

Co-Impact Systems Response Fund

We have been working closely with our Program Partners to determine what their needs are in the near term as they adapt to the current situation. Two of the initiatives we support that are focused on health systems – **Liberia's National Community Health Assistant Program (LNCHAP)** and **Project ECHO** – have been asked by relevant governments to **take a leading role in responding to COVID-19**. Additional support is therefore crucial at this time (see details below on their respective responses).



Photo courtesy of Last Mile Health



Photo courtesy of Project ECHO

THE NEED

The **speed of scale up now needed goes beyond what was envisioned** in Co-Impact's systems change grants. **Additional flexible support** is required to respond to the crisis. Neither team has the capacity to focus on fundraising at present, so we are offering the option to **channel funds through Co-Impact**, for funders who are able to contribute a minimum of US \$50,000.

The Systems Response Fund focuses in a surgical way on the elements that are the most critical in a system. For this, **US\$50K to US\$5M is meaningful and can get innovation and support to the key reformers, leaders, and organizations on the frontline.**

HOW YOU CAN SUPPORT

Please reach out to us to support **Last Mile Health for LNCHAP and/or the University of New Mexico for Project ECHO**. In line with our overall approach, we appreciate your understanding that Program Partners need to focus on their work, so **reporting will be on the overall work to address COVID-19**, not on the use of your specific donation. We also appreciate that you will not insist on additional requirements from the respective Program Partners.

To ensure a streamlined approach, we can share a **simple funding agreement**, and ask that funds be provided by electronic transfer (tax deductible options in many countries are available). Co-Impact will cover its administrative costs for your donation. Your donation **will make such a difference** to their work and provide **a much-needed morale boost**.

Last Mile Health's Response to COVID-19 *Updated March 23, 2020*

Context

As of March 23, 2020, over 338,000 cases of COVID-19 have been reported worldwide—including in 32 African countries. Patients in countries with limited preparedness and response resources are particularly vulnerable to COVID-19, and sharp increases in COVID-19 caseloads may overwhelm health systems in countries already facing shortages of nurses, physicians, and other health workers. In some cases, health workforce availability is less than 10% of what is estimated to be needed to deliver essential primary health care services. Given these shortages, the pandemic's effects on countries with weaker health systems, including in Liberia and other parts of Africa, will reach beyond COVID-19 related deaths. Families living in remote communities, as well as other vulnerable populations, face the potential of exacerbated inequities in access to consistent primary healthcare services, access to specialty clinics or tertiary care for acute cases, and economic hardship.

Countries like the United States reported 35 COVID-19 cases on February 23rd and 31,573 cases on March 23rd, according to WHO Situation Reports. Strategies to rapidly expand healthcare teams and to develop innovative ways to deliver preventive, diagnostic, and management services for COVID-19 are therefore urgently needed. Governments can mobilize resources to rapidly expand healthcare teams for COVID-19 preparedness through integrating **prevention, detection, and response interventions** into existing community health workforces. Community health workers (CHWs) and their supervisors have a critical role to play in responding to the pandemic while also ensuring lifesaving primary healthcare continues to be delivered - particularly in rural remote and vulnerable communities.

Last Mile Health's Response

In partnership with Ministries of Health, Last Mile Health (LMH) is developing and implementing responsive and proactive activities to support and enhance existing healthcare delivery systems, including procurement of critical equipment, and promote evidence-based public health strategies for mitigation and containment. Specifically, LMH is: advising government partners on evidence-based public health strategies for engaging and protecting community health workers in prevention, detection, and response; designing and implementing training for CHWs and their supervisors and teams on preventing, detecting, and responding to cases; digitizing and disseminating content related to COVID-19 globally via the Community Health Academy platform; and participating in global advocacy and communications efforts to promote strong, resilient health systems that can respond to such a pandemic.

The following guiding principles underlie LMH's activities as objectives for programmatic implementation:

1. Ensure continuity of essential primary health care services
2. Limit health worker infection
3. Eliminate transmission from known cases
4. Support and monitor mildly sick patients in home isolation
5. Safely refer acute cases
6. Demonstrate what proactive action by community health teams can achieve

Supporting Government-led Response and Designing CHW Training

In Liberia and Malawi, this means supporting the Ministry of Health to mobilize a response and equip up to 4,000 health workers with essential training and supplies (see Appendix 1).

