

Putting Global Health Security on the Gavi 5.0 Agenda

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INTRODUCTION

In 2014, the West Africa Ebola pandemic ignited a new era of emergent global health security concerns for the international community.¹ The global disease landscape has shifted considerably in recent years. Climate change, forced migration, greater population density in urban areas, and increased conflict have all elevated the likelihood of the spread of infectious disease. Over the past five years, major global health funders, including Gavi, the Vaccine Alliance, have grappled with strategies for preparing and responding to the world's next global pandemic. Gavi serves a wide array of functions for the countries it supports, providing financing for specific vaccines while shaping vaccine delivery, health systems, and the global vaccine market. However, Gavi's business model was not designed to combat global outbreaks, as it aims primarily to provide support that will enhance the ability of countries to develop sustainable and self-financed immunization programs; which bodes the question: how should Gavi frame its next five-year strategy to ensure vulnerable countries are prepared if/when faced with a global pandemic?

Gavi-eligible countries face a variety of challenges, from impending aid transitions to global health security threats. A projected 26 countries² will undergo full Gavi transition by 2025, with only 27 countries still eligible for Gavi financing in 2040.³ While this may be viewed as a positive change—an indication of economic development in lower-income countries—it also means Gavi-supported countries need to build strong fiscal strategies to self-finance their immunization systems and pro-

- 1 "Global Health Security Agenda," USAID, accessed 15 March 2019, <https://www.usaid.gov/ebola/global-health-security-agenda>.
- 2 Gavi estimates 26 countries based on those that already transitioned (16), are in transition (8), and that will enter in 2020 (2). Silverman (2018) projects that 31 countries will undergo full transition by 2025. Differences may be attributable to differences in projected trends in economic growth, among others.
- 3 Silverman, Rachel. "Projected Health Financing Transitions: Timeline and Magnitude." Washington, DC: Center for Global Development, 2019, 11.

This note is part of a series of notes on the future of Gavi. For more, visit <https://www.cgdev.org/publication/gavi-5-0-five-challenges-and-five-ideas-reform>

grammatic and institutional capacities. Moreover, prioritization of health spending is more difficult in countries facing conflict, refugee crises, disease outbreaks, and other emergency scenarios. Given significant global health security risks, country-level fiscal strategies should include financing for pandemic preparedness and response, including through vaccination and stockpiling where applicable, but this is a difficult task to balance with other pressing priorities.

Gavi's 5.0 strategy process presents an opportunity to assess Gavi's effectiveness in addressing these competing pressures and to align processes and priorities with the health security needs of country governments. In this note, we explore certain global health security considerations and propose procedural improvements or adaptations to Gavi's mandate to better support the needs of country governments and other partners.

THE CHALLENGE

The 2018 Ebola outbreak in the Democratic Republic of the Congo (DRC) is the second largest in its history and the first in an active conflict zone.⁴ The DRC has 45 percent full immunization coverage nationally,⁵ indicating an already-struggling health system. Gavi's primary response to the Ebola outbreak included mobilizing 300,000 investigational doses of the rVSV-ZEBOV Ebola vaccine, providing \$3.9 million in support of the country's response plan, and providing support to neighboring countries through WHO for preventative vaccination.⁶ About 87,000 people have received the vaccine, which has proved highly effective in helping control the epidemic, but the supply is expected to run out between May and mid-September 2019.⁷ Given limited vaccine availability, strategies for continuing to ramp up Ebola response in the DRC and preparedness in neighboring countries is vital.⁸

The DRC is just one example of numerous countries combatting the reality and attempting to prevent the threat of disease outbreaks, some of which require emergency response. Without health security capacities, including surveillance systems, laboratories, health workforce, strong information systems, and multi-sectoral collaboration, it is unlikely that countries will be prepared to detect and respond to a pandemic.⁹ However, financing for global health security capabilities and outbreak response adds additional financial burdens to lower-income countries, many of which are already struggling to prepare for transition from multiple sources of global health financing.¹⁰ Global health security efforts remain underfunded even though estimates show high pay-off for investing now. In 2017, the International Working Group on Financing Preparedness (IWG) estimated \$4.6 billion is

4 Maxmen, Amy. "Violence Propels Ebola Outbreak Toward 1,000 Cases." *Nature* 567, 153-154 (2019), <https://www.nature.com/articles/d41586-019-00805-7>.

