

## Testimony of Dr. Raj Panjabi on behalf of Last Mile Health before the Senate Foreign Relations Subcommittee on Africa and Global Health Policy

### “A Progress Report on the West Africa Ebola Epidemic”

April 7, 2016

Chairman Flake, Ranking Member Markey and other distinguished members of the committee, thank you for inviting me to testify. We are grateful to members of this Committee not only for the resources you've mobilized in the fight against Ebola in West Africa, but also for your personal leadership. I just returned from caring for patients alongside community health workers and nurses in rural Liberia and my colleagues there have not forgotten that members of this Committee visited them on the frontlines of the Ebola epidemic while it was still very active.<sup>1</sup>

Today, I want to speak about the power of those local health workers. As you know, over 11,000 people and over 500 of my fellow health workers – nearly all West African – have lost their lives in this fight.<sup>2,3</sup> I want to dedicate my testimony in honor of their sacrifices and the Americans who stood by their side. I will make the case that investing in Liberian health workers – especially in remote rural areas – was one of the most effective measures taken by the United States in responding to Ebola. And I will present the case that long-term investments in rural health workers are more important now than ever to respond to public health threats and build resilient, sustainable health systems.

Liberian health workers have shaped my life. As CEO of Last Mile Health and a physician and teacher from Harvard, I've had the privilege of working with my colleagues on the ground in Liberia for a decade to train and employ hundreds of community health workers to serve Liberia's most remote communities.<sup>4</sup> But their mark on my life runs deeper than that. Today, I am a proud American citizen and I was fortunate to be born in Liberia where Liberian midwives helped my mother bring me into this world.

I know first-hand how dire conditions can get in the absence of health workers. When I was 9 years old, Liberia erupted in civil war. I was one of the lucky few. My family was evacuated and eventually resettled in America. Here in America, I went from having my hopes crushed in a war to pursuing my dream of attending medical school. But I could not forget where I came from. So in 2005, I returned to Liberia as a medical student, to help serve the people I had left behind. What I found was utter destruction. After 14 years of civil war, Liberia was left with just 51 doctors to serve a country of over 4 million people.<sup>5</sup> To put that in perspective, imagine the entire city of Washington, DC, having only 8 doctors available to care for it.<sup>6</sup> If you fell sick in the city you might stand a chance, but if you fell sick in remote villages you could die anonymously. It was in response to this massive shortage of rural health workers that my colleagues and I began our work at Last Mile Health.

What does this lack of health workers in remote areas have to do with the Ebola outbreak? While Ebola infections transmit primarily from person to person, Ebola and 75% of emerging infectious diseases first enter human populations from animals – that is they have a “zoonotic origin”.<sup>7</sup> Ebola and other epidemics with a zoonotic origin – like HIV/AIDS -- often first emerge in the world's most remote communities. We all know that “patient zero”, two-year old Emile from rural Guinea likely first fell sick in this way with Ebola and died in remote

communities in the rainforest borderlands connecting Guinea, Sierra Leone and Liberia.<sup>8</sup> In large part due to the lack of trained and equipped health workers in rural areas, it took three months before an Ebola outbreak was identified. This time lapse allowed the epidemic to spread and as we know, it eventually reached 10 countries, including this one.

Paradoxically, the hardest-to-reach communities are also where zoonotic infections – amongst other diseases – are the hardest to defeat. The problem is that remote communities, not unlike the most rural reaches of your own states, face a triple bias. The public sector, which favors areas that are easier to reach to maximize limited resources, is often unable to prioritize remote populations. The private sector, which favors areas with high concentrations of customers, doesn't see market potential. The social sector, which favors reaching more people in fewer areas at less cost, deems it too expensive to serve them.

The good news is U.S. investments in local health workers in remote communities can have dramatic results. A little over a year ago, I stood in a mud-walled building in one of these isolated, hard-to-reach rainforest communities. I was there to help train a group of Liberian health workers in an area called Rivercess. Nearby, an outbreak had erupted in a village days from the nearest hospital and cut-off from roads, electricity and phones. A young woman there had just died of Ebola, and so had over a dozen people who attended her funeral.<sup>9</sup> We partnered with a coalition of US agencies, other NGOs, to support the Liberian Government to train and equip brave local health workers to respond.

