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**Assessing the legacy of the
Global Health Workforce
Alliance through the lens of
Complex Adaptive Systems**

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Contact: info@in-source.ca
www.in-source.ca

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Ivy Bourgeault PhD, Professor, Telfer School of Management; Canadian Institute of Health Research Chair in Gender, Work and Health Human Resources, University of Ottawa; and Lead Coordinator, pan-Canadian Health Human Resources Network.

Trisha Greenhalgh, MD, MRCP, OBE, Professor of Primary Care Health Sciences, University of Oxford; and a non-principal general Practitioner, East Oxford Health Trust.

Carol P. Herbert, MD CCFP FCFP FCAHS, former Dean of Medicine and Dentistry, University of Western Ontario, Schulich School of Medicine & Dentistry and President of the Canadian Academy of Health Sciences.

Hugh MacLeod, MA, Founder Global Healthcare Knowledge Exchange; former CEO, Canadian Patient Safety Institute; Senior Fellow, University of Toronto, Rotman School of Management; Adjunct Professor, School of Population and Public Health University of British Columbia; Adjunct Professor, Griffith University Business School, Brisbane Australia

John Millar, MD, FRCP(C), MHSc. Clinical Professor Emeritus, UBC School for Population and Public Health; and Vice President, Public Health Association of BC.

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Background

The Global Health Workforce Alliance (GHWA) was created to address international Human Resources for Health (HRH) issues. Historically, discussions about global HRH issues focused largely on increasing resources to fill staff deficits,¹ taking a relatively simplistic approach to a complex problem. Tackling issue characteristics as varied as recruitment and retention, scope of practice, technological change and mobility requires the coordinated engagement of many sectors. This broader perspective emerged in 2004 when the Joint Learning Initiative (JLI) asserted that many countries would not meet their Millennium Development Goals (MDGs) due to what the report termed, “the HRH crisis.”² International concern was further focused by the World Health Organization (WHO) report *Working Together for Health*, which proposed a global alliance of stakeholders to advocate for resources to develop HRH.³

In 2006 with funding from international donors, GHWA was created with a ten-year mandate. The new organization was governed by a board representing its diverse member base, with operations managed by a secretariat hosted by WHO. Over the following decade, GHWA’s Board developed a global network involving hundreds of HRH stakeholders. As a convener, the Alliance hosted three successful global fora resulting in international declarations and political commitments to address the HRH issue. Acting as a catalyst for change, GHWA organized and produced planning tools and resources to support the evolving HRH policy discourse. However, in addition to its many accomplishments, GHWA also encountered significant challenges and some stakeholders felt that, in view of initial expectations, it should have achieved more in some areas.

The global HRH environment is extremely complex, comprising a wide array of diverse stakeholders and influences. Policy-makers wrestle with workforce development in response to pressure from such areas as technology change, population aging and the rising rate of chronic disease. Facing similar kinds of pressure, health system managers have responded by educating new cadres of workers, improving skills and attitudes of staff, optimizing the delegation of tasks performed by scarce workers, modernizing regulation, and incentivizing different ways of working.

The complex and interrelated nature of corrective actions in response to rapidly changing social and environmental conditions and other emergent pressures on HRH is not unlike the natural process of evolution underlying the survivability of biological species. In biological evolution, adaptive change occurs over time in response to changes in the ecosystem. Although time frames are not comparable, workforce evolution also occurs “organically” in response to complex systemic pressures. HRH practitioners worldwide are constantly adapting to these pressures in ways that are non-linear and unpredictable, often producing unintended consequences. GHWA was created with the ambitious goal of providing a global mechanism to catalyse and guide its members towards a more systematic evolution of HRH efforts at global and country levels. This review assesses the legacy or impact from GHWA’s achievements and provides recommendations for GHWA’s successor in guiding the evolution of global HRH.

Methods

For our high-level assessment of the legacy of GHWA we conducted: (1) a review of published literature about the environment of HRH governance and current practice in the field; (2) a review of relevant GHWA background documents; and (3) key informant interviews with GHWA Board members, staff and stakeholders. For all three activities, we brought a complex adaptive systems (CAS) lens to our analytic process.⁴

Literature review

The research questions guiding the literature review were:

1. What do we know about what works for HRH governance globally? What approaches have been used to date and what are trends in the field?
2. What are the gaps? What don't we know?
3. Who else is involved in developing international HRH policy? How does GHWA fit into the HRH governance landscape? Has GHWA been successful in adding to the knowledge and action base in unique ways?
4. What are the measures of success for GHWA and how have impacts of its activities been determined?