5 2013-14 Ethiopia DHS.

6 "Gavi's Response to the DRC Ebola Outbreak," Gavi, The Vaccine Alliance, accessed 15 March 2019, <https://www.gavi.org/library/news/statements/2018/gavi-s-response-to-the-drc-ebola-outbreak/>. Note: Gavi has informed CGD that \$3.9 million was made available for the DRC's response plan, as well as support for neighboring countries via WHO.

7 Grady, Denise. "Ebola Epidemic in Congo Could Last Another Year, C.D.C Director Warns." *New York Times*, March 16 2019, <https://www.nytimes.com/2019/03/16/health/ebola-congo-cdc.html>

8 "Highlights on Ebola Preparedness in Democratic Republic of Congo and Surrounding Countries." Geneva, Switzerland: World Health Organization (WHO), accessed 15 March 2019, <https://extranet.who.int/sph/news/highlights-ebola-preparedness-democratic-republic-congo-and-surrounding-countries>.

9 "Implementing the Global Health Security Agenda: Progress and Impact from U.S. Government Investments," February 2018, Global Health Security Agenda, <https://www.ghsagenda.org/docs/default-source/default-document-library/global-health-security-agenda-2017-progress-and-impact-from-u-s-investments.pdf?sfvrsn=4>.

10 Nigeria, Pakistan, Cameroon, Côte d'Ivoire, Lesotho, Myanmar, and Tanzania will all transition from multiple sources of global health financing (e.g., the Global Fund, the International Development Association (IDA), the Global Polio Eradication Initiative, and PEPFAR) by 2031. Silverman, "Projected Health Financing Transitions," 26-27.

required per year to finance preparedness,¹¹ significantly less than the predicted economic loss of \$60 billion per year if a pandemic occurs.^{12,13} Considering one aspect of pandemic preparedness, a 2018 study, using WHO's National Comprehensive Multi-Year Plans (cMYPs), found spending for vaccine-preventable disease surveillance is minute but varies widely between countries, with a median expenditure of \$0.04 per capita.¹⁴ In some countries, such as Nigeria (\$0.15 per capita), spending is explained by the urgent need for surveillance of specific diseases (e.g., polio). In other cases, however, there is little analysis or explanation of expenditures (e.g. \$0.34 per capita in Zambia and \$0.01 per capita in Pakistan),¹⁵ indicating the need for further investigation of countries' expenditure decision-making around preparedness. In countries that rely on the Global Polio Eradication Initiative (GPEI) for surveillance,¹⁶ the potential phase down of GPEI support may create increased urgency for domestic funding of preparedness.

Gavi has exhibited growing recognition of preparedness as a critical issue. It currently has three active vaccine stockpiles (yellow fever, meningitis, and cholera) ready for emergency response and invests in measles outbreak response efforts and the Ebola vaccine stockpile. Moreover, Gavi developed a Fragility and Immunization Policy in 2012, which allows the organization to increase funding for countries with emergency and protracted circumstances (e.g. Yemen in 2015, Chad in 2013).¹⁷ Gavi's Board continued these efforts by approving a Fragility, Emergencies, and Refugees (FER) policy in June 2017, which allows Gavi to provide flexible financial, administrative, and programmatic support to Gavi-eligible fragile states¹⁸ and countries facing emergencies and/or hosting refugees.¹⁹ However, this policy does not extend to global health security and preparedness, which is particularly relevant for the neighbors of countries managing emergencies, fragility, and displacement.