Prevent

1. Support to the Ministry of Health in Liberia and potentially Malawi to forecast and procure personal protective equipment (PPE) and adapting protocols to ensure continued service delivery.
2. Distribute PPE to the community and facility based health workforce.
3. Develop COVID-19 training materials and integrate into the Community Events-Based Surveillance guidelines.
4. Strengthen community event-based surveillance or similar data systems.
5. Protect continuity of primary health care by stabilizing health worker livelihoods, addressing programmatic gaps, and financing commodities and incentives.

Detect

1. Train frontline CHWs and facility based staff to safely identify signs and symptoms.
2. Support frontline and CHWs to conduct household level surveillance and contact tracing.
3. Procure, deliver, and distribute testing and contact tracing supplies.

Respond

1. Support and monitor mildly sick patients to home isolation.
2. Safely refer acute patients for treatment.
3. Encourage home-based care and self-isolation of patients.
4. Provide food, social, and medical support to isolating patients.
5. Plan for training and procurement to test, treat, and refer COVID-19 patients.

Digitizing and Disseminating Training Content

Last Mile Health's Community Health Academy is part of a consortium of organizations with expertise in pandemic response, community health systems strengthening, digital health, online training and multimedia content development that plans to collaborate to tackle the Covid-19 pandemic by improving prevention, detection, diagnosis and care for individuals and their families across the world. The consortium focused on continuing clinical education currently includes CORE Group, Medical Aid Films, Tech Change, Translators without Borders (TWB), and The Community Health Academy. These efforts aim to complement Last Mile Health's engagement of the Ministry of Health to support the digitization of training curriculum that could be used to facilitate a COVID-19 response.

Immediate Financing Needs - US\$ 10MM

Support to the Government of Liberia (\$5MM) and Malawi's response (\$2MM)

- Training and equipping community health workers, coordination meetings, support of health worker movement, procurement, etc. See table for more information.

Support to the Government of Ethiopia (\$3MM)

- Programming to digitize COVID-19 training materials, procure additional smartphones, etc.

Table 1. **Community Health Worker Roles in the COVID-19 Epidemic**

Community Health Worker Roles in the COVID-19 Epidemic	
Prevent	Educate communities regarding signs, symptoms, and transmission routes, as well as promoting personal preventive measures such as social distancing, hand hygiene, coughing/sneezing into elbows, and WASH interventions.
	Organize hand hygiene stations in communities and health facilities.
	Support, lead or reinforce community and facility-based infection prevention and control measures, such as construction of triage areas, use of personal protective equipment (eg face masks, gloves, gowns).
	Support preparation of health systems and communities for the eventual introduction of COVID-19 vaccines in development, including outreach to high-risk groups.
Detect	With supervision from nurses, identify signs and symptoms in community members, support safe collection in communities and health facilities of samples and rapid transport to laboratories for analysis, thus reducing risks of nosocomial transmission.
Respond	Communicate rapidly and effectively to residents.

	Support self-isolation and monitor patients in the community while ensuring delivery of food, social, and medical support.
	Monitor patients for clinical deterioration and support rapid referral of individuals who require hospitalization, reinforcing links between the health system and communities.
	Support contact tracing, symptom reporting, and monitoring of contacts of COVID-19 patients to ensure access to testing and treatment for those who develop signs and symptoms.
	Implement or support disinfection of high-risk surfaces in communities using appropriate infection prevention and control supplies and procedures.
	Sustain routine primary healthcare services, e.g. vaccinations and integrated community case management of young children with malaria, pneumonia or diarrhea.

Additional COVID-19 articles (co)authored by the LMH team:

- [Five Key Lessons from Ebola That Can Help Us Win Against Coronavirus, Everywhere](#)
- [What If Americans Unemployed By Coronavirus Were Hired to Fight It?](#)
- [Prevent, Detect, Respond: Rapidly expanding healthcare teams through community health workers in the fight against COVID-19](#)

Project ECHO® (Extension for Community Health Outcomes)