Constraints dictated a strategic search process, initially with guidance from GHWA staff and our expert panel, followed by key word searches of indexed databases, to identify key articles and to gain further depth in the area of HRH governance. Sixty-five articles were considered, both academic (i.e., peer-reviewed) and non-academic (e.g., government and NGO reports, grey literature). Articles were excluded if their abstracts did not mention HRH or governance, focused too narrowly on a specific occupation or country, or were in duplicate. Fifteen publications met inclusion criteria, so were fully reviewed and extracted using a template developed from the research questions. Key article references were mined for additional sources from which eight additional articles were extracted (Appendix 1).

Background document review

The research questions for the background document review were:

1. What was GHWA intending to do at the outset? How was it conceived? What rationale was provided?
2. How has the original plan changed over time?
3. What are the major milestones in terms of activity?
4. What has worked and what has not?
5. How does GHWA serve as a model for HRH governance? What is the impact of GHWA globally?

To deepen our understanding of the history of GHWA we catalogued over 700 documents from the GHWA website. Titles and descriptions of each were categorised, reviewed and prioritised based on their relevance regarding the evolution of GHWA's strategy, successes and challenges, and global impact. Data extraction from 27 most relevant documents (Appendix 2) was summarized to guide the key informant interviews.

Key informant interviews

Twenty-three individuals from a list of 26 provided by GHWA staff were interviewed over a four-week period in late 2015. They included current and former GHWA Board members and executive directors, as well as funders, academics and other global HRH stakeholders. The

interview protocol (Appendix 3) included questions about GHWA’s legacy and strategies for advancing global HRH governance. Interview responses were analyzed to identify recurrent themes and observations.

Theoretical framework

The evolution of the global health workforce network can be best understood when viewed as a natural outcome of a Complex Adaptive System (CAS). CAS are spontaneously self-organizing and constantly adapting to change; change is mediated by the actions of multiple, independent actors; change is non-linear and often unpredictable, with changes to one part of the system producing unexpected changes in other parts.⁴

To further guide our analysis of GHWA’s legacy, we also applied the framework developed by Shiffman et al.⁵ (Figure 1) on the emergence and effectiveness of global health networks.

According to this framework, *issue characteristics* (e.g. HRH shortages and related framing strategies) continually interact with *network and actor features* (characteristics of, and relationships between individuals and organizations in the network), as well as the *policy environment* (measurement systems or accountability structures), resulting in *network emergence and effectiveness*. As we would expect with a CAS, as the policy environment and perceived issue characteristics change over time, the goals, structure, and even members in the network are compelled to change. These dynamic elements interact with other “moving parts” within their specific context. For Shiffman et al. these shifting interactions mean that results may be “...contingent rather than determined: Things quite easily could have turned out differently.”⁵ (p5)

To ensure consistency and to minimize the risk of bias from any resource type, we triangulated our findings from the literature review, background document review, and key informant interviews. We present the results here, using Shiffman’s framework in combination with a CAS approach to explain how the mechanisms of network development interacted with other influences in a dynamic context. The arrows between the key components or spheres of the framework represent the constant, multiple, and dynamic interactions that contributed to the emergence and effectiveness of GHWA. We also considered GHWA’s history, attempting to

identify critical success factors in how it addressed each of the components over time. An important limitation is that although we have attempted to identify achievements that could fairly be attributed to GHWA efforts, many other organizations also contributed to the changes during this period. In the discussion section, we present key recommendations for the next phase of global HRH governance based on our findings and analysis.