Between 2016 - 2018, Gavi reportedly provided \$1.1 billion in disease outbreak prevention, detection, and response funding. \$790 million of this response, counted as "prevention", has gone to routine immunization campaigns; \$72 million to surveillance through health system strengthening (HSS) investments and the Partner Engagement Framework (PEF); and \$185 million in vaccine stockpiles for response in the case of an outbreak.²⁰ Gavi's disease prevention strategy highlights the need to prevent disease outbreaks in emergency settings. Specifically, the Rohingya refugee situation in Cox's Bazar, Bangladesh, is featured as a prime example of Gavi's success in preventing widespread cholera

11 "From Panic and Neglect to Investing in Health Security: Financing Pandemic Preparedness at a National Level," International Working Group on Pandemic Preparedness, The World Bank, <http://documents.worldbank.org/curated/en/979591495652724770/pdf/115271-REVISED-FINAL-IWG-Report-3-5-18.pdf>.

12 "The Neglected Dimension of Global Security: A Framework to Counter Infectious Disease Crises," 2016, The Commission on a Global Health Risk Framework for the Future, <https://nam.edu/wp-content/uploads/2016/01/Neglected-Dimension-of-Global-Security.pdf>.

13 Glassman, Amanda, Datema, Brin, and McClelland, Amanda. "Financing Outbreak Preparedness: Where Are We and What Next?," November 2018, The Center for Global Development, <https://www.cgdev.org/blog/financing-outbreak-preparedness-where-are-we-and-what-next>.

14 Hossain, Azfar, Claudio Politi, Nikhil Mandalia, and Adam L. Cohen. 2018. "Expenditures On Vaccine-Preventable Disease Surveillance: Analysis And Evaluation Of Comprehensive Multi-Year Plans (Cmyps) For Immunization." *Vaccine* 36 (45): 6850-6857, 6452. Elsevier BV. doi:10.1016/j.vaccine.2018.07.068.

15 Hossain et al. 2018. 6455.

16 "Surveillance," Global Polio Eradication Initiative (GPEI), accessed 15 March 2019, <http://polioeradication.org/who-we-are/strategy/surveillance/>.

17 "On the Frontline: Gavi's Support to Fragile States," Gavi, The Vaccine Alliance, accessed 15 March 2019, <https://www.gavi.org/library/news/gavi-features/2016/on-the-frontline--gavi-s-support-to-fragile-states/>.

18 As defined by Fund for Peace Fragile States Index, OECD States of Fragility and the World Bank's Harmonized List of Fragile Situations.

19 "Fragility, Emergencies, and Refugees Policy," Gavi, The Vaccine Alliance, accessed 15 March 2019, <https://www.gavi.org/about/programme-policies/fragility-emergencies-and-refugees-policy/>.

20 "Disease Outbreak," Gavi, the Vaccine Alliance, access 15 June 2019, <http://gotlife.gavi.org/data/outbreaks/>.

through a swift and comprehensive response.

In the coming years, Gavi may be responsible for filling a key role within the global health security landscape: introducing and supporting countries in deploying new preventative vaccines. For example, the National Institute of Allergy and Infectious Diseases is currently developing a universal influenza vaccine,²¹ which, if cost-effective, could be delivered across the world by Gavi. Controlling for negative regional externalities,²² including disease outbreaks, can also be considered a global public good (GPG). Although only one-fifth of global health funding goes towards GPGs,²³ there are high returns for investing in them, as seen with HIV vaccine development (\$67 return for every dollar invested in vaccine development).²⁴

Overall, Gavi has shown progress in supporting countries that face emergencies, but there is still much ground that should be covered regarding the organization's role in the GHS landscape. The big question remains: what should Gavi's role be in financing large-scale preparedness efforts in countries that want to improve their global health security capacities, but are not facing an immediate threat of outbreak? The following recommendations outline steps that Gavi should take to adapt to the global health security landscape, beyond its current prevention, detection, and response framework.

