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Pandemic preparedness in the 21st century: which way forward?

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See Health Policy page e428

The COVID-19 pandemic has stimulated extensive discussions on the necessary reforms to better prevent, detect, and respond to future pandemics. In *The Lancet Public Health*, Johnathan Duff and colleagues[1] add a useful conceptual framework to these discussions. The authors recognise the importance of WHO and of the International Health Regulations (IHR), noting that the IHR are essentially non-binding and non-enforceable while the WHO is underfunded. They provide ten recommendations to strengthen global health security, some of which affirm current practices, whereas others propose potentially new institutions. The authors acknowledge the practical challenges of governing global health and propose a so-called invested alliance as a first step.

Duff and colleagues' Health Policy[1] describes a set of important organising principles and attributes of global solutions to pandemics. However, strengthening national-level capacity as envisaged by the IHR revisions, in 2005, which specified 13 core public health capacities for all countries, is equally important.[2] These revisions foreshadowed the challenges of the COVID-19 pandemic, when countries were left to their own resources rather than benefiting from the global solidarity expected under the IHR safety net.

Political momentum for more equitable resource sharing has been created by a recent open letter by 26 heads of state, the president of the European Council, and the director-general of WHO, calling for a new "international treaty for pandemic preparedness and response" underpinned by the IHR.[3] This treaty should include ways to appropriately build capacity for, and enforce national standards on, pandemic prevention, detection, and response, including distribution of global public goods and essential innovations such as vaccines.

Such a treaty could build on the existing WHO and IHR infrastructure, aiming for enforceable obligations and new political commitments from WHO member states.[4] The ongoing review of the global pandemic response will provide views on additional reform areas.[5] Lessons can also be learned from the Framework Convention on Tobacco Control, the first global health treaty under the auspices of WHO.[6]

When negotiating that treaty, it is important to recognise that the world is organised as a collection of nation-states with important health security responsibilities to their citizens and also to the world. A so-called top-heavy treaty in which the health security framework overly prioritises a global entity might thus lead countries to perceive that their responsibilities are lessened. Therefore, there should be an equal priority on health security at the national and subnational levels through capacity building and strengthening to ensure that national responsibility and authority are not ceded to global entities.

The world must aim for a balanced treaty and governance framework that strongly encourages countries to take responsibility to prevent, detect, and respond to pandemics, while preserving a role for a global entity that helps to build capacity for and enforces minimum standards, provides technical assistance, and acts as a safety net for countries and regions with fragile health systems. That framework must provide adequate incentives to strengthen national core capacities and to collaborate between countries when necessary. A balanced framework would also fit with the increasing conversations about decolonising the approach to global health.[7]

Finally, as suggested by Duff and colleagues,[1] there is a need to assess the existing large and complex global health landscape of non-WHO and non-IHR infrastructure before creating any new institutions. Existing organisations and initiatives deliver political legitimacy, sustainable funding, and technical expertise in global health. They provide technical support and can immediately deploy resources and authority if necessary. Existing organisations and initiatives have institutional memory and networks, whereas new institutions must wait several years to be effective. And because many of them are simultaneously addressing other worldwide collective problems, such as climate change or global financial crises, solutions to these problems can complement solutions for global public health.

These organisations and initiatives include the UN (especially the General Assembly and possibly the Security Council); development financial institutions such as

the World Bank; and multilateral organisations such as Gavi, the Vaccine Alliance, the Coalition on Epidemic Preparedness Innovations, and the Global Early Warning System, a joint initiative of the Food and Agricultural Organisation, the World Organisation for Animal Health, and WHO for monitoring health threats at the human–animal–ecosystem interface. And these organisations are already financially supported by donor countries such as those that make up the G7 and the EU, China, and others.

There are two key issues for future exploration to complement the framework proposed by Duff and colleagues. First, their article explains the what, but not the how. The theory-to-implementation gap[8] in global health is relatively underexplored, especially in international relations, economics, development, and political science. International law experts could propose the right legal instruments and pathways to achieve legitimate and effective enforcement mechanisms. Second, intersectoral approaches[9] are crucial because substantial non-health expertise is required for global health security, in areas such as One Health, the political economy of global health, intellectual property rights, and the social determinants of health. Experts in cross-government working could possibly propose a better way forward.

In summary, Duff and colleagues describe a useful set of attributes for a global health governance framework. There should, however, be an equal emphasis on strengthening national-level capacities through the IHR and WHO. A binding treaty and effective resource sharing could help to build a balanced governance framework that appropriately allocates subnational, national, and global responsibilities and that does not stifle national initiative, while providing a global safety net to support countries and geographic areas that have not yet developed those capacities. This treaty could reach these objectives by building upon the existing WHO and non-WHO infrastructure. Future discussions on practical and interdisciplinary real-world solutions to ensure a balanced approach to pandemic preparedness and response are necessary.

We declare no competing interests.

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*Swee Kheng Khor, *David L Heymann*
david.heymann@lshtm.ac.uk

United Nations University International Institute for Global Health, Kuala Lumpur, Malaysia (SKK); London School of Hygiene & Tropical Medicine, London WC1E 7HT, UK (DLH)

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