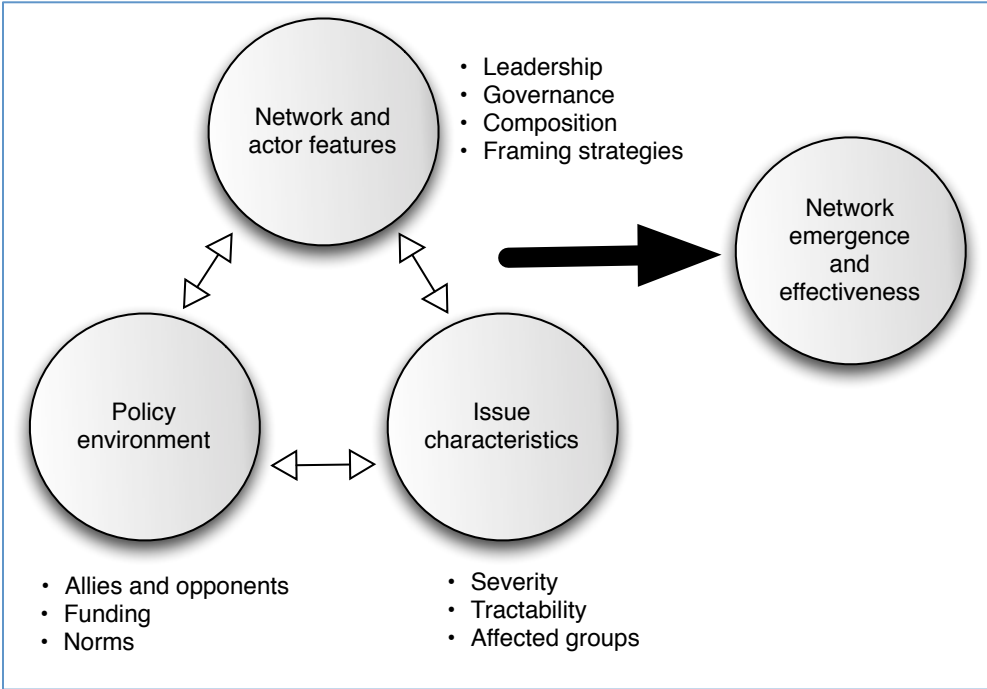


Figure 1: A framework on the emergence and effectiveness of global health networks.
 Source: Shiffman J et al. A framework on the emergence and effectiveness of global health networks. Health Policy and Planning 2015; 1–14.

Key Findings

Network & Actor features

GHWA was created in 2006 to provide a global focal point for consolidated action on HRH issues. Some of our key informants consider this a belated response to a long-standing problem. Governed by a multi-sectoral board and supported by a secretariat hosted by WHO, GHWA engaged over 400 members from national governments, international development agencies and banks, academia, and civil society groups including professional organizations.

Significantly, GHWA reached outside traditional health service stakeholders to include aid donors as well as private not-for-profit groups, although it was less successful in engaging for-profit private sector interest.

Our key informants cited specific activities as evidence of GHWA's success in convening networks and actors. Three global fora were organized, resulting in significant political commitments to improve resources and policies. Key informants noted that GHWA was the only organization that could have convened these well-attended fora of diverse stakeholders. Other agencies lacked the mandate or trust, a critical element in effective network development.⁶ One key informant commented: "We learned that it is possible to create a broad movement that allows participants to set their own local and regional priorities.... [And] that these regional efforts may be the most appropriate level to develop implementation strategies. The 'centre' (i.e. GHWA) can frame the issues but not drive the change."

Summarizing the literature on network development, goal-oriented networks such as GHWA require greater structural stability to ensure participants engage in mutually supportive activities, address conflicts, and use resources efficiently.⁶ GHWA's relatively stable structure was particularly appropriate at the outset, considering the number of network members, the complexity of the issues and the lack of consensus regarding network goals.⁶

Issue Characteristics

According to Shiffman's framework, *issue characteristics* include how topics are framed as the basis for a common agenda. One of GHWA's key achievements was its ability to shape the global dialogue on HRH issues. Each of its global fora resulted in key policy statements that framed ongoing dialogue about the importance and causative factors of HRH shortages, and how these should be addressed. The Kampala Declaration from the first forum highlighted the need for all stakeholders to resolve the HRH crisis through an "Agenda for Action."⁷ A key outcome of the second forum in Bangkok was a critique of progress since the first forum and a recommendation for follow-up work to achieve the goals of the Agenda for Action. At the third forum, the Recife Declaration set the stage for countries to accept accountability for taking action to address their own HRH issues.

Despite such successes, GHWA’s ability to maintain a consistent, governance-level agenda remained a challenge. Following the provisions of the GHWA governance handbook, GHWA Board members participated in the governance of the partnership with independent voices rather than as agents or representatives of their organizations. At times this disconnection acted as a limitation, hindering development of a common platform for action. It was observed that active board membership and engagement is essential to the effectiveness of an organization like GHWA. According to one key informant: “Governance matters, and if a board is somehow able to pull on its networks and link people who want to [achieve] this agenda, then things will move forward.” The same informant ventured that the effectiveness of the GHWA Board in support of the Alliance’s agenda became weaker over time – a view shared by numerous other informants.

Key informants generally agreed that GHWA’s two greatest legacies include first, the wide-scale introduction of thinking and planning in terms of complex adaptive systems to HRH issues and second, the development of network learning and competencies that will be the foundation for the next iteration of global HRH efforts. Evident as this now appears, GHWA’s pioneering efforts raised awareness of the systemic nature of the HRH crisis among various stakeholder groups, at both national and international levels. For instance, GHWA’s influence prompted inclusion of HRH-specific language and targets in the UN’s Global Strategy for Women’s and Children’s Health. Key informants noted the importance of linking previously isolated or unengaged stakeholders, in particular from development finance and disease-based programmes. Building a systems perspective demonstrated that achieving Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs) would require an “investment platform” to deliver a comprehensive approach to HRH development.

