



Sanjeev Arora

Nominated by Kathryn Moore



Project ECHO:

A revolution in workforce education

Moving Knowledge, Not People

Project ECHO: A revolution in workforce education and capacity-building

Every year, millions of students in rural and underserved areas throughout the world fall through the cracks of under-resourced education systems.

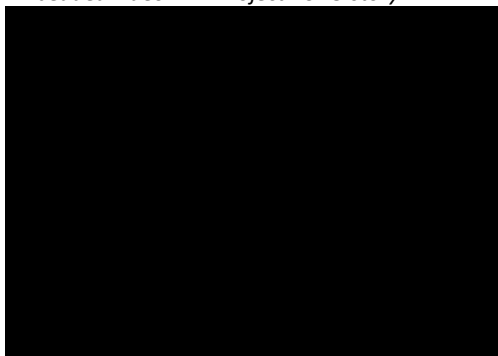
Every year, millions of patients in rural and underserved areas throughout the world suffer and die from conditions we know how to prevent, manage, and cure.

While financing and philanthropy for global health and education initiatives have increased in recent years, inequities persist. Lack of workforce capacity among teachers and healthcare practitioners contributes to these global disparities in education and health care. Our knowledge of what it takes to ensure student success, or to prevent, treat, and cure common and complex conditions, is growing every year. But too often that knowledge is only available to those living near academic and other research centers of excellence, and only to those with the resources to access it. This imbalance of knowledge severely impacts rural, underserved communities and manifests via poor education outcomes, premature deaths, economic burdens, and low quality of life.

Imagine thousands of teachers working in rural and underserved areas around the world, equipped with the most recent, cutting-edge solutions and best practices for promoting their students' success. Or thousands of health workers effectively treating conditions like hepatitis C, HIV, or tuberculosis in their own communities, without sending patients hundreds of miles away to medical centers where care is too costly and too late.

Project ECHO makes this possible by building networks that connect local education and health personnel with specialists and peers for ongoing, long-term training and mentoring. Globally, billions of people could benefit significantly from distributing knowledge of best practices to address health and education challenges. In the sixteen years since its founding, Project ECHO has made a significant impact on our understanding of professional education, empowering local communities by getting the right knowledge to the right people, in the right places, at the right times.

Embedded video link: Project ECHO story



The ECHO Story

Project ECHO was founded in 2003 by Dr. Sanjeev Arora, a liver disease specialist at the University of New Mexico Health Sciences Center, as a way to get best-practice hepatitis C care to New Mexico's rural patient populations.

Dr. Arora followed in the paths of his father, a public health specialist, and his mother, an OB/GYN, both of whom served

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rural patients in India. He completed his medical and pre-medical degrees in India, and residencies in New Delhi and New York. He became a Fellow in Gastroenterology at Boston's Tufts Medical Center, and then a faculty member at Tufts University School of Medicine. In 1993, he joined the University of New Mexico Hospital as Section Chief of Gastroenterology.

Upon arriving in New Mexico, he became aware of stark health care disparities across the state. He spent ten years building clinical systems at UNM to improve care for the region's underserved, but was still unable to help thousands of New Mexicans suffering from hepatitis C. In 2003, over 28,000 New Mexicans had a hepatitis C diagnosis, yet fewer than 5 percent had received treatment. Not enough specialists were equipped to administer best-practice treatment for the disease, which at the time involved a chemotherapy-like regimen of ribavirin and interferon. UNM's Albuquerque clinic had an eight-month waiting list, and many patients lived hundreds of miles away. They faced the costs of multiple long drives, missed work, and child care to get the care they needed. Many arrived with end-stage cirrhosis or fatal liver cancers that could have been prevented had they seen a specialist and received treatment sooner.

For Dr. Arora, this was unacceptable. The knowledge necessary to treat and cure hepatitis C existed, but not in the communities where these patients lived.

He envisioned a solution: connecting a team of specialists at a UNM "hub" with community clinicians across the state using videoconference software, for long-term mentoring and guided practice to treat hepatitis C patients. In time, participating clinicians would become experts at managing the disease, and the physician shortage would be solved. Project ECHO was born.

Eighteen months after Project ECHO launched, wait times at Dr. Arora's clinic fell from eight months to two weeks. Participating providers reported increased professional satisfaction, self-efficacy, and joy in their work. In 2011, the ECHO team published study results in the *New England Journal of Medicine* showing that ECHO-trained clinicians gave patients the same level of care as UNM specialists did, with fewer complications.

In 2007, Project ECHO® came in first among more than 300 entries from 27 countries in winning the Changemakers Award. This international competition was sponsored by the Robert Wood Johnson (RWJF) and Ashoka Foundations to identify programs that are changing existing paradigms in medical education and practice.

As its origin shows, the ECHO model empowers workforces in underserved communities. Unlike limited-term, face-to-face, or webinar-based trainings, ECHO virtually connects local providers to specialists for long-term, mutual knowledge-sharing, mentoring, and support. In ECHO-enabled communities of practice, participants and specialists learn from one another and together, their capacity to deliver best-practice services increases.

Today, Project ECHO is a global movement of partners – over 320 hubs using the ECHO model to address over 70 public health and education challenges across 37 countries. ECHO programs provide ongoing learning and mentorship to healthcare, education, and other professionals in topics like

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hepatitis C, HIV, behavioral health, chronic pain, opioid and substance use disorder, laboratory strengthening, quality improvement, autism, assistive technologies in and out of the classroom, educational leadership, student graduation/college and career readiness, crisis intervention training for law enforcement, support strategies for first responders, and many other areas. The ECHO Institute, located at the University of New Mexico Health Sciences Center in Albuquerque, NM, trains and supports these partners, providing them with the resources necessary to design, launch, and sustain their ECHO programs. Together, the ECHO Institute and its network of ECHO partners make up the global ECHO movement, working toward a shared goal of improving 1 billion lives by 2025.

The ECHO model: how it works



Project ECHO expands the long-term capacity of existing workforces. In its focus on ongoing mentoring and guided practice, it differs from “e-learning” or webinars, which involve asynchronous online tutorials without ongoing discussion or support. In its emphasis on developing communities of practice in which a specialist’s knowledge is shared with and among many personnel, it differs from “telemedicine,” in which a single specialist treats a single patient remotely. It requires very little internet bandwidth to function effectively.

The ECHO model has four key components:

- Disseminating proven best practices across diverse care or service sites to reduce disparities;
- Using case-based learning, so that participants receive guided practice and support from a multidisciplinary expert team and master complex issues;
- Using technology like multi-point videoconferencing to spread expert knowledge to nonspecialist personnel; and
- Monitoring/evaluating outcomes.

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The ECHO model is adaptable across conditions/topics and cultural contexts; however, ECHO programs follow a consistent format. In ECHO videoconference sessions, a team of experts at the partner “hub” site meets with local personnel at “spoke” sites (clinics, schools, etc.). Local personnel present de-identified student/patient or health/school system cases. Together, experts and personnel discuss the cases and share recommendations. Mutual learning is crucial: all participants are viewed as experts contributing knowledge leading to better patient care or student outcomes, and school or health system improvement. The ECHO model fosters peer-to-peer mentoring and develops knowledge networks. We call this philosophy “all-teach, all-learn.”

The ECHO Model

The ECHO model uses long-term learning and guided practice to **increase workforce capacity**, provide **best practice training**, and **reduce disparities** through its **hub-and-spoke** knowledge sharing networks



Educators in the field need access to educational expertise for challenging and complex issues



Not enough experts to provide in-person support and training for every educator in every community



ECHO® develops educators in early childhood or K-12 to become experts with others in a collaborative, virtual community of practice



Learners benefit from ECHO. They get the right knowledge, in the right place, at the right time.

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Impact and Evidence

Evaluation of outcomes is one of the core components of the ECHO model. The ECHO Institute provides all ECHO partners with training and resources to support evaluation of their ECHO programs, and members of the ECHO movement share their evaluation strategies and best practices through ongoing research collaboratives and ECHO’s semiannual MetaECHO conference in Albuquerque. As of August 2019, over 180 peer-reviewed, published evaluations have demonstrated the ECHO model’s impact on workforce capacity and patient/provider outcomes for a variety of conditions across diverse geographical and cultural landscapes (see accompanying full bibliography).

The ECHO model was deliberately shaped by educational theories and approaches proven effective in training and skills development for professionals in the workplace, including deliberate practice, social cognitive theory, situated learning, communities of practice, and adaptive expertise. Project ECHO’s theory of change posits that provider/practitioner-level outcomes such as increased knowledge and practice change will lead to patient (or student) and population-level outcomes through expansion of access to services and improvement of the quality of those services, which increases the efficiency and efficacy of healthcare and education systems.

ECHO for Education

While the ECHO model in and of itself is an innovation in professional education for medical, education, and other workforces, ECHO partners across the U.S. and around the world have recognized its potential to revolutionize solutions to school disparities and empower teachers working in underserved communities. The ECHO model provides teachers, administrators, and other education stakeholders with the opportunity to share best practices, deliver professional development, and implement collaborative problem-solving to address the complex challenges faced by learners, teachers, schools, and school systems in underresourced areas and for underserved populations.

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The ECHO Institute has partnered with New Mexico's Public Education Department (NMPED) on a series of innovative ECHO programs supporting New Mexico's rural teaching workforce:

- Education ECHO for Graduates: focuses on building teacher expertise to help students overcome barriers to graduation and transition to college and careers. Teachers and administrators from 11 New Mexico school districts have participated in the program thus far.
- Education ECHO: Teacher Pipeline: focuses on improving teacher-training pathway programs in schools, increasing educators's capacity to support students in the pursuit of careers in education. Teachers and administrators from 16 New Mexico school districts have participated in the program thus far.