Leveraging Project ECHO's global networks for COVID-19 preparedness and response

Overview

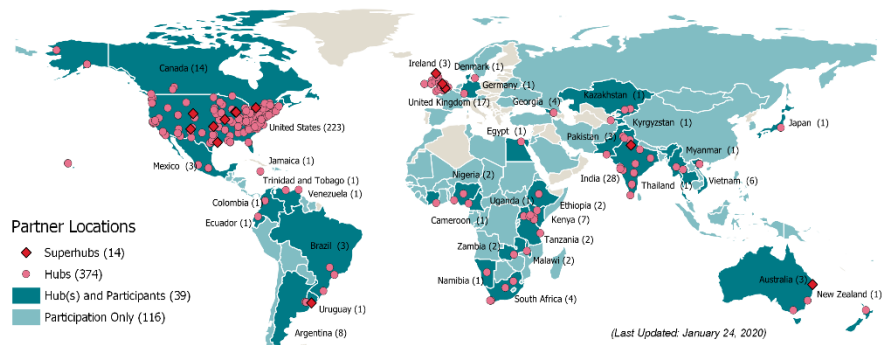
As the world responds to the rapidly evolving COVID-19 pandemic, Project ECHO's global partner network is uniquely positioned to provide a timely and effective platform to support and scale efforts to prepare for and respond to the spread of the virus, especially in vulnerable countries and regions. The ECHO Institute proposes to coordinate and support the rapid development and implementation of ECHO telementoring programs worldwide, leveraging our existing network of ECHO hubs to rapidly disseminate information on COVID-19 preparedness and response in collaboration with local experts and community stakeholders.

In partnership with Co-Impact, and working with our ECHO hub partners, subject matter experts from the U.S. Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and in-country/regional medical/professional associations, we will

develop a learning curriculum of best practices for prevention and treatment of the virus, adapt it to the ECHO model, and then train and support existing and new ECHO hub partners to launch and run ECHO programs that train and mentor local providers in the curriculum. We will leverage our existing domestic (US) and international state and national government partnerships to significantly expand existing ECHO networks, ensuring widespread participation in COVID-19 ECHO programs. Together we can train and mentor a minimum of 100,000 healthcare providers serving communities and populations most at risk from the virus.

Beyond the immediate, urgent global need for rapid dissemination of information and best practices for COVID-19 preparedness and response, this project will serve as a learning laboratory to better understand the role the ECHO model can play to disseminate and implement best practices for communities responding to an epidemic or other public health emergency. Throughout this work, we will also focus on understanding both barriers to and effective methods for the deployment of ECHO as an emergency response system across diverse countries and contexts, particularly in the context of government partnerships for response efforts in the world's most resource-constrained areas.

ECHO Hubs and Superhubs

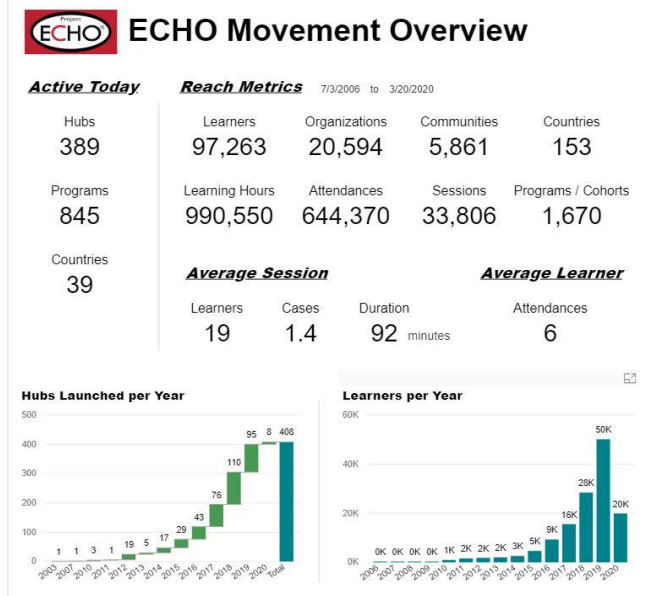


Project ECHO® (Extension for Community Health Outcomes)

Project ECHO

Project ECHO improves access to quality medical care and disseminates best practices to clinicians and other healthcare providers in rural and underserved communities, using telementoring to increase workforce capacity and build extensive networks and communities of practice around the world. Project ECHO has both the evidence of impact and the global scale necessary to catalyze a rapid, effective, worldwide response to the COVID-19 pandemic. Quality evaluations of ECHO programs have shown that ECHO-trained providers can achieve patient outcomes that are equal to those achieved by specialists^{1,2,3} and that the ECHO model is an effective intervention for building capacity to connect patients with life-saving new treatments.⁴ Over 225 peer-reviewed articles have demonstrated the ECHO model's effectiveness and impact on providers, patients, and systems.