Policy Environment

As mentioned previously, GHWA’s first global forum resulted in the Kampala Declaration. This first forum also reignited momentum for a “WHO Global Code of Practice on the International Recruitment of Health Personnel,” later adopted by the World Health Assembly.⁸ This very significant achievement indicated that high-income countries recognized not only the

complexity of their own HRH issues but also their potential to undermine national health system development in low- and medium-income countries.⁹ Creating the political will to achieve these agreements at Kampala was a major contribution by GHWA in its advocacy role.

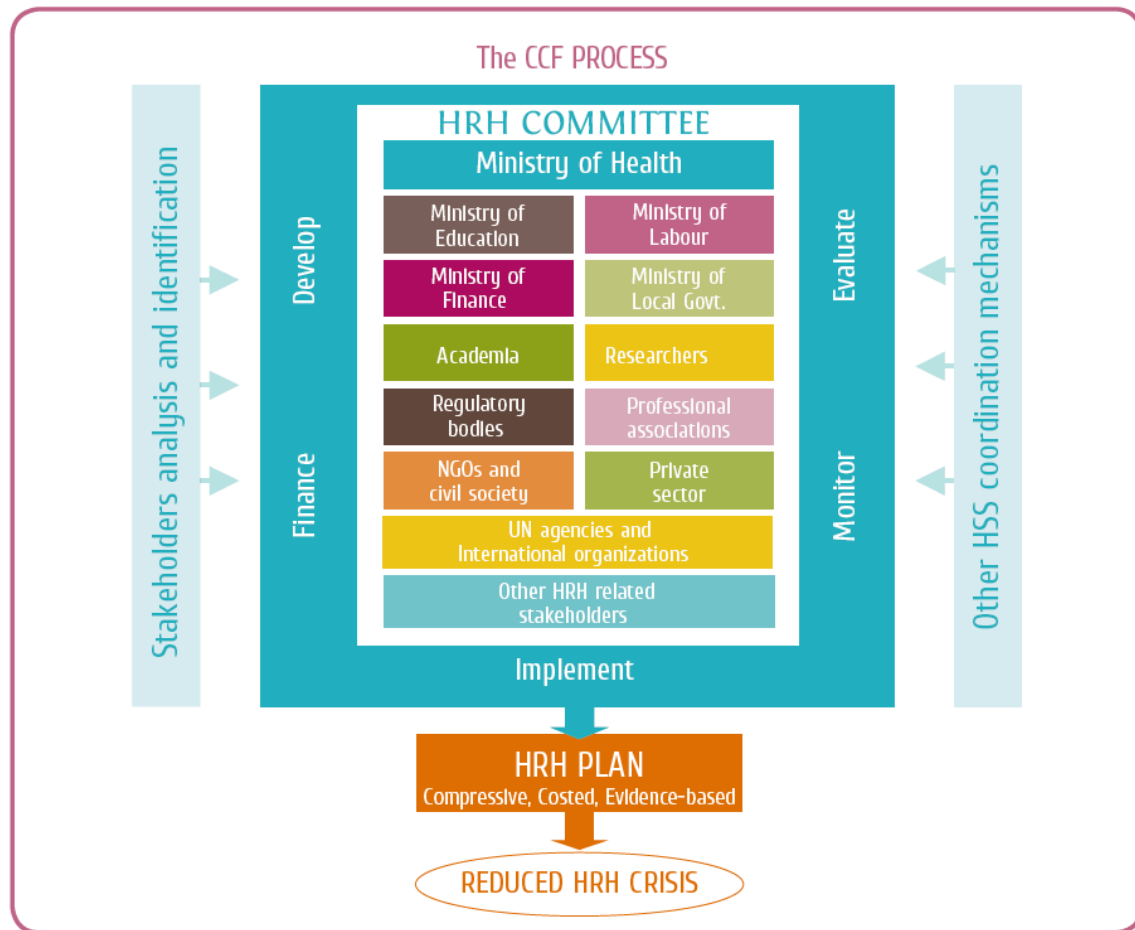
The need for both a common agenda between global funders and local actors, and mutually reinforcing activities, is reflected in the literature on HRH governance, which emphasises *local applicability*.¹⁰⁻¹² Without attention to local contexts and capacities, HRH plans may have little impact.¹ Several GHWA programmes helped strengthen capacity within applied areas: extensive work on tasks and roles of mid-level and community-based health practitioners; building the Health Workforce Advocacy Initiative to link civil society initiatives; and supporting HRH aspects of various “vertical” programmes that targeted specific health issues such as HIV-AIDS. We heard mixed reviews about GHWA’s repository of analyses, reports and tools. An external evaluation found these resources were high quality and influential at a global level, but largely unknown by intended end-users at the national level.¹³ Additionally, some key informants thought this work was duplicative of other repositories.