In a preliminary evaluation, participants in both programs reported an increase in knowledge and skills in programs and activities that support college and career readiness (ECHO for Graduates) and teacher training pathways (Teacher Pipeline), and described plans to continue to implement what they learned on an ongoing basis. They reported an increase in student engagement as a result of their increased knowledge of these programs and activities. They also felt that participating in ECHO sessions provided them with much needed, regular, and accessible collaborative learning with their peers. As one teacher noted, participation in Education ECHO "helped me gain knowledge ... to better myself as an educator and to provide support that my students needed."

Across the country and around the world, committed partner organizations have also successfully adapted the ECHO model to address education challenges in the classroom and across school districts and systems. These include:

- The New Mexico Public Education Department, which in addition to its Education ECHO partnerships with the ECHO Institute also leverages the ECHO model to disseminate use of the Early Warning System (EWS) for student success.
- The Wyoming Institute for Disabilities (WIND), at the University of Wyoming, to support educators in helping students in need of assistive technologies, educational/school leadership, best practices, secondary transitions, autism, student health, and early childhood education.
- Oklahoma State University, to support educational development for school administrators and educators.
- Ambience Public School in India, mentoring teachers in areas crucial to student success such as English literacy, math, trauma-informed storytelling, mindfulness, and preventive health.

For a complete list of current Education ECHO programs and hubs, see Appendix B.

The New Mexico Peer Education Project (NMPEP) for Prisoner Health

The ECHO Institute team also partners with the New Mexico Corrections Department on the New Mexico Peer Education Project (NMPEP) for Prisoner Health, an innovative program that trains peer educators within the prisons to conduct health education workshops for fellow incarcerated. Originally implemented to reduce the incidence of hepatitis C among prisoners by raising awareness of the disease and how it is transmitted, NMPEP has expanded to cover substance use disorder awareness

and topics such as the use of Naloxone. Peer educators supported by this program report increased knowledge, self-efficacy, and proficiency in skills and practices (presentations, public speaking, outreach) that enhance their potential for successful re-entry into their communities.

The NMPEP program is in the process of being adopted by correctional institutions in the states of Tennessee and Indiana, and in Vancouver, Canada.

Sustainability and Reach

To date, the ECHO Institute has received approximately \$128 million in funding to support the expansion of Project ECHO throughout the U.S. and the world, from a committed group of donors who share ECHO's vision, and from multiple government agencies and philanthropic funders, including:

Federal government support (over \$30M total)

- **The U.S. Department of Defense (DoD)**, supporting healthcare practitioners treating chronic pain and other chronic conditions throughout the armed forces.
- **Health Resources and Services Administration (HRSA)**, training providers to address autism, epilepsy, and most recently opiate use disorder and perinatal hepatitis B.
- **Centers for Disease Control and Prevention (CDC):**
 - ECHO programs enhancing linkage to care/treatment for people living with hepatitis C
 - ECHO programs bringing American Indian/Alaskan Native tribal organizations together to learn and share best practices under the Good Health and Wellness in Indian Country Initiative
 - ECHO programs training providers in HIV care and treatment, through the President's Emergency Plan for AIDS Relief (PEPFAR)
- **Agency for Healthcare Research and Quality (AHRQ)**, for ECHO programs training providers in hepatitis C treatment and medication-assisted treatment for substance use disorders
- **Substance Abuse and Mental Health Services Administration (SAMHSA)**, for ECHO programs training providers in the Fundamentals of Addiction Medicine curriculum
- **Centers for Medicare & Medicaid Services (CMS)**, for ECHO programs for complex-needs patients and quality improvement in healthcare facilities and systems
- **Indian Health Service (IHS)** supports ECHO programs training IHS, Tribal, and Urban Indian Health Center providers in hepatitis C, HIV, tuberculosis, and rheumatology.
- **Office of the Assistant Secretary for Preparedness and Response (ASPR)**, for ECHO programs training providers in response to the Zika virus in Puerto Rico.

State government support (over \$35M total)

- **The New Mexico State Legislature**, for statewide ECHO programs educating providers in best-practice care for hepatitis C, diabetes, chronic pain, addiction, behavioral health, and numerous other disease areas.

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- **The New Mexico Department of Health**, to enhance statewide access to leading-edge hepatitis C treatment and HIV management via the ECHO model for case-based learning and specialized disease consultation.
- **New Mexico Medicaid** has provided support to the ECHO Institute through its Managed Care Organization partners, to provide ongoing education for Medicaid providers throughout the state on a number of chronic, common conditions
- **The Albuquerque Area Indian Health Board** supports the ECHO Institute in the development and implementation of a culturally-competent Diabetes and Cardiovascular curriculum for tribal Community Health Representatives.
- **The New Mexico Department of Corrections** supports the ECHO Institute to guide its medical contractors in the treatment, care, and management of people incarcerated living with hepatitis C, and partners with the ECHO Institute team on the New Mexico Peer Education Program.
- **The New Mexico Public Education Department** supports the ECHO Institute for Education ECHO programs that support teachers, schools, and districts across the state.

Philanthropic support (over \$55M total)

- **Co-Impact**: this international funding collaborative has recently provided significant support to the ECHO Institute for support of global partners utilizing the ECHO model, particularly in India
- **The GE Foundation**, to support national and global partner training in the ECHO model
- **The Robert Wood Johnson Foundation**, to support national and global partner training in the ECHO model
- **The Helmsley Charitable Trust**, for ECHO programs training providers in complex diabetes treatment, and to support the ECHO Institute in the development of its strategic plan
- **The Bristol Myers Squibb Foundation**, for ECHO programs that increase the capacity of rural providers to provide top-quality cancer care for their patients
- **The Merck Foundation**, for ECHO programs increasing access to care among underserved populations across Southeast Asia.

Project ECHO Global Reach, August 2019



APPENDIX A: Selected links, videos, and publications

Selected Links:

Project ECHO website: <https://echo.unm.edu/>

Project ECHO Bibliography: https://echo.unm.edu/doc/Project%20ECHO%20Bibliography_08.01.2019.pdf

Video:

Dr. Sanjeev Arora, Opening Address to MetaECHO 2019 Conference, “Breaking down the wall”

https://www.youtube.com/watch?v=5nbyZ_gLkFE&feature=youtu.be

ECHO India Trust, “ECHO Impact: Dr. Sree Devi from PHC Lepakshi, Andhra Pradesh” – ECHO programs training rural India’s community health workers in cervical cancer screening.

<https://www.youtube.com/watch?v=GpH5xrz12Qc>

Dr. Sanjeev Arora, 2013 TEDx ABQ, “Project ECHO: Changing the World, Fast”

<https://www.youtube.com/watch?v=IY5nlJxac0g>

Robert Wood Johnson Foundation, “Project ECHO: A Revolutionary Model for Expanding Access to Specialized Care,” https://www.youtube.com/watch?v=2IBfyOIL4_s

Online articles and stories:

Medium blog: “The ECHO Effect”: A collection of personal stories on the many ways in which Project ECHO is working to touch one billion lives. <https://medium.com/the-echo-effect>

Vox.com: “America’s doctors can beat the opioid epidemic. Here’s how to get them on board.”

<https://www.vox.com/science-and-health/2018/7/31/17398914/opioid-epidemic-project-echo-new-mexico-addiction>

STATNews: “Where medical specialists are scarce, a push to train primary physicians to do the job,”

<https://www.statnews.com/2016/09/12/doctors-primary-care-specialists-project-echo/>

The New York Times: “The Power to Cure, Multiplied,” <https://opinionator.blogs.nytimes.com/2014/06/11/the-doctor-will-stream-to-you-now/>

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Appendix B: Partner Education ECHO Programs in the U.S. and Around the World

ECHO Partner/Location	Program Focus	Website
Ambience Public School Gurgaon, India	Multiple programs: English literacy, math, student health, mindfulness, teacher-as-artists	http://www.ambienceschoolgurgaon.com/echo
Children's Healthcare of Atlanta	Georgia Statewide Commercial Sexual Exploitation of Children Multidisciplinary Team	https://www.choa.org/medical-professionals/physician-resources/telemedicine-resources
Health and Social Care Board Northern Ireland	EQUIP: Experience in Quality Improvement	http://www.hscboard.hscni.net/
Karuna Trust, India	Skills Training	http://www.karunatrust.com/
Missouri Telehealth Network	Multi-Tiered System of Support (MTSS) for student success	https://showmeecho.org/clinics/mtss/
Mountain Area Health Education Center, Asheville, NC	School Nurses	https://mahec.net/event/55260
New Mexico Public Education Department	Early Warning Systems (EWS)	http://ped.state.nm.us/
Northeast Ohio Medical Center DBA NEOMED: Ohio Alliance	Two programs: Americorps, Risky Behaviors	http://home.neomed.edu/
Oklahoma State University - Center for Health Sciences	Education Development and Leadership	http://www.healthsciences.okstate.edu/echo/
University of Chicago	Comprehensive Care Learning Collaborative	http://www.echo-chicago.org/
University of Kansas Medical Center	Problem Behaviors/Summer School	http://www.kumc.edu/community-engagement/ku-center-for-telemedicine-and-telehealth/project-echo.html
University of Nevada, Reno School of Medicine	School-based Mental Health	http://med.unr.edu/echo
University of Wyoming	Multiple programs: Assistive Technologies, Career Development, Early Childhood, Educational Leadership, School Leadership, Secondary Transitions, Student Health, Waiver Services	http://www.uwyo.edu/wind/echo/

Project ECHO®

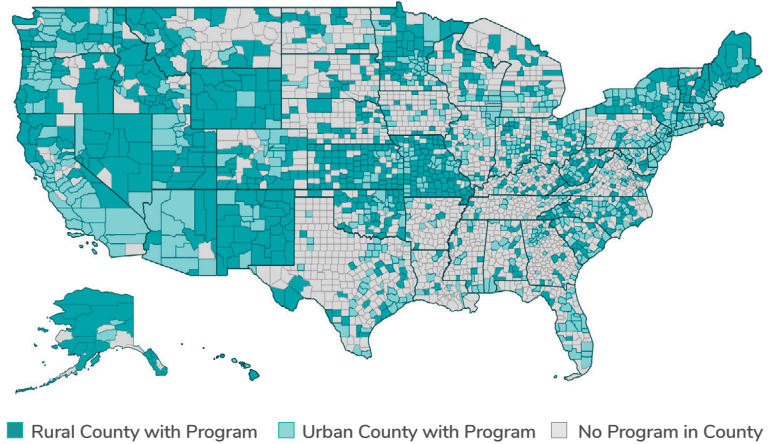
U.S. REACH AND IMPACT OVERVIEW

Project ECHO® (Extension for Community Healthcare Outcomes) is a movement to monopolize knowledge and amplify the capacity to provide best practice care for underserved people all over the world. For more about the data in this overview, see reverse or visit <https://echo.unm.edu/about-echo/reachinus/data>.