Institutions and governments around the world recognize the ECHO model as a low-cost way to build the knowledge and capacity of local healthcare workforces rapidly, using frequent virtual, real-time interactions for ongoing training and telementoring. 389 ECHO hub partners in 39 countries currently operate 845 ECHO programs, some of which train participants in multiple countries. To date, ECHO programs have reached over 97,000 participant-learners across 153 countries.



The ECHO model

The ECHO model uses a “hub and spoke” structure in which interdisciplinary teams of experts based at a regional academic/medical center (the “hub”) use videoconferencing technology to engage with local healthcare workforces and other key stakeholders (the “spokes”) in ongoing knowledge-sharing, case-based learning, and telementoring. Hub and spokes learn from one another, as expert knowledge is refined and tested through local experience. Unlike other healthcare workforce “pipeline” training models where knowledge only flows one way, the ECHO model is a platform that allows all user-participants to co-create knowledge through group discussion, peer interaction, and engagement of local expertise so that all teach and all learn, and our collective understanding of how to disseminate and implement best practices across diverse economic and cultural contexts grows.

¹ Arora, S., Thornton, K., Murata, G., Deming, P., Kalishman, S., Dion, D... & Kistin, M. (2011). Outcomes of treatment for hepatitis C virus infection by primary care providers. *New England Journal of Medicine*, 364(23), 2199-2207.

² Paul, M., Davila Saad, A., Billings, J., Blecker, S., Bouchonville, M. F., & Berry, C. (2019). MON-190 Endo ECHO improves patient-reported measures of access to care, health care quality, self-care behaviors, and overall quality of life for patients with complex diabetes in medically underserved areas of New Mexico. *Journal of the Endocrine Society*, 3(Supplement_1), MON-190.

³ Arora, S. (2019). Project ECHO: democratising knowledge for the elimination of viral hepatitis. *The Lancet Gastroenterology & Hepatology*, 4(2), 91-93.

⁴ Dhiman, R. K., Grover, G. S., Premkumar, M., Taneja, S., Duseja, A., Rathi, S., & Satsangi, S. (2019). Direct-acting antiviral therapy is safe and effective in pediatric chronic hepatitis C: the public health perspective. *Journal of Pediatric Gastroenterology and Nutrition*, 68(1), 74-80.

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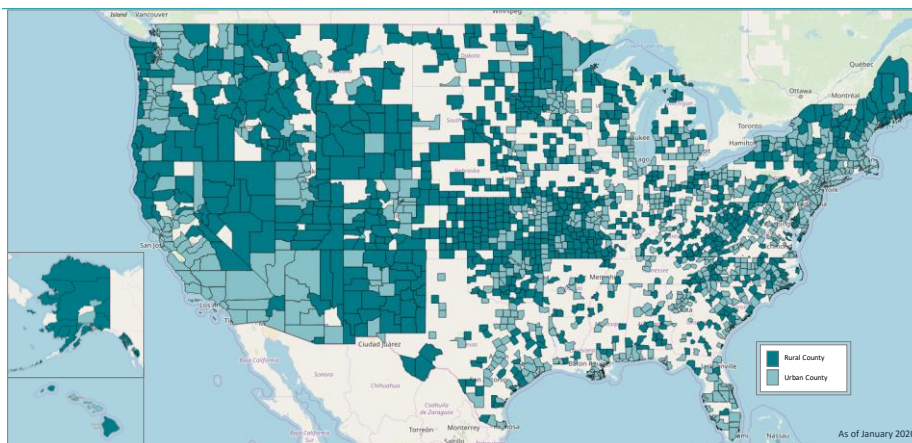
The ECHO Institute at the University of New Mexico Health Sciences Center provides training, technical assistance, and access to necessary software and other resources at no cost to global partner institutions. This policy reduces costs associated with ECHO program development and launch, and allows community stakeholders in resource-constrained settings to rapidly implement the ECHO model for their priority health challenges. In many lower- and middle-income countries, once an ECHO program is launched and running, state and national governments have committed funding to sustain it and expand to more ECHO programs after experiencing the ECHO model's effectiveness firsthand.

The power of the ECHO model lies in its adaptability to diverse cultural and geographical contexts and its facilitation of evidence-based information sharing and peer dialogue that is responsive to rapidly changing events, such as the current COVID-19 pandemic. Our experience and success in replicating the ECHO model around the world indicates that a coordinated, global COVID-19 response utilizing Project ECHO can save millions of lives.