Another example of influencing the policy environment was the GHWA Board’s recognition that effective networks should include shared measurement systems.¹⁴ In 2011, GHWA organised the second global forum, at which participants identified a lack of reliable and comparable national data on HRH. They recommended routine collection, collation, analysis, and sharing of country-level data to inform HRH planning and management. In addition, participants called for new benchmarks for monitoring and evaluation that would consider more variables than national per-capita densities of health workers.¹⁵

The third global forum in 2013 is a further example of GHWA’s ability to influence the framing of HRH issues. Participants issued another call for action in the Recife Political Declaration on Human Resources for Health.¹⁶ While its contents were largely similar to previous forum statements, including the recommendations of *Working Together for Health*³ and the 2004 JLI report,² the Third Global Forum outcome document was negotiated by Member States, and was subsequently endorsed by the World Health Assembly, adding a dimension of political ownership and commitment that went beyond that of the first two global

fora. National governments and NGOs issued public commitments to their own HRH goals - a major accomplishment since it required accepting accountability for improvement. Forum attendees recommended that WHO develop what later became its “Global Strategy on HRH: Workforce 2030.”¹⁷ Following this, GHWA led an inclusive and participatory process to analyse current thinking, synthesising evidence as a foundation for WHO’s Workforce 2030 strategy.

Not every attempt by GHWA to influence the HRH policy arena was successful. Within the “policy environment”¹⁸ WHO coordinates global health diplomacy through negotiation and support,¹⁹ whereas GHWA acted as a convenor, knowledge broker, and advocate to raise political awareness and catalyse action. At times, the different roles of WHO and GHWA became confused. One instructive example is the Country Coordination and Facilitation (CCF) Framework for national planning and development.²⁰ Following the creation of GHWA, initial enthusiasm led to rapid growth of the network with productive engagement on several initiatives. After the first global forum, however, tension arose among representatives of the GHWA Board (which included WHO), partly due to budget pressures from the global economic crisis, which subsequently permeated working relationships of the staff in the different agencies and in the WHO and GHWA secretariat. Recognising the need to focus its systems perspective on actionable issues, the GHWA Board concentrated on the national HRH context. The resulting CCF Framework provided guidance for inter-sectoral and multi-constituency collaboration to accelerate the implementation of a country’s HRH agenda (Figure 2).



- CCF PRINCIPLES**
- Building on the existing mechanism/s;
 - Representation of HRH stakeholders' constituencies;
 - Coordinated leadership and stewardship;
 - Defined roles of relevant stakeholders;
 - Coherent HRH policies and priorities;
 - Joint efforts and actions;
 - Linkages with other coordination mechanisms.

Figure 2: Diagram of CCF process from CCF Technical Poster, http://www.who.int/workforcealliance/countries/ccf/CCF_Poster_TechnicalPoster.pdf?ua=1

Several key informants regarded GHWA’s CCF work as a major contribution, most noting that where it was applied, the CCF process brought together diverse participants within each country, often including hard-to-reach political leaders. However, we also heard that some stakeholders viewed GHWA as over-stepping the boundaries of its mandate with its CCF work, intruding into the realm of national governments and creating significant friction

between representatives of the Board and staff within the GHWA Secretariat and WHO. Contextualizing this, one key informant commented, "...these are issues that WHO's HRH department should be looking at... [However] HR was too headquarter-centric so there was a gap in support to countries." Clearly this is an area fraught with challenges, however, despite the tension that developed between some of the parties involved, the CCF methodology appears well-regarded, with external evaluation and GHWA's own analysis showing positive outcomes for several countries.^{13, 21, 22}

The period during which GHWA implemented its CCF Framework is seen by some as the low point in its history. With its CCF activity, the GHWA Board appears to have been trying to provide structural stability, focused action and practical opportunities for shared learning. Unfortunately, this created a perception that the GHWA Board leadership was politically insensitive about role boundaries. Key informants identified situational factors such as leaders' communication styles, budget pressures and territoriality within WHO as further aggravating factors. To mitigate this the GHWA Board subsequently refocused its role, strengthened its advocacy and convening functions through the global fora and re-defined the boundary issues within WHO's mandate. Implementation issues notwithstanding, the CCF Framework is currently viewed by many key informants as a valuable methodology for HRH improvement and amongst GHWA's most significant achievements.