Over **38,000** care providers spent **411,900** learning hours since 2003 engaging in case-based medical education through ECHO.

429 Project ECHO programs serving all **50 states** provide better care and access to critical healthcare information for both care providers and patients. **More than 50%** of all Project ECHO programs serve **rural counties** in the United States.

RURAL & URBAN COUNTIES SERVED BY PROJECT ECHO IN THE U.S.



LEARNING CAPACITY

Over **46 studies** on 22 different topics reported **improvements in self-efficacy** after participation in ECHO¹.



Project ECHO is a case-based experiential learning option for care providers. Currently, it falls outside the scope of funded professional development mechanisms.

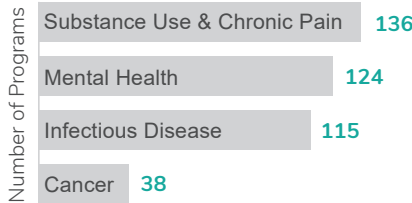
¹ Project ECHO: Research. <https://echo.unm.edu/about-echo/research>.



SPECIALIZED SERVICES

Project ECHO's programs collaborate on 72 — and growing — topics and conditions.

TOP CATEGORIES OF PROGRAMS IN THE U.S.



ECHO MOVEMENT DRIVES U.S. POLICY

The ECHO movement in the United States is gaining increased recognition and momentum at the federal level. Building on the successes of the **ECHO Act of 2016** which recognized the value of technology-enabled collaborative learning models (TECLMs) — like Project ECHO — and the **ECHO Act Report** from March 2019 which recognized the broad interest in, and rapid adoption of, TECLMs, Senators Schatz (D-HI), Kaine (D-VA), and Murkowski (R-AK) recently introduced the **ECHO 2019 Act**.

“Technology has the potential to transform the way we train doctors and deliver health care.”

~Senator Schatz

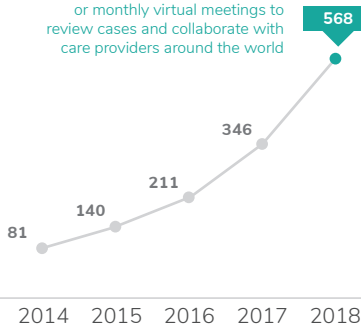
The **ECHO 2019 Act** seeks to provide new federal funding to help connect primary care providers in medically underserved areas with specialists at academic hubs. Medical professionals can then more easily access the continuing education they need to provide high-quality health care to the people who need it most.



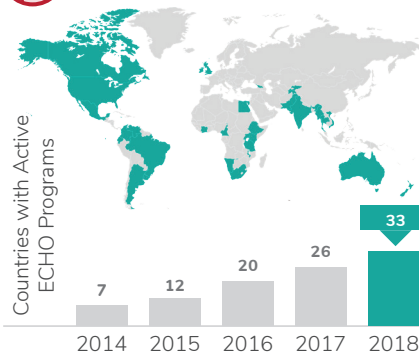
ENGAGEMENT GROWTH

Programs Launched in the U.S.

Programs are weekly, bi-weekly, or monthly virtual meetings to review cases and collaborate with care providers around the world



GLOBAL REACH



About the Metrics

Number of Care Providers

Project ECHO participants/care providers are typically health care providers; however, sometimes care providers are from other growing fields, such as education. This number is the total count of all-time care providers in the U.S. who have participated in ECHO.

Case-Based Learning Hours

One hour of learning was assigned for every hour a participant spent in a Project ECHO program. The data were interpolated for programs where session times were unavailable. Then, the final number of learning hours for all data were summed.

Program Presence in Rural U.S. Counties

Project ECHO tracks where their participants practice; the counties where participants serve were identified based on that data. Then counties were then categorized into an urban or rural status based on the 2013 National Center for Health Statistics Urban-Rural Classification Scheme for Counties.

Specialized Services

Typically, ECHO programs focus on a specific topic or group of topics—for example, one program may focus on Hepatitis C treatment where another may focus on the overlap of mental health and addiction treatment. The top categories were generated by clustering program focus areas into groups. Programs may be categorized into multiple areas.

Learning Capacity

Since 2007, over 160 published studies analyze the outcomes and benefits of Project ECHO's programs. Each publication's findings are tracked and catalogued. Despite this growing body of evidence, health care provider participation in ECHO programs remains unfunded. Participation is not viewed in the same way as more traditional continued education models.

Engagement Growth

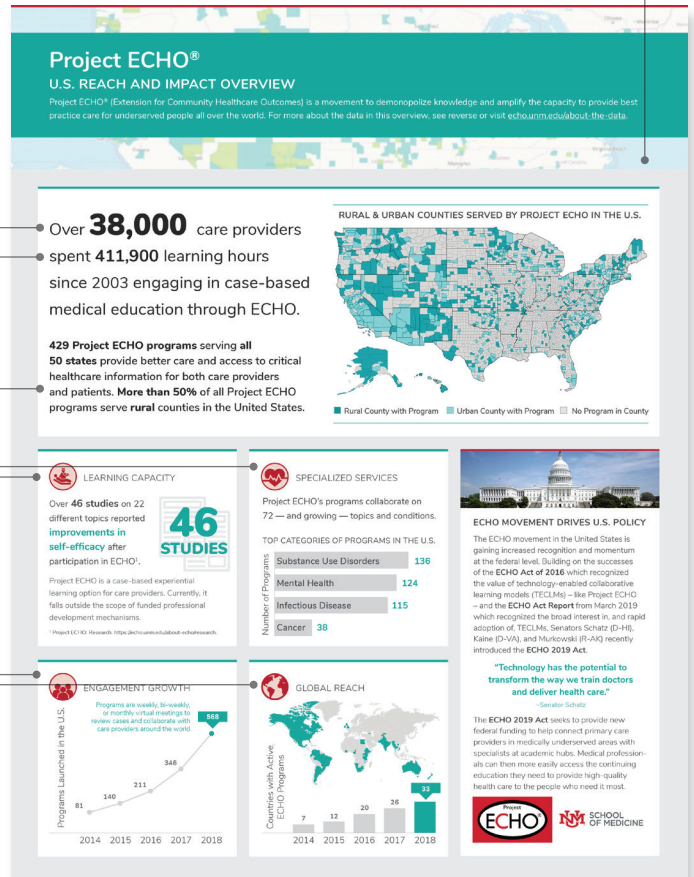
An ECHO Program is considered to be "launched" when it holds its first virtual meeting (session). This chart shows the cumulative number of launched programs in the US from 2014 – 2018. Note that programs end for a variety of reasons (e.g. grant expiration, iteration into a new program), which results in the number of current (active) programs being fewer than the cumulative number that have been either launched or active.

Global Reach

Momentum for Project ECHO is growing globally; over 33 countries host ECHO programs, many of which reach their surrounding countries.

Rural & Urban Counties Served

Counties with an ECHO participant are colored. The shade of coloring is assigned based on whether the county is classified as urban or rural, according to the 2013 National Center for Health Statistics Urban-Rural Classification Scheme for Counties.



Project ECHO® (Extension for Community Healthcare Outcomes) is a lifelong learning and guided practice model that revolutionizes medical education and exponentially increases workforce capacity to provide best-practice specialty care and reduce health disparities.

The heart of the ECHO model™ is its hub-and-spoke knowledge-sharing networks, led by expert teams who use multi-point videoconferencing to conduct virtual clinics with community providers. In this way, primary care doctors, nurses, and other clinicians learn to provide excellent specialty care to patients in their own communities.

To learn more, visit <https://echo.unm.edu/about-echo/reachinus/data> or contact the ECHO Institute at ECHOReplication@salud.unm.edu.

Project ECHO®: The Global ECHO Network

12 ECHO Superhubs (Training Centers): 6 Domestic Centers, 6 International Centers (5 Countries)
 308 Hubs: 197 Domestic Hubs, 111 International Hubs (35 Countries)

For more detailed information, or to filter hubs/programs based on interest, please visit our interactive dashboard [here](#).