Investments like these, complemented investments in Ebola Treatment Units, and were made across Liberia, with the support of the USAID, NIH, CDC, HHS, the DOD and other agencies. With that and other international support, the Government of Liberia and its partners trained and equipped thousands of Liberian health workers in remote areas. They included lab technicians like David Sumo, a 24-year-old who drove a motorbike more than six hours over mud tracks in the rainforest to collect blood samples from the hundreds of people at risk. Nurses like Alice Johnson distributed digital thermometers, masks, gloves and gowns to clinics to ensure infection prevention and control measures were in place. And community health workers like Zarkpa Yeoh ensured no child with malaria in her village missed a day of treatment even as the rest of the country's health system was collapsing. It's these rural health workers – alongside American health workers – who have helped hunt down Ebola, who are best positioned to help prevent flare-ups, and who can help rebuild a health system led by Liberians themselves.

Last week, the World Health Organization declared the West Africa Ebola epidemic no longer an international public health emergency. But, let us make no mistake. The response is not over. The Ebola threat remains real and it has been persistent. Counter to conventional wisdom, this epidemic isn't West Africa's first encounter with Ebola. Medical studies document antibodies to Ebola in the region as far back the late 1970s – suggesting the virus has been present and has gone undetected in remote villages in West Africa at least since then.<sup>10</sup> Infectious diseases can also act with speed. We have seen already seen flare-ups of Ebola and other outbreaks. In the last week alone, new Ebola cases and deaths occurred in both Liberia and rural Guinea.<sup>12</sup> Ebola shut down other health services and we've seen an increase in other infectious diseases like measles, malaria and pertussis, as well as child and maternal deaths. We must sustain a defense that exceeds the persistence and speed of these threats. We must help West Africa maintain a

high level of capacity to rapidly prevent, detect and respond to flare-ups of Ebola and other public health crises.

Ebola has taught us what works best in an emergency is not an emergency system – it is an everyday system that is robust, resilient, and functioning before the crisis begins.<sup>13</sup> If our collective goal, looking forward, is to work with Liberians and other affected countries to build such health systems – then we must continue to make smart investments. We must continue to invest in people. We must invest in Liberia’s rural health workforce. We’ve heard this call echoed by Liberia’s leaders. Mr. Chairman, at another hearing on Ebola hosted by this committee only 15 months ago in December 2014 in this very room Committee members asked Liberia’s President Ellen Johnson Sirleaf about her priorities. She responded clearly, “we seek to build capacity at all levels, especially at the lower levels of community health care workers.”<sup>14</sup>

Her Excellency’s Government has followed through on this vision. The Government is working to launch a revolutionary National Health Workforce Program. This program, once fully financed, will train hundreds of Liberian doctors and nurses in line with President Sirleaf’s priorities, employ and equip over 4,000 community health workers nationally. This rural community health workforce will bring disease surveillance for Ebola and other threats each and every at-risk remote corner of Liberia. They are a frontline defense that can stop the next outbreak from becoming an epidemic. It will also build health systems by extending health care to the over 1 million rural Liberians who’ve never had health care before. President Sirleaf has already called for 2000 rural community health workers to be deployed by the end of next year.

Investing in training, equipping and paying rural community health workers not only saves lives in remote areas, but they are also a great economic bet. Recent reports show that by creating jobs, providing “insurance” for countries against catastrophes like Ebola, and by extending productive life, rural community health workforce investments in can yield an economic return of up to \$10 for every \$1 spent.<sup>15</sup>

Of course, rural community health workers are not a panacea. Investments in these workers must be complemented with broader investments in publicly financed health systems that include well equipped clinics and hospitals, robust laboratories and supply chain systems. We must target these investments not just in cities, but also in rural areas. And these investments must align with and reinforce government-led plans. One example includes the recent re-signing of the results-based five-year Fixed Amount Reimbursement Agreement (FARA) between USAID and the Liberian Government that invests directly in the Government’s National Health Plan.<sup>17</sup> Such mechanisms should be expanded because they directly build country capacity and help improve the effectiveness and sustainability of US foreign assistance to Liberia.<sup>18</sup>

As we look forward, we must not forget that illness is universal but access to care is not, and as Ebola has taught us, this places all of us at greater risk. The cost of inaction on closing this access gap is greater than the cost of action. Mr. Chairman, as Liberians and Americans have shown, we are not defined by the crises that strike our lives. We are defined by how we respond. Our response is not over. We must demand a health worker for everyone, everywhere. That is the only effective response to the Ebola crisis – and the everyday crisis of premature death.