By late 2011, a mid-term evaluation noted GHWA's strengths in advocacy and convening, the success of its global fora, and its ability to work at global, regional, and country levels.¹³ Weaknesses identified by the evaluation included the secretariat management style; advocacy that was too focused on the deficit in numbers of health workers in developing countries; and lack of innovation in renewing the Alliance's objectives over time. The evaluators identified potential challenges for GHWA, including new global and regional HRH organizations, and increasing competition for donor funds. The GHWA Board responded to the evaluators' findings with transformed objectives. These prioritized areas of work where an alliance has comparative strength such as its intersectoral membership representing strategic constituencies. The Board also developed a different business model, with a greater emphasis on results and

specific accountability of the members and partners. This stronger strategic focus resulted in reduced friction between GHWA and WHO.

In recent years the task of mobilizing financial resources has become particularly challenging due to both the global economic downturn and WHO's budget difficulties. As one key informant stated, "GHWA has often had to spend quite a lot of time trying to mobilize funding, which can be a distraction from the actual job of doing something about the workforce crisis." According to key informants, reduced financial commitments to the Alliance workplan (2013-16) - following the transition in 2011 of the Chairmanship of the Board from Norway to Japan - was one of the factors that ultimately led to the Board's decision to complete its existing mandate and transfer the leadership of the HRH agenda back to WHO. In the wider context, it is important to note that many WHO-hosted partnerships were established in the 2000's when international development assistance for health was increasing. Following the global financial downturn starting in 2008, other partnerships collapsed or were transferred outside WHO. GHWA at least managed to survive these changes and reposition the HRH agenda within WHO at the end of its mandate.

Summing up, our key informants were consistent in recognizing GHWA's effectiveness in the areas of advocacy and convening. There were mixed opinions about its effectiveness as a knowledge broker – although for some this function was well served by the global fora and its early work on task forces. GHWA successfully integrated all three elements of Shiffman's model - issues, policies and networks – across such diverse HRH issues as education, retention, skill mix and labour markets. As expressed by one key informant, "GHWA fundamentally changed the policy framework in the health sector. It shifted policy and then enabled it to move into practice."

Implications for future global governance for HRH

As with the presentation of our findings, the following recommendations are organized according to features of the Shiffman model, using a CAS lens. In this section, we refer to GHWA's as-yet broadly defined successor, the new network model or platform for global

HRH governance, as a “central hub” within WHO and operating under standard procedures for a technical expert network rather than as a hosted partnership. All key informants agreed that the on-going need for global governance of HRH networks is paramount. From our review we recommend the following considerations in establishing the new central hub:

1. Effective leadership and management are both critical
2. Balance “tight” and “loose” approaches to the structure and processes of the core hub
3. Use a vigorous communications strategy to create support for the central hub
4. Focus goals, priorities, and membership for the central hub
5. Support the shared measurement of progress on agreed goals

Network and actor features

1. Effective leadership and management are both critical

This was the main message we heard from many key informants, particularly regarding the difficulties during GHWA’s middle stage. As systems become more complex, leaders need to rely more on facilitation and empowerment, self-organizing structures, participatory action, transparency and continuous evaluation.^{23,24} The dysfunction they experienced during GHWA’s middle years left some key informants with strong negative feelings. Such tension should not be unexpected as it is a persistent problem in the context of a CAS.^{9,25,26} Based on key informant insights, we could add to the comment by Shiffman et al: “Things quite easily could have turned out differently ...*with more adept leadership.*” As Iles and Sutherland suggest, leaders must model openness, risk taking and reflection to build and communicate a compelling vision, while providing the support needed to lead others toward it.²⁷ Key informants noted that GHWA exhibited more flexibility than was feasible or comfortable for WHO. Looking ahead, they voiced concerns that a central hub hosted by WHO may be subject to bureaucratic processes. This concern may be unfounded given WHO’s evolving governance mechanisms for hosted partnerships since 2011, but remains prevalent in some of the constituencies.

Balancing the “softer” leadership skills, our key informants also noted that the new central hub will require strong administrative capacity, for instance to coordinate roles and relationships. GHWA played a critical role as a “backbone support organization,” a contribution highlighted

in the literature on networks.¹⁴ Key informants clearly expect that despite any resource mobilisation challenges, the new secretariat should have sufficient budget to fulfill its role and achieve impact. Effective management refers to establishing central hub structures such as working groups with clear role expectations and support; priority setting based on a shared vision and common agendas; plus processes to facilitate rapid and comprehensive information-sharing and learning within constantly evolving actor, policy and issue environments. Such feedback mechanisms can result in information overload, without adequate staff time to construct and apply focused communications. The feedback mechanisms work best if user friendly AND well aligned with accountability mechanisms.