ECHO Superhubs (Training Centers)

	Name	City/State	Country
1	University of New Mexico (UNM ECHO Institute)	Albuquerque, New Mexico	United States
2	American Academy of Pediatrics (AAP)	Chicago, Illinois	United States
3	ECHO India	New Delhi	India
4	ECHO Uruguay	Montevideo	Uruguay
5	Highland Hospice	Inverness, Scotland	United Kingdom
6	Hospice UK	London, England	United Kingdom
7	Missouri Telehealth Network	Columbia, Missouri	United States
8	St. Luke's Hospice	Sheffield, England	United Kingdom
9	University Health Network	Toronto, Ontario	Canada
10	University of Chicago	Chicago, Illinois	United States
11	University of Texas MD Anderson	Houston, Texas	United States
12	University of Wyoming	Laramie, Wyoming	United States

ECHO Hubs

	Name	City/State	Country	Programmatic Focus Area(s)
1	4 Breath 4 Life	Franklin, Tennessee	United States	Primary Care
2	Academic Model Providing Access to Healthcare	Eldoret, Western	Kenya	Chronic Disease
3	Adizes Institute	Zapopan, Jalisco	Mexico (México)	Business
4	African Society for Laboratory Medicine	Kirkos Subcity, Kebele 08, Addis Ababa	Ethiopia	Laboratory Sciences, Quality Improvement
5	African Union's Specialized Technical Agency, the Africa Centers for Disease Control and Prevention	Addis Ababa, Addis Ababa	Ethiopia	Infectious Disease
6	Aga Khan University & Hospital	Karachi, Sindh	Pakistan (پاکستان)	Hepatitis C, Infectious Disease
7	Alaska Native Medical Center of Alaska Native Tribal Health Consortium	Anchorage, Alaska	United States	Community Health Workers, Palliative Care , Gastroenterology
8	Alzheimer's Disease and Related Disorders Association, Inc., dba Alzheimer's Association	Chicago, Illinois	United States	Primary Care, Behavioral/Mental Health
9	Ambience Public School Gurgaon	Gurgaon, Haryana	India	Education, Public Health
10	American Academy of Pediatrics	Itasca, Illinois	United States	Neurology, Pediatrics, Quality Improvement, Infectious Disease, Cancer Prevention & Risk Reduction, Cancer Screening,
11	American Academy of Pediatrics Georgia Branch	Atlanta, Georgia	United States	Endocrinology/Diabetes, Pediatrics
12	American Cancer Society, Inc.	Atlanta, Georgia	United States	Cancer Prevention & Risk Reduction
13	Anchorage School District/Alaska Education Network		United States	

14	Arizona Chapter of the American Academy of Pediatrics	Phoenix, Arizona	United States	Cancer Prevention & Risk Reduction, Cancer Screening, Infectious Disease, Pediatrics, Quality Improvement
15	Arkansas Children's Research Institute Hospital	Little Rock, Arkansas	United States	Autism
16	Army - Regional Health Command - Central	Fort Sam Houston, Texas	United States	Chronic Pain, Military Health
17	Army - Regional Health Command- Atlantic	Fort Bragg, North Carolina	United States	Chronic Pain, Military Health
18	Army - Regional Health Command- Europe	Landstuhl	Germany (Deutschland)	Chronic Pain, Military Health
19	Army - Regional Health Command- Pacific	Honolulu, Hawaii	United States	Chronic Pain, Military Health
20	Association of State and Territorial Health Officials	Arlington, Virginia	United States	Cancer Prevention & Risk Reduction, Infectious Disease, Quality Improvement
21	Atrium Health	Charlotte, North Carolina	United States	Hematology
22	Avera Health	Sioux Falls, South Dakota	United States	Behavioral/Mental Health, Substance Use Disorders
23	Baycrest Centre for Geriatric Care	Toronto, Ontario	Canada	Geriatrics
24	Baylor St. Luke's Medical Center	Houston, Texas	United States	Gastroenterology, Cardiology, Hepatitis B, Hepatitis C, Infectious Disease
25	Beacon Health Options	Boston, Massachusetts	United States	Substance Use Disorders
26	Better Health for Northeast NY	Albany, New York	United States	Immune Disorders, Pediatrics, Pulmonary
27	Billings Clinic	Billings, Montana	United States	Behavioral/Mental Health, Pediatrics, Substance Use Disorders, Corrections
28	Boston Medical Center	Boston, Massachusetts	United States	Hematology, Pediatrics, Substance Use Disorders
29	Cameroon Baptist Convention Health Services	North West Region,	Cameroon (Cameroun)	Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening
30	Cankids Kidscan	New Delhi, Delhi	India	Cancer Survivorship
31	Carilion Medical Center	Roanoke, Virginia	United States	Chronic Pain, Hepatitis C, Substance Use Disorders
32	Catholic Health Initiatives St. Gabriel's Health	Little Falls, Minnesota	United States	Substance Use Disorders
33	Center for Asian Health Equity University of Chicago Medicine	Chicago, Illinois	United States	Cancer Screening
34	Center for Regional Healthcare Innovation, LLC (Westchester Medical Center Health Network)	Valhalla, New York	United States	Behavioral/Mental Health
35	Centers for Disease Control and Prevention	Atlanta, Georgia	United States	Infectious Disease
36	Centre for Addiction and Mental Health	Toronto, Ontario	Canada	Behavioral/Mental Health, Substance Use Disorders, Psychiatry, Indigenous Peoples' Health, Wellness, LGBT Health
37	Centre Hospitalier de Universite de Montreal	Montreal, Quebec	Canada	Chronic Pain, Hepatitis C, Infectious Disease, Behavioral/Mental Health, Substance Use Disorders
38	Chamberlain University	Downers Grove, Illinois	United States	Education, Palliative Care
39	Champlain Valley Physicians Hospital	Plattsburgh, New York	United States	Hepatitis C, HIV, Infectious Disease
40	Charleston Area Medical Center	Charleston, West Virginia	United States	Cancer Survivorship

41	Cherokee Nation Hastings Hospital	Tahlequah, Oklahoma	United States	Hepatitis C, Infectious Disease
42	Chiang Mai University	Sriphum, Muang Chiang Mai	Thailand (ราชอาณาจักรไทย)	Behavioral/Mental Health, Chronic Disease
43	Children's Health Queensland Hospital and Health Service	Brisbane, Queensland	Australia	Behavioral/Mental Health, Nutrition & Metabolic Diseases, Refugee Health Chronic Pain, Pediatrics
44	Children's Healthcare of Atlanta	Atlanta, Georgia	United States	Social Welfare, Neurology, Education, Domestic Violence, Pediatrics, Behavioral/Mental Health
45	Children's Hospital & Medical Center in Omaha	Omaha, Nebraska	United States	Nutrition & Metabolic Diseases, Pediatrics
46	Children's Hospital of Eastern Ontario - Ottawa Children's Treatment Centre	Ottawa, Ontario	Canada	Pediatrics, Behavioral/Mental Health, Psychiatry
47	Children's Hospital of Oakland	Oakland, California	United States	Hematology
48	Children's Hospital of Philadelphia	Philadelphia, Pennsylvania	United States	Autism
49	Children's Mercy Hospital	Kansas City, Missouri	United States	Pediatrics
50	Chronic Liver Disease Foundation	Clark, New Jersey	United States	Cancer Diagnosis, Cancer Treatment
51	Cincinnati Children's Hospital Medical Center	Cincinnati, Ohio	United States	Behavioral/Mental Health, Autism, Hematology
52	Cipla Cancer and AIDS Foundation	Pune, Maharashtra	India	Pediatrics, Rheumatology
53	City of Albuquerque	Albuquerque, New Mexico	United States	Quality Improvement, Law Enforcement, Business
54	Clinica Medica Internacional-AmorPro TB	Juarez, Mexico	Mexico (México)	Infectious Disease, Tuberculosis
55	Clinical Education Initiative	New York, New York	United States	HIV, Infectious Disease
56	Community Care of North Carolina, Inc.	Raleigh, North Carolina	United States	Chronic Pain, Substance Use Disorders
57	Community Health Center Association of Connecticut, Inc.	Cheshire, Connecticut	United States	Chronic Pain, Substance Use Disorders
58	Community Health Center, Inc.	Middletown, Connecticut	United States	Behavioral/Mental Health, Substance Use Disorders, Chronic Pain, HIV, Infectious Disease, Hepatitis C, Complex Care, Pediatrics, LGBT Health
59	Community Health Network of Connecticut	Connecticut	United States	Endocrinology/Diabetes, Ethics, Pediatrics
60	Consortio Ecuatoriano para el Desarrollo de Internet Avanzado (CEDIA) -- Ecuador	Cuenca, Azuay	Ecuador	Cardiology, Endocrinology/Diabetes, Women's Health
61	Dyslexia Resource Center	Baton Rouge, Louisiana	United States	Neurology, Developmental Disability
62	Earl Mountbatten Hospice	Newport, South East	United Kingdom	Nursing/Care Homes
63	East Tennessee State University	Johnson City, Tennessee	United States	Neurology
64	Eastern Africa Regional Collaborating Center - Africa CDC	Kenya	Kenya	Public Health
65	ECHO India	New Delhi, Delhi	India	Palliative Care
66	El Futuro, Inc.	Durham, North Carolina	United States	Behavioral/Mental Health
67	Excellus Health Plan, Inc.	Syracuse , New York	United States	Palliative Care
68	Family Health Centers of San Diego	San Diego, California	United States	Hepatitis C, Infectious Disease, Nursing/Care Homes
69	Family Voices	Albuquerque, New Mexico	United States	Community Health Workers
70	Farleigh Hospice	Chelmsford, East	United Kingdom	Nursing/Care Homes, Palliative Care
71	Fenway Health	Boston, Massachusetts	United States	LGBT Health