Project ECHO in North America and in Europe

Since its inception, Project ECHO has aimed to address health inequities caused by lack of access to high-quality, specialized medical care in vast swaths of the United States. Rural health clinics, private

U.S. Counties with ECHO Participants



practices, and state and federal governments have partnered with the ECHO Institute to create ECHO programs addressing areas of pressing need for their communities. With support from federal and state policymakers, Project ECHO in the U.S. now encompasses 240 hubs offering over 562 programs to meet local needs, including infectious disease

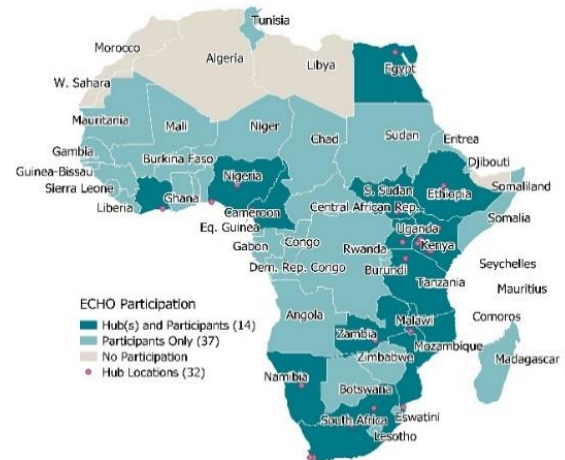
eradication, pediatric care, and the public health emergency represented by the opioid epidemic. In 2019 alone, more than 32,000 providers and other learners participated in ECHO programs. Through the national ECHO Acts of 2016 and 2019, federal support for the ECHO model is becoming embedded into the U.S. healthcare system. Mobilizing and expanding the reach of these committed hubs and spokes to respond to COVID-19 could significantly strengthen U.S. efforts to contain the spread of the virus, and increase the capacity of its domestic healthcare workforce to care for those infected.

In Canada, the government of Ontario supports ECHO programs in mental health and chronic pain. 17 hubs across the country operate 40 ECHO programs, and have reached close to 3,000 participants. Denmark, Germany, Ireland, and the United Kingdom also have significant ECHO programs and partnerships: 26 hubs operating 67 programs which to date have reached over 4,000 participants. The UK's National Health Service supports ECHO programs in the fields of palliative care and mental/behavioral health.

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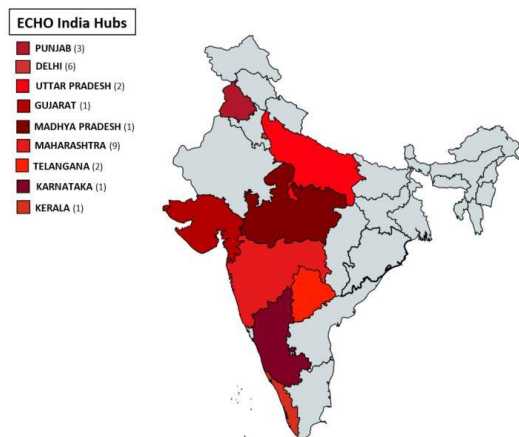
Project ECHO in Africa

Since 2015, Project ECHO has been connecting healthcare personnel across African countries and regions into communities of practice working together to solve public health challenges such as HIV, laboratory strengthening, tuberculosis, and epi-surveillance. The Africa CDC has created a network of ECHO programs to support health security and preparedness including IHR implementation, epidemic preparedness, cholera outbreaks, and Ebola response. Currently, 32 ECHO partner hubs in 14 African countries operate over 36 ECHO programs, training over 10,500 local healthcare personnel in 2019 alone. WHO AFRO has recently become a signed ECHO partner as well. For an effective regionwide COVID-19 response, we will leverage our existing partnerships and ECHO programs in African countries where it has been demonstrated that Project ECHO is both feasible and accepted by government, institutional, and participant stakeholders.



Project ECHO in India and Southeast Asia

Due to the work of the ECHO Institute and branch office ECHO India Trust since 2008, Project ECHO has a robust and growing presence across India, with 26 hub partners administering 54 ECHO programs training healthcare personnel in diverse focus areas such as HIV, TB, palliative care, cancer screening and treatment, HIV, ophthalmology, and behavioral health. In September 2019, the Indian national government's Ministry of Health and Family Welfare (MoHFW) signed an overarching memorandum of understanding with ECHO India that will enable national hospitals, programs, and institutes under the MoHFW to utilize the ECHO model to provide specialized training to medical officers, nurses, physicians, and support staff to achieve the goals outlined in Government of India's 2017 National Health Policy.