2. Balance “tight” and “loose” approaches to structure and processes of the central hub

Obviously, network success is not determined solely by a formal governance model. Provan and Kenis observe that the effectiveness of any network model varies according to where and how densely trust is located within the network; its size; consensus on strategic goals; and the nature of the task.^{6, 18} Similarly, Ferlie et al. identify such key influencing factors as inclusiveness and engagement of stakeholders, shared learning, and capacity for innovation and change.²⁸ Over time, simple projects create trust and capacity for more complex endeavours.⁶ We recommend that the new central hub should be built iteratively, with frequent and structured opportunities for trust-building, learning and self-assessment.²⁹

However, too much flexibility creates the risk of messy and inconclusive processes. The challenge is that as networks become more complex, demand can be expected to increase for a central hub to provide structure and direction.⁶ There are established and mandatory WHO procedures for operating networks: these are more flexible than those that govern formal partnerships, but the challenge will be in communicating these norms effectively, and in how partners adapt to them. Early in its mandate, the central hub will need to develop an architecture appropriate for a global, inter-sectoral governance network. This includes the constitution of the satellite networks including common and specific purposes and roles, adequate platforms supporting their work, financial stability and distribution of responsibility. Yet at the same time, central orchestration around larger themes will need to create opportunities for stakeholders to pursue their own goals through local innovation, recognizing

contextualized priorities and capacity. In the next stage, the central hub will need to strengthen participants' collective orientation, including communication to and from their home agency. One key informant expressed concern that limited financial resources for the central hub would reduce its ability to influence the agendas of some of the satellite hubs or to maintain pressure for results. Another urged that central hub oversight must ensure at least some priorities and strategies are linked across the satellite hubs, because civil society groups may lack resources to balance the influence of wealthier groups.

3. Use a vigorous communications strategy to create and maintain support for the central hub

Evaluation of GHWA's performance is outside the scope of this review, but perceptions of effectiveness deserve comment. Overall, despite GHWA's many achievements as cited in the mid-term evaluation,¹³ several key informants felt it did not perform to its potential and did not achieve notable impact "on the ground." One view holds that regional alliances of network members were not strong enough to influence high-level decision makers, or to engage stakeholders outside the health sector. On the one hand, this should not be a surprise: as noted by some key informants, training programmes and policy initiatives take many years to yield results. It should also be noted that GHWA spent an infinitesimal portion of the annual global spend on health care, and a fraction of what was thought to be required to achieve its original mandate. On the other hand, GHWA did spend \$50 million over its ten-year term, so the expectation that it should have had some impact is not unreasonable. How can these conflicting views be balanced? Some key informants noted possible factors contributing to the perception of GHWA's insufficient impact, particularly the deterioration in communications from GHWA to its members over time; a critical factor that is often overlooked – or not adequately known by external stakeholders – was the dramatic decline in availability of financial resources following the Chairmanship transition in 2011. Justified or not, perceptions of a lack of impact matter, especially when political leadership and national support for investments in HRH can change quickly. To avoid similar issues, the central hub will need sophisticated, coordinated communications expertise delivering timely, relevant messages within and beyond its networks.

Issue characteristics and the policy environment

4. Focus goals, priorities, and membership for the central hub

Issue characteristics and the policy environment are closely intertwined and evolving. For instance, competition for scarce funding requires alignment with decision-makers' priorities, especially since evidence is only one political consideration. This uncertain environment is typical for networks operating in a CAS, where strategic management requires a mix of loose and tight approaches. This means maintaining strategic goals tightly in view, carefully selecting from the range of implementation approaches and responding nimbly to evolving situations with consistent management grip.

First, it will be critical to focus on the central hub's purpose or mission. Despite valuing GHWA's system perspective, some key informants felt it made the agenda unmanageably large – including issues ranging from high-level policy dialogue to technical details – and thus difficult to prioritise. Whereas all our key informants valued GHWA's advocacy and convening activities, not all saw added value from the CCF work and knowledge brokering. In the future, resources will be even more constrained so focused priority setting will be critical. Key informants suggested that although some networks may emphasise research, more are likely to be concerned with accountability, advocacy (especially for inclusive economic growth) and operational issues, such as productivity. At the same time, a strong working relationship between advocacy and research will be critical to ensure evidence-informed strategy options and quality evaluation. The central hub could make sense of this diversity, for example by tightening its strategic focus – possibly around the goals of WHO's Global Strategy on HRH: Workforce 2030, the outcomes of the newly-launched High-Level Commission on Health Employment and Economic Growth or broad themes such as the SDGs, or to support regional initiatives. One key informant suggested, "Use the network as a 'collective brain' to pool expertise, i.e. to identify where the next opportunities will emerge."

