁸ World Bank Group. Pandemic Preparedness and Health Systems Strengthening. 2019. Available from: <http://www.worldbank.org/en/topic/pandemics>
- ⁶⁹ Stein F, Sridhar D. Health as a “global public good”: creating a market for pandemic risk. *bmj*. 2017 Aug 31;358:j3397.
- ⁷⁰ IRIN. Congo Ebola outbreak offers first test for emergency fund to prevent pandemics. 2018. Available from: <https://www.irinnews.org/news/2018/05/28/congo-ebola-outbreak-offers-first-test-emergency-fund-prevent-pandemics>
- ⁷¹ International AIDS Vaccine Initiative. Donors. 2017. Available from: <https://www.iavi.org/what-we-do/partner/donors>
- ⁷² World Bank Group. A Stronger, Connected, Solutions World Bank Group: An Overview of the World Bank Group Strategy. Available from: https://openknowledge.worldbank.org/bitstream/handle/10986/16093/32813_ebook.pdf?sequence=5&isAllowed=y
- ⁷³ WHO. WHO open-access policy: frequently asked questions for recipients of WHO funding. 2019. Available from: <https://www.who.int/about/open-access-faq/en/index1.html>
- ⁷⁴ Gostin LO, Sridhar D, Hougendobler D. The normative authority of the World Health Organization. *Public Health*. 2015 Jul 1;129(7):854-63.
- ⁷⁵ WHO. Research. 2019. Available from: <http://www.who.int/topics/research/en/>
- ⁷⁶ TDR. Strategy 2018-2023. Available from: <http://apps.who.int/iris/bitstream/handle/10665/255777/9789241512756-eng.pdf?sequence=1>
- ⁷⁷ WHO Smart research & development to tackle global health priorities. 2019. Available from: <https://www.who.int/news-room/detail/15-05-2019-smarter-research-development-to-tackle-global-health-priorities>
- ⁷⁸ WHO Strengthening health security by implementing the International Health Regulations (2005). 2019. Available from: <https://www.who.int/ihr/procedures/pheic/en/>
- ⁷⁹ WHO. WHO in Emergencies. 2019. Available from: <http://www.who.int/emergencies/en/>
- ⁸⁰ WHO. GOARN. 2019. Available from: http://www.who.int/ihr/alert_and_response/outbreak-network/en/
- ⁸¹ WHO. GOARN pamphlet. Available from: <http://www.who.int/csr/outbreaknetwork/goarnenglish.pdf?ua=1>
- ⁸² WHO. Contingency Fund for Emergencies. 2018. Available from: <http://www.who.int/emergencies/funding/contributions/cfe-impact-report-web2018.pdf?ua=1>
- ⁸³ WHO. WHO and World Bank Group join forces to strengthen global health security. 2018. Available from: <https://www.who.int/news-room/detail/24-05-2018-who-and-world-bank-group-join-forces-to-strengthen-global-health-security>
- ⁸⁴ WHO. Countries of the Greater Mekong making inroads in the race towards elimination. 2017. Available from: <http://apps.who.int/iris/bitstream/handle/10665/259602/WHO-HTM-GMP-2017.23-eng.pdf?sequence=1>
- ⁸⁵ WHO. Global Action Plan on Antimicrobial Resistance. 2015. Available from: <http://www.emro.who.int/health-topics/drug-resistance/global-action-plan.html>
- ⁸⁶ WHO. The WHO Framework Convention on Tobacco Control: an overview. 2015. Available from: https://www.who.int/fctc/about/WHO_FCTC_summary_January2015.pdf?ua=1&ua=1
- ⁸⁷ Roemer R, Taylor A, Lariviere J. Origins of the WHO framework convention on tobacco control. *American Journal of Public Health*. 2005 Jun;95(6):936-8.
- ⁸⁸ WHO. Constitution of the World Health Organization. Available from: https://www.who.int/governance/eb/who_constitution_en.pdf
- ⁸⁹ WHO. WHO unveils sweeping reforms in drive towards “triple billion” targets. 2019. Available from: <https://www.who.int/news-room/detail/06-03-2019-who-unveils-sweeping-reforms-in-drive-towards-triple-billion-targets>
- ⁹⁰ Yamey G, Jamison DT, Hanssen O, Soucat A. Financing global common goods for health: when the world is a country. *Health Systems & Reform* 2019 (in press).
- ⁹¹ Federal Ministry of Education and Research. Global AMR R&D Hub. 2019. Available from: <https://www.gesundheitsforschung-bmbf.de/en/GlobalAMRHub.php>
- ⁹² Beyeler N, Fewer S, Yotebieng M, Yamey G. Improving resource mobilisation for global health R&D: a role for coordination platforms?. *BMJ global health*. 2019 Feb 1;4(1):e001209.
- ⁹³ WHO. GPW Overview. 2019. Available from: <https://open.who.int/2018-19/budget-and-financing/gpw-overview>