Leveraging Project ECHO's current presence across India by significantly expanding existing networks of institutional, state, and national government partnerships would ensure that India implements its COVID-19 response activities rapidly and effectively across both urban and rural areas, and that COVID-19 response is quickly disseminated to government and institutional partners across the South East Asia region. The ECHO model will catalyze information sharing and mass trainings necessary for keeping India's 1.3 billion population safe, which will have significant impact across the region. The Indian Council of Medical Research is currently collaborating with regional colleagues to provide technical assistance to China and other countries

like Bhutan and Afghanistan that lack basic laboratory infrastructure and material resources for adequately testing clinical samples. Existing ECHO networks across India are well positioned to train members of the healthcare workforce in other countries in the region, rapidly increasing capacity to

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respond to and contain the virus, with the lasting effect of stronger laboratory systems and adoption of medical best practices that endures beyond the end of the pandemic.

Current ECHO initiatives for COVID-19 preparedness/response



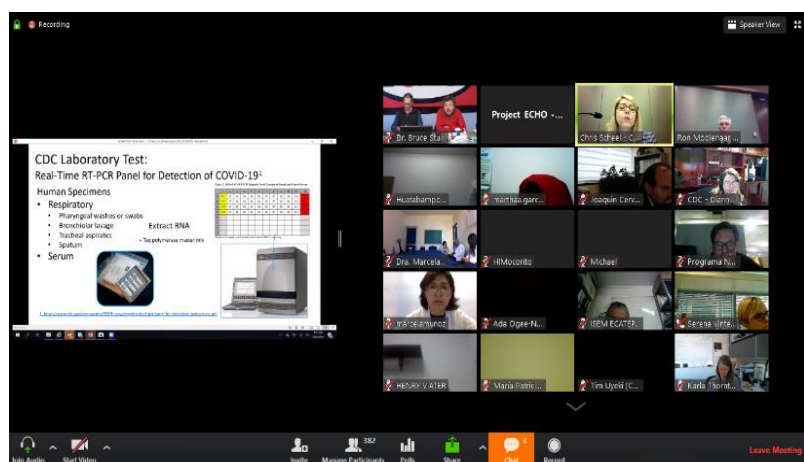
Throughout the ECHO movement, our partners in places as diverse as Zambia, Australia, the UK, and the U.S. are including didactics and discussion on COVID-19 response as topics in their existing ECHO programs, and launching new ongoing ECHO programs dedicated entirely to COVID-19 training and telementoring.

Over the past two months, our domestic and international ECHO partners have also developed and conducted special COVID-19-specific ECHO sessions utilizing existing ECHO networks to train thousands of provider participants. On February

2, Việt Nam's National Children's Hospital and National Lung Hospital used their ECHO networks to train 12,000 healthcare professionals at 257 spokes in 29 of the country's 64 provinces. In early March, Namibia's Ministry of Health and Social Services utilized its HIV ECHO network for a special presentation on COVID-19 to healthcare workers at over 40 sites around the country. Across India, special sessions by ECHO state and national government partner institutions in Gujarat, Tamil Nadu, Delhi, Punjab, and Andhra Pradesh have already reached over 700 providers across India's healthcare spectrum: doctors, ASHA workers, nurses, district medical officers, and others.

Here at the ECHO Institute in Albuquerque, in addition to providing support to our international partners with their COVID-19 response efforts, we have refocused all of our own ongoing disease-specific New Mexico ECHO programs to COVID-19 response, reaching hundreds of providers around the state each week. We are also launching additional ongoing NM ECHO programs for ventilator training, hospital preparedness, and

outpatient/community preparedness. We have held special COVID-19 ECHO sessions in partnership with the U.S. Indian Health Services, the New Mexico Departments of Health and Health and Human Services (over 1000 participants) and the U.S. Department of Defense and CDC's COVID-19 International Task Force (200 participants from over 30 countries). The U.S.-Mexico Binational TB ECHO, run by the ECHO Institute and supported by the U.S. Department of Health and Human Services' Office of Global Affairs and the CDC's Division of Global Migration and Quarantine, conducted a special bilingual COVID-19 session with over 1000 participants from 20 countries. With our USAID partners in Africa, we



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conducted a special session with 400 participants from 51 countries. We will be running a COVID-19 session with our USAID Southeast Asia partners later this week, along with a session in partnership with the U.S. Assistant Secretary for Preparedness and Response. Currently 1100 participants have signed up for this session, from every state in the U.S. and over 30 other countries.