72	Four Seasons Compassion for Life	Flat Rock, North Carolina	United States	Palliative Care
73	Fundación Carlos Slim	Mexico City	Mexico (México)	Chronic Disease, Primary Care
74	George Mason University	Fairfax, Virginia	United States	Substance Use Disorders
75	George Washington University	Washington, District of Columbia	United States	Endocrinology/Diabetes
76	Georgian-French Joint Hematology Clinic	Tbilisi, Tbilisi	Georgia (საქართველო)	Hepatitis C, Infectious Disease
77	Greensboro Area Health Education Center	Greensboro , North Carolina	United States	Substance Use Disorders
78	Greenville Health System Partners in Health dba University Medical Group	Greenville, South Carolina	United States	Behavioral/Mental Health, Nursing/Care Homes, Psychiatry
79	Hamilton Health Sciences Corporation	Hamilton, Ontario	Canada	Neurology
80	Hartford Health and Human Services	Hartford, Connecticut	United States	Community Health Workers, Complex Care, Endocrinology/Diabetes, Hepatitis C, HIV, Infectious Disease
81	Harvard Beth Israel Deaconess Medical Center	Boston, Massachusetts	United States	Geriatrics, Care Transactions, Quality Improvement
82	Hawaii Learning Groups, LLC	Hawaii	United States	Wellness, Endocrinology/Diabetes
83	Health and Social Care Board Northern Ireland	Belfast, Northern Ireland	United Kingdom	Quality Improvement, Ophthalmology, Primary Care, Public Health, Behavioral/Mental Health, Otolaryngology, Neurology, Nursing Endocrinology/Diabetes, Geriatrics, Nutrition & Metabolic Diseases, Corrections, Surgery, Palliative Care, Pharmacy, Gastroenterology, Orthopedics, Cardiology, Dermatology, Pediatrics, Women's Health, Education,
84	Health Choice Integrated Care, LLC now Steward Health Choice Arizona	Flagstaff, Arizona	United States	Substance Use Disorders
85	Health Insight	Salt Lake City, Utah	United States	Endocrinology/Diabetes, Infectious Disease, Primary Care, Quality Improvement, Substance Use Disorders
86	Health Net	Gujranwala, Punjab	Pakistan (پاکستان)	Cardiology, Hepatitis C, Infectious Disease, Nephrology, Chronic Disease, Hepatitis B
87	Hennepin Healthcare System, Inc.	Minneapolis, Minnesota	United States	Wellness, Substance Use Disorders
88	Highland Hospice	Inverness, Scotland	United Kingdom	Nursing, Nursing/Care Homes, Palliative Care, Primary Care, Wellness, Emergency Care
89	Holland Bloorview Kids Rehabilitation Hospital (ATN Site)	Toronto, Ontario	Canada	Autism
90	Holy Family Hospital	New Delhi, Delhi	India	Neurology
91	Hospice Isle of Man	Douglas, Isle of Man	United Kingdom	Palliative Care
92	Hospice UK	Kings Cross, London, England	United Kingdom	Behavioral/Mental Health, Palliative Care
93	Hospice Waikato	Hamilton	New Zealand	Palliative Care
94	Hospital Britanico de Buenos Aires	CABA, Buenos Aires	Argentina	Gastroenterology
95	Hospital de Clinicas de Porto Alegre	Porto Alegre, Rio Grande do Sul	Brazil (Brasil)	Hepatitis C, Infectious Disease

96	Hospital Eva Peron	Rosario, Santa Fe	Argentina	Pulmonary, Hepatitis C, Infectious Disease
97	Hospital Italiano	Buenos Aires, Buenos Aires	Argentina	Gastroenterology, Dermatology
98	Hospital Pablo Tobón Uribe	Medellin, Antioquia	Colombia	Cancer Treatment
99	HRSA Ryan White HIV/AIDS Program Center for Quality Improvement & Innovation (CQII)	New York, New York	United States	HIV, Women's Health, Infectious Disease, Quality Improvement, LGBT Health, Quality Improvement,
100	ICAP Columbia University South Sudan	New York, New York	United States	HIV, Infectious Disease
101	Indian National Association for Study of the Liver	Chandigarh, Punjab	India	Hepatitis C, Infectious Disease
102	Indiana University	Bloomington, Indiana	United States	Substance Use Disorders
103	Indiana University School of Medicine	Indianapolis, Indiana	United States	Substance Use Disorders
104	Indiana University-Purdue University Indianapolis Fairbanks School of Public Health	Indianapolis, Indiana	United States	Hepatitis C, HIV, Infectious Disease, Primary Care, LGBT Health
105	Infection Control Africa Network	Cape Town, Western Cape	South Africa	Infectious Disease
106	Institute for Cytology and Preventive Oncology / National Institute of Cancer Prevention and Research	New Delhi, Delhi	India	Cancer Screening
107	Institute of Liver and Biliary Sciences	New Delhi, New Delhi	India	Gastroenterology
108	Institute of Oncology Angel H. Roffo	Buenos Aires	Argentina	Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Treatment, Hematology
109	Instituto Alexander Fleming	Buenos Aires, Buenos Aires	Argentina	Cancer Diagnosis, Cancer Screening, Cancer Treatment
110	Instituto de Rehabilitacion Psicofisica de Buenos Aires	Buenos Aires, Buenos Aires	Argentina	Pulmonary
111	Instituto PALLIUM LATINOAMÉRICA	Caba	Argentina	Palliative Care
112	Intermountain Healthcare	Salt Lake City, Utah	United States	Gastroenterology, Geriatrics, Infectious Disease, Behavioral/Mental Health, Nutrition & Metabolic Diseases
113	International Gynecologic Cancer Society	Louisville, Kentucky	United States	Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Treatment
114	International Liver Centers Foundation	Coronado, California	United States	Gastroenterology, Hepatitis C, Infectious Disease
115	IT'S TIME TEXAS	Austin , Texas	United States	Public Health
116	Jaramogi Oginga Odinga Teaching & Referral Hospital Kenya	Kisumu, Nyanza	Kenya	HIV, Infectious Disease
117	Johns Hopkins University School of Medicine	Baltimore, Maryland	United States	Hematology
118	Joslin Diabetes Center	Boston, Massachusetts	United States	Endocrinology/Diabetes
119	Karuna Trust	Bangalore, Karnataka	India	Pediatrics, Reproductive Health, Public Health, Education
120	Kazakh Medical University for Continuous Education	Almaty, Almaty	Kazakhstan (Қазақстан)	HIV, Infectious Disease
121	Kennedy Krieger Institute	Baltimore, Maryland	United States	Behavioral/Mental Health, Developmental Disabilities
122	Kent State University	Kent, Ohio	United States	Complex Care,

123	Kenyan National Tuberculosis, Leprosy and Lung Disease Program Kenya	Nairobi, Nairobi	Kenya	Infectious Disease, Tuberculosis
124	Kimberley Hospital, South Africa	Northern Cape	South Africa	Cancer Diagnosis, Cancer Treatment, Palliative Care
125	King George's Medical University	Lucknow, Uttar Pradesh	India	
126	Kipepeo Therapies		Kenya	Autism
127	Kyrgyz State Medical Institute of Postgraduate Education	Bishkek, Bishkek	Kyrgyzstan (Кыргызстан)	HIV, Infectious Disease
128	LA Net	Long Beach, California	United States	Geriatrics
129	Lair Centre	Vancouver, British Columbia	Canada	Hepatitis C, Infectious Disease
130	Lake Superior Quality Innovation Network		United States	
131	Lighthouse Trust	Lilongwe, Malawi	Malawi	HIV, Infectious Disease
132	LiveOnNY	New York, New York	United States	Transplants/Organ Donation, Quality Improvement
133	Liverpool Hospital	Liverpool, New South Wales	Australia	Hepatitis C, Infectious Disease
134	Lurie Center for Autism	Lexington, Massachusetts	United States	Autism
135	LV Prasad Eye Institute	Hyderabad, Telangana	India	Ophthalmology
136	Maine Cancer Foundation	Falmouth, Maine	United States	Cancer
137	Maine Quality Counts DBA Northern New England Network	Manchester, Maine	United States	Substance Use Disorders
138	MaineHealth	Portland, Maine	United States	Endocrinology/Diabetes, Hepatitis C, Infectious Disease, Palliative Care
139	Maniilaq Association	Kotzebue, Alaska	United States	Behavioral/Mental Health, Psychiatry, Substance Use Disorders
140	Marshall University	Huntington, West Virginia	United States	Endocrinology/Diabetes
141	Max Super Speciality Hospital, Saket	New Delhi, Delhi	India	Cancer Treatment
142	Mayo Clinic		United States	Hepatitis B, Hepatitis C, Palliative Care
143	mDoc Healthcare	Lagos, Lagos	Nigeria	Quality Improvement
144	Medical University of South Carolina	Charleston, South Carolina	United States	Substance Use Disorders
145	Migrant Clinicians Network	Austin, Texas	United States	Ambulatory Care, Infectious Disease
146	MIND Institute	California	United States	Autism
147	Ministry of Health and Public Hygiene Côte d'Ivoire	Abidjan, Abidjan	Ivory Coast (Côte d'Ivoire)	HIV, Infectious Disease
148	Ministry of Health and Sports, Myanmar		Myanmar (Burma)	HIV, Infectious Disease
149	Ministry of Health Jamaica	Mandeville, Manchester	Jamaica	HIV, Infectious Disease
150	Ministry of Health, Zambia		Zambia	HIV, Infectious Disease, Tuberculosis
151	Missouri Telehealth Network	Columbia, Missouri	United States	HIV, Infectious Disease, Substance Use Disorders, Community Health Workers, Ethics, Behavioral/Mental Health, Hepatitis C, Infectious Disease, Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening, Dermatology, Immune Disorders, Autism, Chronic Pain, Education
152	MNI Great Lakes	Grand Blanc, Michigan	United States	Osteology, Chronic pain, Substance Use Disorders
153	Montefiore Health System, Inc.	Bronx, New York	United States	Behavioral/Mental Health, Substance Use Disorders