RECOMMENDATIONS FOR GAVI'S FUTURE APPROACH

If countries are not prepared to prevent and respond, a global pandemic could erase Gavi's years of progress toward global immunization coverage. Although financing health security capacities is an additional financial ask during 2020 replenishment, Gavi should present pandemic preparedness as a framing for many of its current activities in its investment case. Significant updates on Gavi's role in global health security should be reported to Gavi's Board on a semi-annual basis and/or when major crises occur. The following recommendations provide ways that Gavi's current activities should adapt to a GHS framing:

1. Adjust Fragility, Emergencies, and Refugees (FER) policy to include preparedness.

As a starting point, Gavi should devote more analysis and discussion of health security within its fragility and emergencies policies. Gavi's FER policy could be revised to include a percentage investment (from Gavi) in preparedness as a requirement for granting additional support to fragile states and emergency settings. For example, in countries with large refugee populations, a percentage of grant funding should be designated for disease surveillance. In the case of the Rohingya crisis in Bangladesh, Gavi was effective in preventing cholera through mass vaccination campaigns, but did not anticipate the diphtheria outbreak that has now spread to 8,640 reported cases.²⁵ Gavi's FER policy should be adjusted to ensure preparedness, including surveillance, labs, and a strong health workforce, are funded and implemented at the onset of Gavi's engagement with fragile or refugee-hosting

21 "Universal Influenza Vaccine Research," National Institute of Allergy and Infectious Diseases, accessed 15 March 2019, <https://www.niaid.nih.gov/diseases-conditions/universal-influenza-vaccine-research>.

22 "Intensified Multilateral Cooperation on Global Public Goods for Health: Three Opportunities for Collective Action." Durham, NC: Duke Global Health, 2018, 1.

23 "Global Public Goods for Health," Duke, 2018, 1.

24 Hecht, Robert, Dean T. Jamison, Jared Augenstein, Gabrielle Partridge, and Kira Thorien. "Vaccine research and development." *Rethink HIV: smarter ways to invest in ending HIV in sub-Saharan Africa* (2012): 299-320.

25 "Bangladesh: Diphtheria Outbreak – 2017-2019," Relief Web, accessed 15 June 2019, <https://reliefweb.int/disaster/ep-2017-000177-bgd>.

states.

2. Encourage country alignment with the GHSA, and fund immunization and surveillance components of costed JEE plans.

To support countries in developing robust preparedness systems, Gavi should be considered an integral part of the Global Health Security Agenda (GHSA)²⁶ architecture by the global health community. New tools, such as the Global Health Security Agenda's Joint External Evaluation's (JEE)²⁷ and the Global Health Security (GHS) Index (which uses technical assessments, health system strength, global goal commitments, socioeconomic circumstances, and more),²⁸ can be used by countries to develop costed plans and by Gavi to guide financing for preparedness in vulnerable countries. The JEE includes specific immunization targets, utilized to measure countries' prevention capacity.²⁹ Currently, 96 of 199 countries have completed JEEs, and most countries currently score below a 4 on the indicators, "indicating non-sustainable or underdeveloped capacities."³⁰ National Action Planning for Health Security (NAPHS) have been designed by countries to respond to gaps identified in JEEs, but only 45 have been completed.³¹ If countries submit a costed plan for national health security, Gavi should provide a share of financial support for capacities that are related to existing HSS grants and programming in the country, as well as additional financing for surveillance capacities. This could incentivize lower-income countries to invest in developing costed NAPHS plans, while strengthening Gavi's influence in GHS.

3. Integrate JEE indicators into Gavi vaccine support and HSS grants.

Utilizing the JEE country reports to understand varying country challenges, Gavi should require all countries that receive funding, including MICs that have received transition extensions,³² to include preparedness indicators in vaccine support and HSS grant proposals. As discussed above, the JEE includes immunization targets and indicators; Gavi should ensure that these indicators align with vaccine support grant indicators. Moreover, Gavi should encourage countries to include JEE targets outside of immunization in their HSS grants and strategies. For example, real time surveillance, part of the JEE's "detect" targets,³³ is extremely important for all countries, regardless of income status or fragility. Strengthening vaccine preventable disease (VPD) surveillance is currently included in Gavi's strategic focus on data within its Partners Engagement Framework (PEF).³⁴ However, this only applies to the twenty countries that receive PEF support, and should extend to all. Global health security should be prioritized in Joint Appraisal discussions, and integration of preparedness targets in cMYPs and national plans should be encouraged. Gavi's senior country managers should work closely with recipient countries to ensure understanding and identification of appropriate and achievable preparedness indicators.