Following from a clearly defined purpose, focusing on "the right network for the right issues" will be critical to avoid duplicating efforts of other groups. There are already many autonomous networks addressing HRH issues, including vertical, disease-based programmes that advocate for narrow HRH interventions in their areas of interest. It seems likely that even

more will emerge, with some being less concerned with development issues and more focused on economic growth and labour market issues.^{29, 30} Identifying the right stakeholders for the central hub's governance role will require analysing networks and actors both within and beyond WHO. Regional networks may play an important role, for instance to tackle HRH issues in high-income countries. It will be important to engage former GHWA members and others with a primary role outside the health sector, recognizing for instance, the increasing role of the private sector in building civil society and delivering health services and education.

5. Support the shared measurement of progress on agreed goals

Strengthening accountability systems has special relevance for HRH governance as noted earlier. Our literature review and key informants indicated that data collection capacities, progress indicators, and repositories pose significant issues for HRH governance.^{29, 31-35} It will be critical to align accountability with shared learning mechanisms. Developing system assessment and learning tools for HRH with common language and metrics will guide global priority-setting, support advocacy by civil society groups at the national level and provide evidence to assess innovations. Fostering global monitoring and mutual accountability is a natural development, consistent with GHWA's achievements at the global fora. Support for developing shared measurement and learning systems will also be helpful if the central hub chooses to prioritise assistance to countries in meeting SDG and UHC goals. However, any success with accountability measures will depend on the central hub earning authority and legitimacy from stakeholders to deliver this sensitive responsibility on their behalf.

Conclusion

At the time of its emergence, GHWA was the right organization to promote “workforce evolution” at the level of global systems – clarifying priorities, advocating for better practice, developing resources for global governance, and bringing together diverse actors to build an inclusive movement. A decade later, GHWA leaves a substantial legacy: widespread understanding of the complexity of HRH issues; a proven framework for country-level action; a wealth of evidence for innovation; and an empowered stakeholder base. Specific accomplishments include the WHO Code, the Global Strategy, and commitments to greater

accountability on the part of national actors. From this foundation, new networks are emerging, in part due to the Global Strategy, which explicitly calls for international HRH collaboration and coordination.

The need for global governance of HRH networks is paramount. From our review we recommend the following considerations in establishing the new central hub or HRH network:

1. Effective leadership and management are both critical
2. Balance “tight” and “loose” approaches to the structure and processes of the core hub
3. Use a vigorous communications strategy to create support for the central hub
4. Focus goals, priorities, and membership for the central hub
5. Support the shared measurement of progress on agreed goals

As outlined in this assessment report, the experience of GHWA over its ten-year mandate offers valuable guidance for achieving success with future efforts at global HRH coordination and development. Naturally, systemic challenges will persist and the end goal may always be elusive. Nonetheless, the requirements are clear: balancing the competing pressures of issue complexity and situational urgency while encouraging the progressive evolution of our most valuable asset, the workforce that constitutes our global health care system.

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Appendix 3: Key Informant Interview Questions

1. Please describe **your role/relationship** with respect to GHWA, and the time period you have been involved.
2. In your own words, please describe what the **purpose of GHWA** is and briefly describe a few of the key strategies it uses to do its work.
3. What do you think has been **the impact/effect of GHWA in specific countries and/or globally?**
4. What will be the impact/effect of GHWA's **knowledge broker** function?
5. What will be the impact/effect of GHWA's **advocacy function?**
6. What impact/effect has GHWA had on **collaboration among multi-national health and HRH institutions?**
7. 5 years or 10 years from now, what do you think will be the legacy of GHWA?
8. What role has GHWA played in **priority setting of the HRH agenda nationally and globally?**
9. Did you notice **a change after** any of the following releases and/or events, and if so, how/what?
 - a. Kampala declaration
 - b. Adoption of WHO Code of Practice on International Recruitment of Health Personnel
 - c. Any of the three Global Forums on HRH
 - i. Kampala, Uganda 2008
 - ii. Bangkok, Thailand 2011
 - iii. Recife, Brazil 2013
 - d. 2011 mid-course evaluation of GHWA
10. **Which GWHA processes were most helpful** (e.g. convening members in person or through online forums, advocating for specific policies, developing reports on special topics)?
11. Looking ahead, what **five things would facilitate HRH organizations working together** more effectively?