154	Mountain Area Health Education Center	Asheville, North Carolina	United States	Education, Nursing, Primary Care
155	Mrcheveli - Georgia	Tbilisi, Tbilisi	Georgia (საქართველო)	Hepatitis C, Infectious Disease
156	Municipal Secretary of Health of São Paulo	São Paulo	Brazil (Brasil)	HIV, Infectious Disease
157	Namibia Ministry of Health and Social Services	Windhoek, Khomas	Namibia	HIV, Infectious Disease
158	National AIDS STI Control Program Kenya	Nairobi, Nairobi	Kenya	HIV, Infectious Disease
159	National Cancer Institute Center for Global Health	Bethesda, Maryland	United States	Cancer Prevention & Risk Reduction, Cancer Screening
160	National Center for Disease Control and Public Health	Tbilisi	Georgia (საქართველო)	Infectious Disease, Tuberculosis
161	National Center for Tuberculosis and Lung Diseases	Tbilisi, Tbilisi	Georgia (საქართველო)	Infectious Disease, Tuberculosis
162	National Health Laboratory Services	Sandringham, Johannesburg	South Africa	Laboratory Sciences
163	National Institute for Mental Health and Neurosciences	Bengaluru, Karnataka	India	Behavioral/Mental Health, Substance Use Disorders, Education
164	National Institute for Tuberculosis and Respiratory Diseases	New Delhi, Delhi	India	HIV, Infectious Disease, Tuberculosis
165	National Lung Hospital, Vietnam	Hanoi, Red River Delta	Vietnam (Việt Nam)	Infectious Disease, Tuberculosis
166	National Osteoporosis Foundation - National Bone Health Alliance	Arlington, Virginia	United States	Osteology
167	National Public Health Laboratory Services – Kenya	Nairobi, Nairobi	Kenya	Infectious Disease, Quality Improvement
168	Navy Medicine East- Naval Medical Center	Portsmouth, Virginia	United States	Chronic Pain, Military Health
169	Navy Medicine West- Naval Medical Center	San Diego, California	United States	Chronic Pain, Military Health
170	Neighborhood Health Centers of the Lehigh Valley	Bethlehem, Pennsylvania	United States	Substance Use Disorders
171	New Jersey Chapter, American Academy of Pediatrics	East Windsor, New Jersey	United States	Cancer Prevention & Risk Reduction, Cancer Screening, Infectious Disease, Pediatrics
172	New Mexico Family Advocacy Program	Albuquerque, New Mexico	United States	Social Welfare
173	New Mexico Office of the Medical Investigator	Albuquerque, New Mexico	United States	Behavioral/Mental Health, Medical Death Investigations
174	New Mexico Public Education Department College and Career Readiness Bureau	Santa Fe, New Mexico	United States	Education
175	New York Center for Kidney Transplantation, Inc dba NYKidney	New York	United States	Education, Nephrology, Transplants/Organ Donation
176	Northeast Kentucky Regional Health Information Organization dba Kentucky Rural Healthcare Information Organization	Morehead, Kentucky	United States	Chronic Disease, Substance Use Disorders
177	Northeast Ohio Medical Center DBA NEOMED: Ohio Alliance	Rootstown, Ohio	United States	Behavioral/Mental Health, Education, Primary Care, Psychiatry, Substance Use Disorders

178	Northern Ireland Hospice	Newtownabbey, Northern Ireland	United Kingdom	Palliative Care, Dermatology, Nursing/Care Homes, Chronic Pain
179	Northwest Portland Area Indian Health Board	Portland, Oregon	United States	Endocrinology/Diabetes, Hepatitis C, Infectious Disease, Substance Use Disorders
180	NYC Health + Hospitals Corp.	New York, New York	United States	Hematology, Quality Improvement, Behavioral/Mental Health, Substance Use Disorders
181	Ochsner Health System	Jefferson, Louisiana	United States	Gastroenterology, Rheumatology, Transplants/Organ Donation
182	Ohio Medical Directors Association	Ohio	United States	Geriatrics
183	OhioHealth Corporation	Columbus, Ohio	United States	Pediatrics, Reproductive Health, Substance Use Disorders, Women's Health
184	Oklahoma State University - Center for Health Sciences	Tulsa, Oklahoma	United States	Behavioral/Mental Health, HIV, Infectious Disease, Nutrition & Metabolic Diseases, Pediatrics, Psychiatry, Substance Use Disorders, Education, Hepatitis C
185	Oregon Health & Science University	Portland, Oregon	United States	Behavioral/Mental Health, Gastroenterology, Geriatrics, Neurology, Nursing/Care Homes, Quality Improvement, Substance Use Disorders, Cancer Prevention & Risk Reduction
186	Oregon Pediatric Society	Portland, Oregon	United States	Cancer Prevention & Risk Reduction, Cancer Screening, Infectious Disease, Pediatrics, Quality Improvement
187	OSFE - Obra Social Ferroviaria	Buenos Aires, Buenos Aires	Argentina	Rheumatology
188	Pain Relief and Palliative Care Society		India	Palliative Care
189	Pakistan Kidney and Liver Institute and Research Center	Lahore	Pakistan (پاکستان)	Hepatitis C, Infectious Disease
190	Parents Reaching Out	Albuquerque, New Mexico	United States	Developmental Disabilities, Social Welfare
191	Partners HealthCare	Boston, Massachusetts	United States	Substance Use Disorders
192	Partnership for Community Care Network	Greensboro, North Carolina	United States	Reproductive Health, Substance Use Disorders
193	Partnerships For Health	Augusta, Maine	United States	Community Health Workers, Immune Disorders
194	Penn State College of Medicine	Hershey, Pennsylvania	United States	Substance Use Disorders
195	Presbyterian Health Services	Albuquerque, New Mexico	United States	Behavioral/Mental Health, Pediatrics, Chronic Pain, Substance Use Disorders
196	Primary Health Care	Des Moines, Iowa	United States	Quality Improvement, Substance Use Disorders
197	Princess Alice Hospice	Esher, South East	United Kingdom	Behavioral/Mental Health, Endocrinology/Diabetes, Nutrition & Metabolic Diseases, Palliative Care, Pharmacy
198	Program in Occupational Therapy at Washington University in St. Louis	St. Louis, Missouri	United States	Hematology, Pediatrics
199	Rayos Contra Cancer		United States	Cancer Treatment
200	Reaching You- Ministry of Health and Population	Nasr City, Cairo	Egypt (مصر)	Cardiology, Hepatitis C, Infectious Disease, Pulmonary

201	Robert Wood Johnson Partners/Rutgers	New Brunswick, New Jersey	United States	Autism, Chronic Pain, Endocrinology/Diabetes, Pediatrics, Behavioral/Mental Health
202	Royal College of Surgeons in Ireland	Dublin, Leinster	Ireland	Rheumatology
203	Saginaw Valley State University	Michigan	United States	Substance Use Disorders
204	School-Based Health Alliance	Washington, District of Columbia	United States	Pediatrics
205	Siouxland Community Health Center	Sioux City, Iowa	United States	Endocrinology/Diabetes
206	Solidarity and Action Against The HIV Infection in India	Delhi	India	Pediatrics, Reproductive Health
207	Southern Africa Regional Colaborating Center - Africa CDC	Zambia	Zambia	Public Health
208	Southern Illinois University	Carbondale, Illinois	United States	Cardiology, Substance Use Disorders
209	St. Barnabas Hospice	Lincoln, East Midlands	United Kingdom	Nursing/Care Homes
210	St. Christopher's Hospice	London, Greater London	United Kingdom	Nursing/Care Homes
211	St. Columba's Hospice	Edinburgh, Edinburgh	United Kingdom	Nursing/Care Homes, Palliative Care
212	St. Helena Hospice	Colchester, East	United Kingdom	Nursing/Care Homes
213	St. Joseph's Hospital and Medical Center	Phoenix, Arizona	United States	Hepatitis C, Infectious Disease
214	St. Luke's Hospice	Sheffield, England	United Kingdom	Nursing/Care Homes, Palliative Care, Emergency Care
215	St. Luke's Hospice Plymouth	Turnchapel, Plymouth	United Kingdom	Nursing/Care Homes, Palliative Care
216	St. Margaret's Hospice	Bishops Hull, Taunton	United Kingdom	Palliative Care
217	St. Richard's Hospice		United Kingdom	Nursing, Palliative Care
218	St. Vincent's Hospital, Melbourne	Fitzroy, Victoria	Australia	Substance Use Disorders
219	Stanford University	Palo Alto, California	United States	Endocrinology/Diabetes
220	Strathcarron Hospice	Denny, Falkirk Council	United Kingdom	Nursing/Care Homes, Palliative Care
221	SUNY Upstate Medical University	Syracuse, New York	United States	Behavioral/Mental Health, Endocrinology/Diabetes, Geriatrics, Pediatrics
222	Tajik Institute for Postgraduate Education of Medical Staff		Tajikistan (Тоҷикистон)	HIV, Infectious Disease
223	Talent Development Secondary/Tides Center	Baltimore, Maryland	United States	Education
224	Tata Memorial Centre	Mumbai, Maharashtra	India	Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Treatment
225	Telligen	West Des Moines, Iowa	United States	Nursing/Care Homes
226	Texas A&M University System	College Station, Texas	United States	Business, Quality Improvement, Behavioral/Mental Health, Substance Use Disorders
227	Texas Tech University	Lubbock, Texas	United States	Palliative Care
228	The Ehlers-Danlos Society		United Kingdom	Chronic Disease, Rare Diseases, Tissue Injury/Disease
229	The Heartbeat Trust	Dun Laoghaire, Co Dublin	Ireland	Cardiology
230	The Hospital for Sick Children (SickKids)	Toronto, Ontario	Canada	Complex Care, Nutrition & Metabolic Diseases, Palliative Care, Pediatrics, Chronic Pain
231	The MetroHealth System	Cleveland, Ohio	United States	Primary Care
232	The Ministry of Health, Community Development, Gender, Elderly and Children - Tanzania	Dodoma, Dodoma	Tanzania	HIV, Infectious Disease, Laboratory Sciences, Tuberculosis
233	TMF Health Quality Institute	Austin, Texas	United States	Behavioral/Mental Health, Quality Improvement