## References

1. 2014 West Africa Ebola Outbreak - Case Counts - Previous Case Counts. (2016, March 31). Retrieved April 5, 2016, from <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/previous-case-counts.html>
2. 2014 Ebola Outbreak in West Africa - Case Counts. (2016, March 31). Retrieved April 5, 2016, from <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html>
3. Ebola in Africa: The end of a tragedy? (2016, January 14). Retrieved April 5, 2016, from <http://www.economist.com/blogs/graphicdetail/2016/01/daily-chart-12>
4. Our Story. (n.d.). Retrieved April 5, 2016, from <http://lastmilehealth.org/our-history/>
5. Tankwanchi, A., Özden, Ç., & Vermund, S. (2013). Physician Emigration from Sub-Saharan Africa to the United States: Analysis of the 2011 AMA Physician Masterfile. *Plos Med*, 10(9), e1001513. <http://dx.doi.org/10.1371/journal.pmed.1001513>
6. Population Demographics for Washington DC 2016 and 2015. (n.d.). Retrieved April 5, 2016, from <https://suburbanstats.org/population/how-many-people-live-in-washington-dc>
7. Taylor, L., Latham, S., & Woolhouse, M. (2001). Risk factors for human disease emergence. *Philosophical Transactions Of The Royal Society B: Biological Sciences*, 356(1411), 983-989. <http://dx.doi.org/10.1098/rstb.2001.0888>
8. Grady, D., & Fink, S. (2014, August 9). Tracing Ebola's Breakout to an African 2-Year-Old. Retrieved April 5, 2016, from <http://www.nytimes.com/2014/08/10/world/africa/tracing-ebolas-breakout-to-an-african-2-year-old.html>
9. Hagan, J. (2015, February 27). Implementation of Ebola Case-Finding Using a Village Chieftaincy Taskforce in a Remote Outbreak — Liberia, 2014. Retrieved April 5, 2016, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6407a5.htm>
10. Dahn, B., Nutt, C., & Musa, V. (2015). *Yes, We Were Warned About Ebola*. *Nytimes.com*. Retrieved 5 April 2016, from <http://www.nytimes.com/2015/04/08/opinion/yes-we-were-warned-about-ebola.html>
11. *New positive case of Ebola virus disease confirmed in Liberia*. (2016). *World Health Organization*. Retrieved 5 April 2016, from <http://www.who.int/mediacentre/news/statements/2016/liberia-ebola/en/>
12. Death toll rises to 7 in Guinea Ebola outbreak. (2016). *Yahoo.com*. Retrieved 6 April 2016, from <https://www.yahoo.com/news/death-toll-rises-7-guinea-ebola-outbreak-192208563.html>

13. *Building Capacity: Strengthening Health Systems*. (2015). *Global Philanthropy Forum*. Retrieved 5 April 2016, from <https://philanthropyforum.org/issues/health-nutrition/videos/building-capacity-strengthening-health-systems?wpfpaction=add&postid=19353>
14. Senate Foreign Relations Sub-Committee on African Affairs. (2014). Remarks by H.E. Ellen Johnson Sirleaf.
15. *Strengthening Primary Health Care through Community Health Workers: through Community Health Workers: Investment Case and Financing Recommendations*. (2015). Retrieved from <http://www.healthenvoy.org/wp-content/uploads/2014/05/CHW-Financing-FINAL-July-15-2015.pdf>
16. Frist, B. (2014, December 12). The best way to spend the \$6.2 billion Congress set aside to fight Ebola. Retrieved April 5, 2016, from <http://blogs.reuters.com/great-debate/2014/12/12/the-best-way-to-spend-the-6-2-billion-congress-set-aside-to-fight-ebola/>
17. Tweh, E. (2016, February 17). GOL, USAID SIGN US\$59.1M FARA AGREEMENT. Retrieved April 5, 2016, from <http://www.thenewdawnliberia.com/news/9576-gol-usaid-sign-us-59-1m-fara-agreement>
18. Glassman, A. (2012, May 5). Results-Based Aid in Liberia: USAID Forward (and one step back). Retrieved April 5, 2016, from <http://www.cgdev.org/blog/results-based-aid-liberia-usaid-forward-and-one-step-back>

## ANNEX

## THE BLOG

## New Report Shows That Investing in Community Health Workers Is Essential for Improving Health, Strengthening Economy, and Preventing the Next Ebola

🕒 07/20/2015 12:32 am ET | Updated Jul 20, 2015



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*"CHWs play the most important and effective role in our fight against disease; it is they who have reached the most vulnerable, they who have been able to be the contract tracer, they who have been able without much training to take the risk to go out into the community and bring care. We need to urgently invest in the training and building of capacity of healthcare workers at the community level." — President Ellen Johnson Sirleaf of Liberia at the Third International Financing for Development Conference in Addis Ababa on July 13, 2015*

In May, the World Health Organization declared Liberia "Ebola free" after forty-two days without new cases. While this was a remarkable milestone, none of us can forget that Ebola killed 4,800 people in Liberia and has already left more than 11,000 dead across West Africa. While the fight against Ebola continues in Liberia and neighboring Sierra Leone and Guinea, one vital measure for epidemic preparedness has emerged: a robust community health system. As President Ellen Johnson Sirleaf stated on Monday at the UN's Third International Financing for Development Conference: "We need to urgently invest in healthcare workers at the community level."