Expanding access to COVID-19 training around the world

While we are inspired by the ways in which our partners have turned immediately to their existing ECHO networks as a crucial part of their urgent public health emergency response, demand for COVID-19 training and telementoring through the ECHO model has already far exceeded their existing capacity, and the capacity of the ECHO Institute to support them and to mount our own response. As the staggering participant turnout for special COVID-19 ECHO sessions demonstrates, there is urgent need for the kind of responsive, accessible COVID-19 preparedness and response training that the ECHO model enables.



To meet this demand, we propose to rapidly and significantly expand existing global ECHO networks and partnerships for use of the ECHO model to implement regional and national COVID-19 emergency preparedness and response initiatives. Project ECHO was designed to bring best practice healthcare to underserved areas everywhere in the world, from rural New Mexico towns to villages in India and remote African communities. Most of our current hub partners operate ECHO programs that serve regions identified as high-risk for importation of COVID-19. In every area where ECHO is active, we have built significant presence through local and government partnerships. The ECHO model is known, trusted, and proven, and the ECHO Institute has already achieved buy-in from community institutions, government agencies, and participants. We believe that with sufficient resources, Project ECHO can become the basis for a sustainable, global effort to combat the virus at all levels of the world's healthcare systems.

We will work with the CDC and the WHO – including WHO regional offices for Africa and Southeast Asia – and other key local and state/national government stakeholders to adapt existing and emerging clinical guidance on prevention, diagnosis, and treatment of COVID-19 to the ECHO model and to country- and region-specific contexts. COVID-19 ECHO programs, including learning resources, will then be implemented to support new and current ECHO partners in the expansion of their existing work training healthcare providers on COVID-19 using ECHO programs.

The ECHO Institute team will conduct trainings on using the ECHO model and provide ongoing support for launch and implementation of COVID-19 ECHO programs focused on training community healthcare professionals in the field on diagnosis, evaluation, and treatment of the disease, on workforce safety protocols, and triage protocol. These ECHO programs will also train hospital-based physicians on

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management of critically ill patients and on hospital systems and processes for containing this highly-contagious disease. In addition, we will offer the ECHO model to every country and region's national governments as a means for effective coordination between government agencies, local public health organizations, diagnostic laboratories, physicians' organizations, and other stakeholders in the response effort. Should the epidemic significantly increase, we would also expand training and support for COVID-19 ECHO programs to train school personnel, first responders, community business organizations, and others.

US\$10 million in funding for this critical work will allow the ECHO Institute to ramp up our capacity to develop, launch, coordinate, and support a global COVID-19 response effort across our partner networks by:

- Allowing the ECHO Institute to cover the costs of diverting personnel from existing work to focus on this response
- Allowing the ECHO Institute to rapidly hire and train additional staff to provide increased capacity for the training and support that our hub partners so desperately need
- Allowing the ECHO Institute to quickly hire and train additional project management and support staff to support our replication and project teams as they manage exponential demand for the ECHO model, and to provide rapid, effective coordination across the global ECHO movement
- Allowing the ECHO Institute to engage with communications and policy consultants to raise awareness and stakeholder buy-in for COVID-19 ECHO programs
- Ensuring that the ECHO Institute can engage appropriate subject-matter experts from diverse countries and regions, for culturally-conscious development of COVID-19 training and curricula
- Providing the ECHO Institute with the resources and staffing needed to amplify its online/digital infrastructure to develop and implement virtual trainings and ensure that resources, information, and updates are instantly accessible to all ECHO partners across the movement

Throughout our development and implementation of the COVID-19 ECHO learning program for use by current and new ECHO partners across expanded ECHO networks, we will collect and report on best practices and lessons learned in the use of the ECHO model for emergency preparedness and response across political, geographic, and cultural contexts. We believe that this proposed partnership with Co-Impact for COVID-19 response, leveraging ECHO networks for rapid dissemination of critical information and training, will not only aid the world's healthcare workforce during this urgent global health emergency, but will also render us and our partners better able to address global health emergencies in the future.