234	Trinitas Regional Medical Center	Elizabeth, New Jersey	United States	Behavioral/Mental Health, Developmental Disabilities
235	Trinity Health	Livonia, Michigan	United States	Substance Use Disorders, Behavioral/Mental Health
236	Trivandrum Institute of Palliative Sciences	Thiruvananthapuram, Pallium	India	Palliative Care
237	Uganda Virus Research Institute	Entebbe, Central Uganda	Uganda	HIV, Infectious Disease
238	UMass Memorial Medical Group	Worcester, Massachusetts	United States	Hepatitis C, Infectious Disease, Tuberculosis
239	Ummeed Child Development Center	Mumbai, Maharashtra	India	Autism, Behavioral/Mental Health
240	United States Air Force Diabetes Center of Excellence	San Antonio, Texas	United States	Endocrinology/Diabetes, Military Health
241	Universidad Austral	Pilar, Buenos Aires	Argentina	Hepatitis C, Infectious Disease
242	Universidad Central de Venezuela	Ciudad Universitaria, Los Chaguaramos, Caracas	Venezuela	Pediatrics, Reproductive Health
243	Universidad de la Republica	Montevideo, Montevideo	Uruguay	Autism, Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Treatment, Cardiology, Chronic Disease, Geriatrics, Hematology, Hepatitis C, HIV, Immune Disorders, Infectious Disease, Neurology, Palliative Care, Pediatrics, Public Health, Rehabilitation
244	Universidad Panamericana	Mexico City	Mexico (México)	Behavioral/Mental Health, Chronic Disease, Psychiatry
245	University Health Network	Toronto, Ontario	Canada	Chronic Pain, Hepatitis C, Infectious Disease, Rheumatology, Substance Use Disorders
246	University of Alabama at Birmingham	Birmingham, Alabama	United States	Autism, Endocrinology/Diabetes, Pediatrics
247	University of Alaska Anchorage - Alaska's University Center of Excellence for Disabilities	Anchorage, Alaska	United States	Autism, Neurology, Behavioral/Mental Health
248	University of Alberta	Edmonton, Alberta	Canada	Autism
249	University of Arizona	Tucson, Arizona	United States	Rheumatology
250	University of Arkansas for Medical Sciences	Little Rock, Arkansas	United States	Substance Use Disorders
251	University of California Davis Department of Anesthesiology and Pain Medicine	Davis, California	United States	Chronic Pain
252	University of California San Francisco Medical Center	San Francisco, California	United States	Hepatitis C, Infectious Disease
253	University of California, Los Angeles	Los Angeles, California	United States	Substance Use Disorders
254	University of California-Irvine	Irvine, California	United States	Autism
255	University of Chicago	Chicago, Illinois	United States	Behavioral/Mental Health, Cancer Prevention & Risk Reduction, Cancer Screening, Cancer Survivorship, Cardiology, Complex Care, Geriatrics, Hepatitis C, Infectious Disease, Nutrition & Metabolic Diseases, Pediatrics, Psychiatry, Women's Health
256	University of Cincinnati	Cincinnati, Ohio	United States	Cardiology, Chronic Pain, Primary Care, Substance Use Disorders, Neurology

257	University of Colorado School of Public Health - Anschutz Medical Campus	Aurora, Colorado	United States	Behavioral/Mental Health, Cancer, Cancer Survivorship, Complex Care, Care Transitions, Domestic Violence, Education, Hepatitis C, Infectious Disease, Neurology, Nutrition and Metabolic Disease, Pediatrics, Tuberculosis
258	University of Florida	Gainesville, Florida	United States	
259	University of Hawaii	Honolulu, Hawaii	United States	Behavioral/Mental Health, Cancer, Endocrinology/Diabetes, Geriatrics
260	University of Idaho	Moscow, Idaho	United States	Behavioral/Mental Health, Substance Use Disorders
261	University of Kansas Medical Center	Kansas City, Kansas	United States	Autism, Cancer, Cancer Survivorship, Chronic Pain, Neurology, Nutrition & Metabolic Diseases, Pediatrics, Pulmonary, Substance Use Disorders
262	University of Kentucky	Lexington, Kentucky	United States	Cancer, Hepatitis C, Infectious Disease
263	University of Louisville	Louisville, Kentucky	United States	Cancer, Geriatrics, Palliative Care
264	University of Michigan	Ann Arbor, Michigan	United States	Domestic Violence, Neurology, Pediatrics
265	University of Minnesota	Minneapolis, Minnesota	United States	Behavioral/Mental Health, Cancer, Dental & Oral Health, Developmental Disabilities, Pediatrics
266	University of Mississippi Medical Center	Jackson, Mississippi	United States	Cancer
267	University of Nebraska Medical Center	Omaha, Nebraska	United States	Behavioral/Mental Health, Chronic Pain, Developmental Disabilities, Substance Use Disorders, Surgery
268	University of Nevada, Reno School of Medicine	Reno, Nevada	United States	Reproductive Health, Substance Use Disorders, Cardiology, Complex Care, Pediatrics, Substance Use Disorders, Behavioral/Mental Health, Education, Gastroenterology, Geriatrics, Public Health, Chronic Pain, Rheumatology, Sports Medicine, Endocrinology/Diabetes, Infectious Disease, Quality Improvement, Cancer Survivorship,
269	University of New Hampshire (NH Citizens Health Initiative)	Concord, New Hampshire	United States	substance use disorders
270	University of New Mexico	Albuquerque, New Mexico	United States	Behavioral/Mental Health, Cancer, Chronic Disease, Chronic Pain, Complex Care, Corrections, Domestic Violence, Education, Endocrinology/Diabetes, Hepatitis B, Hepatitis C, Health Workers, Infectious Disease, Indigenous Peoples' Health, Law Enforcement, Nursing/Care Homes, Neurology, Osteology, Pediatrics, Primary Care, Psychiatry, Quality Improvement, Reproductive Health, Rheumatology, Substance Use Disorders, Tuberculosis
271	University of New Mexico - Center for Development and Disability	Albuquerque, New Mexico	United States	Autism

272	University of New Mexico: Envision	Albuquerque, New Mexico	United States	Nutrition & Metabolic Diseases, Pediatrics, Pulmonary
273	University of North Carolina at Chapel Hill	Chapel Hill, North Carolina	United States	Cardiology, Substance Use Disorders
274	University of North Dakota School of Medicine and Health Sciences	Grand Forks, North Dakota	United States	Substance Use Disorders
275	University of Oklahoma Health Sciences Center	Oklahoma City, Oklahoma	United States	Hepatitis C, HIV, Infectious Disease
276	University of Pittsburgh	Pittsburgh, Pennsylvania	United States	Autism
277	University of Rochester Medical Center	Rochester, New York	United States	Autism, Behavioral/Mental Health, Geriatrics, Infectious Disease, Nutrition & Metabolic Disease, Nursing/Care Homes, Ophthalmology, Palliative Care, Primary Care, Quality Improvement, Wellness
278	University of Texas Health Science Center – San Antonio	San Antonio, Texas	United States	Substance Use Disorders, Community Health Workers, Hepatitis C, HIV, Infectious Disease
279	University of Texas MD Anderson	Houston, Texas	United States	Cancer Diagnosis, Cancer Prevention & Risk Reduction, Cancer Screening, , Chronic Disease, Cancer Survivorship, Community Health Workers, Hematology, Chronic Disease, Palliative Care, Cancer Treatment, Dermatology
280	University of Utah Health	Salt Lake City, Utah	United States	Autism, Gastroenterology, Reproductive Health, Behavior/Mental Health, Hepatitis C, Infectious Disease, Pediatrics
281	University of Vermont	Burlington, Vermont	United States	Cancer, Chronic Pain, HIV, Infectious Disease
282	University of Virginia Medical Center	Charlottesville, Virginia	United States	Cardiology, Hematology, Substance Use Disorders
283	University of Washington	Seattle, Washington	United States	Autism, Behavioral/Mental Health, Cardiology, Education, Geriatrics, Hepatitis C, HIV, Infectious Disease, Psychiatry, Public Health, Quality Improvement, Substance Use Disorders, Tuberculosis
284	University of Wisconsin School of Medicine and Public Health	Madison, Wisconsin	United States	Emergency Care, Pediatrics
285	University of Wyoming	Laramie, Wyoming	United States	Autism, Behavioral/Mental Health, Care Transitions, Developmental Disabilities, Education, Geriatrics, Nursing/Care Homes, Pediatrics, Quality Improvement
286	University Research Co., LLC - Center for Human Services	Bethesda, Maryland	United States	HIV, Infectious Disease, Quality Improvement, Tuberculosis
287	UNM Carrie Tingley Hospital	Albuquerque, New Mexico	United States	Behavioral/Mental Health, Pediatrics, Rehabilitation
288	Vanderbilt University	Nashville, Tennessee	United States	Autism
289	Veteran Affairs- Ann Arbor	Ann Arbor, Michigan	United States	Chronic Pain, Military Health
290	Veteran Affairs-Cleveland	Cleveland, Ohio	United States	Chronic Pain, Military Health
291	Veteran Affairs-Connecticut	Newington, Connecticut	United States	Chronic Pain, Military Health
292	Veteran Affairs-Eastern Colorado	Denver, Colorado	United States	Chronic Pain, Military Health