26 "Global Health Security Agenda," accessed March 15, 2019, <https://www.ghsagenda.org/>.

27 "JEE Dashboard," World Health Organization, accessed 15 March 2019, <https://extranet.who.int/sph/jee-dashboard>.

28 Berkley, Seth. "Health Security's Blind Spot." *Science*, Vol. 359, Issue 6380 (2018): 1075-1075. DOI: 10.1126/science.aat4714.

29 "Joint External Evaluation Tool International Health Regulations (2005)," 2016, World Health Organization, https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1.

30 Gupta, Vin et al., "Analysis of Results from the Joint External Evaluation: Examining its Strength and Assessing for Trends Among Participating Countries." *Journal of Global Health*, 2018 Dec, 8(2):020416.

31 "National Action Plan for Health Security (NAPHS)," World Health Organization, accessed 15 June 2019, <https://extranet.who.int/sph/country-planning>.

32 Gavi's Board approved an extension to Nigeria's accelerated transition timeline through 2028. Gavi is now developing an extension plan for Papua New Guinea, pending Board approval in 2019.

33 "Joint External Evaluation Tool," WHO.

34 "Data," Gavi, the Vaccine Alliance, access 15 June 2019, <https://www.gavi.org/support/hss/data/>.

4. Prioritize equity in vaccine delivery in prevention and during complex emergencies.

Gavi's assistance in preparedness and emergency response should be carefully constructed to avoid inequities in vaccine delivery. For example, at Gavi's June 2017 Board meeting, DRC Minister of Health Félix Kabange expressed appreciation for Gavi's assistance during the Ebola outbreak, yet noted the equity challenges that accompany decision-making around vaccine delivery in crises.³⁵ In an illustrative case, pregnant and lactating women were excluded from receiving rVSV-ZEBOV until February 2019.³⁶ This lapse in providing vaccination for an extremely vulnerable population highlights the need for designing approaches to preparedness and disease surveillance that consider equity and ethics.³⁷ Ensuring equity will prove particularly important if and when Gavi begins to deliver preventative vaccines, including for universal influenza. Gavi should carefully assess lessons learned from the 2018 Ebola outbreak in the DRC and share findings with high-risk countries.

5. Complete a mapping exercise to assess Gavi's comparative advantage in the GHS space and invest more in health security capacities.

Gavi is facing a challenging replenishment year, with many competing priorities for financing. Along this vein, in November 2018, Gavi's Board approved support for inactivated poliovirus vaccine (IPV) with country financing arrangements. This decision will add to Gavi's 5.0 replenishment request, as IPV support alone will cost an estimated \$848 million that was not included in Gavi's 2015 replenishment.³⁸ Given differing stakeholder viewpoints, it may be difficult for Gavi to add health security capacities, including surveillance, to its investment case. In order to make the case for its inclusion, Gavi or key partners should conduct a mapping exercise of the current actors in the GHS space and closely analyze Gavi's comparative advantage in supporting prevention activities. For example, an assessment could show Gavi is well-placed to support the immunization and surveillance components of the JEE, while other partners should address health workforce development. Beyond making the case for more financial investment from its funders, Gavi could redirect funding from transitioning countries towards additional resources for global health security capacities.

35 Gavi Alliance Board Meeting Minutes, 14-15 June 2017, https://www.who.int/immunization/sage/meetings/2017/october/2_Gavi_Alliance_Board_Meeting_Minutes.pdf.

36 Branswell, Helen. "Ebola Vaccine Will be Provided to Women Who are Pregnant, Marking Reversal in Policy." STAT, 2019.

37 Carleigh Krubiner. "Time to Deliver: New Ebola Findings Highlight the Need to Improve Evidence and Interventions for Pregnant Women." Washington, DC: Center for Global Development, 2018.

38 Board Review of Decisions, November 2019.



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