For the past year, we have been asking ourselves how the Ebola outbreak spread so quickly and what steps should be taken to prevent such future disasters. A year after the epidemic took hold, we know that stronger, integrated community-based delivery systems are necessary to help prevent such outbreaks and support progress against the top killers of women and children - especially malaria, pneumonia, and diarrhea. At the core of such delivery systems are highly-trained, supervised, equipped and paid professional Community Health Workers (CHWs), who work in teams with other primary health workers (e.g. nurses) to extend care to the most vulnerable.

Unfortunately, financing for community health systems is relatively low compared to other health system areas and to priority diseases. Consequently, countries struggle to raise the funding necessary to train, supervise, and pay CHWs. Today, there is an estimated shortage of more than 700,000 community health workers across sub-Saharan Africa and it will require at least \$3 billion each year to address this gap. In Ebola's deadly wake, a number of leaders from African countries and the global health community came together to explore how to address this funding problem. We released our initial thinking on Monday at the Financing for Development Conference in Addis Ababa through a report titled, "[Strengthening Primary Health Care through Community Health Workers: Investment Case and Financing Recommendations.](#)" The report calls for urgent action by all global stakeholders, including African governments, major funders, and our partners to address funding challenges of CHWs, and provides the following key findings:

- Supporting Community Health Workers is a game-changing investment: CHWs are critical for increasing access to health care and, if scaled up, could save up to 3 million more lives each year. They are also a great economic bet, returning up to \$10 for every \$1 spent through productivity gains from a healthier population, from the 'insurance' they provide against catastrophes like Ebola, and from expanding employment opportunities.
- Not all Community Health Worker systems are created equal: What we need are highly trained and skilled community health workers integrated into the primary health system. While each national context will be different, when building CHW programs policy makers should focus on core factors such as measurement and management of community health program performance, integration with the rest of the primary health system, leadership from within Ministries of Health, and community engagement in program design. It's also important that CHWs not be construed as 'standalone' agents of change, but instead are effectively linked to broader teams of clinic-based health workers.
- Countries need to be proactive in developing a financing pathway: When developing a CHW program, countries need to take the initiative to determine program scale, cost the plan, set funding targets and identify specific financing mechanisms to reach targets. Countries are used to doing this for other disease areas and should apply the same methodology to community health. Support from international donors through mechanisms like the World Bank's recently launched Global Financing Facility, will create new avenues for long-term country-led investments for CHW programs, but additional start-up funding remains vital.

In addition to these findings, we went on to make a set of recommendations to national governments, donors, and the broader community.

- First, we encouraged governments in sub-Saharan Africa to prioritize CHW programs for investment and to create teams to focus on community health financing;
- Second, we asked international donors and funders to make more grants and low-cost financing available to countries wishing to build CHW programs;
- Next, we urged funders that currently support specific diseases to make more of that funding available to support CHW programs, since CHWs are absolutely essential for diagnosing and treating diseases like malaria, HIV, and TB and preventing epidemics;
- Finally, we encouraged the broader health community to consider establishing teams to work alongside existing initiatives to assess available financing options and develop metrics and scorecards to track progress in community health.

On the last day of June, when the body of a dead seventeen year old boy tested positive for Ebola, Liberia reported its first new case since it was declared “Ebola-free” in May. While the country now has much stronger health capabilities than it did at the start of the Ebola epidemic, this sad death is a clear reminder that we must remain vigilant and move urgently to make much larger investments in community health systems. Such investments will not only help prevent the resurgence of Ebola and achieve our global health goals, but may also help prevent the next epidemic. This is crucial as the World Bank estimates that a severe pandemic flu is ‘virtually inevitable’ and could cost the global economy up to \$3 trillion. The time for action is now.

*Jeff Walker, Vice Chair of the Office of the UN Secretary General’s Envoy for Health Finance and for Malaria, and Rajesh Panjabi, CEO of Last Mile Health*