IMPACT

MULTIDISCIPLINARY HEALTH RESEARCH

GLOBAL INSIGHTS

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Impact Outlook

- 'Innovation has always been the backbone of progress in global health, and new technologies offer great promise to further accelerate the remarkable gains achieved over the past few decades'
- 'For a global health tool to be impactful, it must not only be safe and effective, but also affordable, appropriate for use in low-resource settings, and accessible to the patients who need it. Bringing to market new technologies that meet all this criteria is challenging'

Photo: PATH/Gabe Bienczycki

Bringing healthy lives within everyone's reach

*As Director of the **Global Health Technologies Coalition (GHTC), Jamie Bay Nishi's** role is to make the collective voice of the global health research and development (R&D) community stronger and more persuasive than ever. Here she talks about the challenges facing global health R&D and the coalition's efforts to better inform policy makers.*

Could you begin by explaining a little about the background behind GHTC?

GHTC is a group of more than 25 non-profit organisations working together to advance policies to accelerate the creation of new drugs, vaccines, diagnostics and other health tools that bring healthy lives within reach for all people. It was established in 2007 to serve as a collective voice for the global health research and development (R&D) community and improve policy makers' knowledge of poverty-related and neglected diseases and conditions, and the critical need for new tools to fight them. Because these diseases and conditions affect people living in the world's poorest places, there is limited commercial market to spur private-sector investment in developing new technologies to target them. So government funding and policies that incentivise sectors to work together in support of this research is critical to catalysing development of these lifesaving technologies.

At the time GHTC was founded, individual organisations were working to raise awareness of the need for new tools to combat global diseases, but these efforts were often focused on each organisation's health or technology area. This left systemic challenges across the R&D process. GHTC was formed to draw these disperse organisations together to create a coordinated global health R&D advocacy community that could advocate with one voice about the need for new health technologies across different health and technology areas.

Could you explain more about how you go about supporting policies, which will ultimately help to advance global health R&D?

To achieve our goal of catalysing new technology development to save lives, GHTC concentrates on three core functions. First, we educate policy makers and the public about the impact and value of R&D, and the critical role new technologies play in accelerating progress in global health, often conducting analyses and disseminating evidence to build a strong humanitarian and business case for investing in R&D to target global diseases and conditions. Second, we convene our members and strategic partners to share ideas, develop common positions and messaging, and build and advance a shared advocacy agenda. Finally, and most importantly, we advocate for policy solutions and public investment to catalyse the development of new global health technologies.

In terms of outreach to the US government, we work with members of Congress, administration and agency officials to support robust, stable funding for global health R&D and ensure funds are most effectively used across the many US government programmes that support global health innovation. We also work to incorporate R&D as an integral part of existing global health programmes and strategies, and advance policies and legislation to accelerate the creation and rollout of new health tools. At an international level, we strive to ensure global health R&D is part of the conversation in global forums like the World Health Assembly or UN General Assembly, and work to shape global initiatives to finance and share knowledge on R&D activities and improve access to lifesaving health technologies.

Could you talk about your efforts to educate policy makers as a means of making more informed, and to a degree, speedier progress?

At the GHTC we have identified six core policy solutions that could make a significant impact on the ability to develop and deploy new technologies. They include: 1) increasing sustainable public funding for R&D to jumpstart and advance R&D for neglected diseases and conditions with limited commercial markets; 2) improving coordination between government actors, non-profits and the private sector to enhance the efficiency and effective use

In her role as director of GHTC, Jamie Bay Nishi manages the coalition's engagement with members and other stakeholders and partners in government, the private sector and civil society. She previously served as Managing Director of Devex LIVE at Devex, a media platform for the global development community.

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of current resources and address gaps in research programmes; 3) fostering new multi-sector partnerships to leverage the strengths and contributions of various sectors engaged in R&D; 4) strengthening regulatory pathways to ensure safe and effective products efficiently reach those in need; 5) enacting market-based incentives to encourage greater private-sector engagement in global health research; and 6) examining innovative financing mechanisms to help supplement traditional sources of R&D financing with new resources from the private and philanthropic sectors and non-traditional donors.

Could you talk us through the pipeline of promise and the main challenges facing those working in health R&D?

Innovation has always been the backbone of progress in global health, and new technologies offer great promise to further accelerate the remarkable gains achieved over the past few decades. However, the path from a scientific discovery in a lab to a lifesaving product on the ground is complex, involving many partners and processes, with scientific, policy, and regulatory challenges that can stall progress along the way.

For a global health tool to be impactful, it must not only be safe and effective, but also affordable, appropriate for use in low-resource settings, and accessible to the patients who need it. Bringing to market new technologies that meet all this criteria is challenging.

The process requires carefully analysing the unique health needs of communities; investigating the body's unique response to diseases and treatments; testing these approaches in animals and humans to ensure safety and efficacy; securing regulatory approval for a product in multiple countries; and addressing market conditions that can hinder delivery, introduction and scale-up of interventions where they are most needed.

Along this path to market, many challenges emerge which can stall progress including: securing sustainable funding to continue to advance research; conducting effective clinical trials in settings with weak health systems; securing regulatory approval across multiple countries and in nations with poorly resourced regulatory authorities; and distributing and scaling up products in nations with poor infrastructure and health systems.

GHTC works with member organisations, partners, and policy makers to advance solutions to surmount these challenges and accelerate the pace at which innovations are safely developed and reach people in need.

What were some of the most exciting developments in global health R&D in 2016, and what does 2017 hold in terms of innovation?

There were many exciting developments in global health research in 2016. The year ended on a high note with the announcement that the rVSV-ZEBOV Ebola vaccine candidate proved 100 per cent effective in preventing Ebola in a large clinical trial in Guinea, offering promise that we will soon have an approved vaccine to prevent a future epidemic of the disease. In 2016 we also saw the launch of the world's first tuberculosis medicines designed and dosed specifically for children – an innovation that will transform the care of children with the disease. Already enough orders have been placed to treat half the childhood tuberculosis cases worldwide, and the product has been adopted in more than 30 countries.

In malaria, 2016 brought a commitment by the World Health Organization (WHO) to roll out pilot implementation of the world's first malaria vaccine in several communities in sub-Saharan Africa, and in HIV/AIDS prevention, phase 3 trials of a vaginal ring containing the antiretroviral drug dapivirine showed the tool to be effective in reducing HIV infection, meaning women may soon have a new, self-directed tool to protect themselves from HIV. Last year, we also saw the advancement of several novel strategies to combat mosquito-borne diseases, including genetically-modified mosquitoes; and witnessed scientists mobilise quickly to increase our understanding of the Zika virus and advance a robust pipeline of new tools to prevent, detect and treat the virus. More than 35 Zika vaccine candidates are now under development and researchers are screening novel compounds and evaluating existing drugs to advance treatment research.

As 2017 begins, we look forward to building on these accomplishments. This includes advancing regulatory approval or further rollout of these technologies, as well as continued progress in promising research underway to develop new vaccines, drugs, and diagnostics against drug-resistant tuberculosis, malaria, neglected tropical diseases, and other diseases and conditions of poverty. We will also be closely watching the progress of the Coalition for Epidemic Preparedness Innovations (CEPI), a fund recently launched to develop and test vaccines against the likely pandemics of the future, and the potential of its work – and of RNA-based vaccine research more broadly – to enable more rapid development of vaccines against endemic and emerging viral diseases.