293	Veteran Affairs-Los Angeles	Los Angeles, California	United States	Chronic Disease, Chronic Pain
294	Veteran Affairs-Portland and Puget Sound	Portland, Oregon	United States	Chronic Pain, Military Health
295	Veteran Affairs-Richmond	Richmond, Virginia	United States	Chronic Pain, Military Health
296	Veteran Affairs-San Diego	San Diego, California	United States	Chronic Disease, Chronic Pain
297	Veteran Affairs-San Francisco	San Francisco, California	United States	Chronic Pain, Military Health
298	Vietnam National Children's Hospital	Hanoi	Vietnam (Việt Nam)	Radiology
299	Virginia Commonwealth University	Richmond, Virginia	United States	Chronic Pain, Hematology, Substance Use Disorders
300	Virginia Sexual and Domestic Violence Action Alliance	Richmond, Virginia	United States	Domestic Violence
301	Wake Forest University Baptist Medical Center	Winston-Salem, North Carolina	United States	Osteology
302	Washington State Department of Health	Seattle, Washington	United States	Infectious Disease, Tuberculosis
303	Wayside Recovery Center	Minneapolis, Minnesota	United States	Substance Use Disorders, Women's Health
304	West Virginia Clinical and Translational Science Institute - of West Virginia University	Morgantown, West Virginia	United States	Behavioral/Mental Health, Cardiology, Chronic Disease, Chronic Pain, Endocrinology/Diabetes, Hepatitis C, HIV, Infectious Disease, Psychiatry, Pulmonary, Substance Use Disorders
305	West/Northwest Hospitals Group	Galway, Connacht	Ireland	Endocrinology/Diabetes
306	Western New York Collaborative	Rochester, New York	United States	Chronic Pain, Substance Use Disorders
307	Wisconsin Department of Health Services	Madison, Wisconsin	United States	Substance Use Disorders
308	Yale University	New Haven, Connecticut	United States	Domestic Violence, Pediatrics

Project ECHO (Extension for Community Healthcare Outcomes)

Pain and Opioid ECHO Programs at the ECHO Institute

New Mexico's long history of intergenerational substance use and high overdose death rates has prompted the state and its flagship university to develop innovative, integrated strategies to address them. Faculty at the University of New Mexico Health Sciences Center (UNM-HSC) have led this pioneering work. This document enumerates their efforts and their impact.

Strategy 1: Professional and Community Education

Project ECHO® is a global movement that began 15 years ago at the University of New Mexico Health Sciences Center (UNM HSC). The ECHO model™ focuses on improving access to quality medical care and disseminating best practices to primary care practitioners in rural and underserved communities. ECHO uses telementoring to give participants access to specialty consultation, and case-based learning to ensure that participants can apply what they learn to their own practice settings. The model is deployed worldwide, and its success uniquely situates ECHO to mobilize in the face of increasing opioid deaths across the globe. In the last five years, the global ECHO movement has responded overwhelmingly to the opioid epidemic by standing up over 100 ECHO programs (see Appendix A) aimed at improving primary care for chronic pain, substance use, and opioid prescribing practices. As noted in the attached bibliography (Appendix B), ECHO has consistently increased practitioners' self-efficacy in treating pain and addiction and improved their adherence to opioid prescribing best practices.

The listing below enumerates the successful ECHO pain and substance use programs offered by the ECHO Institute™ at the University of New Mexico over the last five years. These programs each address at least one of the goals of combating the opioid crisis in the United States: improving chronic pain management, including the use of non-opioid pain management strategies; improving screening for opioid use disorder (OUD); increasing access to medication assisted treatment (MAT); and teaching opioid harm reduction strategies, such as naloxone co-prescribing. Each teleECHO™ session disseminates current best practices, and each offers continuing medical education (CME) credits.

1. **Integrated Addictions & Psychiatry ECHO (IAP) Launched** in 2005, this was the first addiction and behavioral health-focused ECHO. Dr. Miriam Komaromy convened a unique hub of addiction experts, psychologists, social workers and primary care clinicians to train primary care teams to care for patients with opioid use disorder and IAP ECHO continues to provide DATA waiver training. This program has trained over 60 opioid ECHOs throughout the US and globally to replicate this best practices approach.
2. **Pain and Opioid Management ECHO** This original ECHO Pain program was created by Dr. Joanna Katzman in 2008. A multidisciplinary hub team which includes internal medicine, addiction psychiatry, neurology, behavioral health, and physical therapy and chiropractic care practitioners models a whole-person team approach to pain management. Pain ECHO has been replicated by the Department of Defense (DOD), the Veterans Health Administration (VA), the Indian Health Service (IHS), the Ontario, Canada provincial government and many other academic medical centers and countries. In 2012, New Mexico passed legislation mandating that all clinicians obtain continuing medical education in pain and opioid use disorder. Pain and addiction CME is now required in 33 other states and in federal agencies. Pain ECHOs at multiple hub sites allow clinicians to meet these CME requirements.

3. **Primary Care Pain Solutions ECHO:** In June of 2018 the Pain and Opioid Management ECHO faculty piloted an ECHO for the El Centro Family Health Center (ECFH) based in northern New Mexico. ECHO Pain telementoring is part of a multi-element quality improvement strategy to align ECFH providers' opioid prescribing with HEDIS measures and CDC guideline The Centers for Disease Control and Prevention (CDC) plan to fund the ECHO Institute to expand and evaluate this approach.
4. **Medication Assisted Treatment ECHO:** In 2018, UNM HSC received federal funding to launch an MAT ECHO and study its impact. Co-led by addiction psychiatrists Drs. Julie Griffin-Salvador and Snehal Bhatt, this ECHO serves New Mexico primary care clinicians and focuses on training clinician to become more comfortable with using buprenorphine to treat their patients with OUD. The study tracks how many clinicians receiving DATA waivers actually use them to provide such care.
5. **National Community Health Worker (CHW) and Medical Assistant (MA) Opioid ECHO:** The national CHW/MA Opioid ECHO began in 2017 and has successfully trained 149 CHWs and MAs to work with patients with Opioid Use Disorder (OUD). This curriculum and hub team are designed to address a broad range of community-level interventions, including the social determinants of addiction, motivational interviewing, and provision of socio-emotional support within the CHW/MA scope of work. Nearly 95 percent of participants reported they learned a new skill, and 85.3 percent reported changing an aspect of how they care for patients because of the ECHO program. This program has provided extensive training and support to CHWs to equip them to respond to the opioid crisis across New Mexico and the United States. Participants from multiple states regularly attend.
6. **Opioid ECHO Research Collaborative:** The Opioid ECHO Research Collaborative convenes ECHO hubs, interested organizations, funders, and state agencies to better understand how the ECHO model is used to increase access to OUD treatment and improve opioid stewardship. On this platform participants share research designs, evaluation resources, and funding opportunities while starting conversations with the virtual community about different aspects of opioid-focused ECHO programs. As of Dec 2018, over 350 members participate, all with an interest in demonstrating the impact of opioid- and chronic pain-focused ECHO education.
7. **Indian Health Service (IHS) Hands-On Pain Skills and Medication Assisted Treatment (MAT) Trainings:** Two to three times a year the ECHO Pain and Opioid Management team travels in person to a different Indian Health Service region around the country to provide much needed pain skills and DATA waiver training. To date, trainings have occurred in Albuquerque, New Mexico, Spokane, Washington, Oklahoma City, Oklahoma, and Bemidji, Minnesota. The pain faculty were awarded the 2018 National Indian Health Service "Fostering Relationships" for teaching clinicians throughout Indian Country Best Practices Pain and Addiction education since 2015.
8. **Pre-licensure education:** UNM HSC/ECHO Institute faculty Drs. Joanna Katzman and Snehal Bhatt are the co-medical Directors for a novel SMHSA Provider Clinical Support Services grant that provides buprenorphine DATA waiver training to *all* pre-licensure students in UNM HSC's medical school, nursing school and physician assistant programs.

In summary, the ECHO Institute and UNM HSC medical faculty provide wrap-around clinician education in pain management, safe opioid prescribing and opioid use disorder screening and treatment to clinicians in New Mexico and the U.S. This strategy ensures that current and future clinicians will be well equipped to manage chronic pain and prevent the consequences of problem opioid use.

Strategy 2: Clinical Care for Pain and Addiction

UNM HSC's **Pain Consultation and Treatment Center (PCTC)** provides interdisciplinary pain care for patients with conditions associated with persistent pain. Dr. Joanna Katzman, ECHO Sr. Associate Director, was PCTC's founding medical director. The clinic is staffed by a multidisciplinary team that includes anesthesiologists, internists, family practitioners, neurologists, psychiatrists, physical and occupational therapists, psychologists and counselors, chiropractors, pharmacists, surgeons, physician and nurse pain specialists. The PCTC provides comprehensive assessment of pain syndromes, and pain relief recommendations may include conservative approaches, such as physical therapy, biofeedback, dry needling, chiropractic services, behavioral health care and integrative medicine. In addition, PCTC offers Interventional care, such as steroid injections, nerve blocks, radiofrequency ablation, or minimally invasive surgery. In addition, UNM HSC operates a Center for Spine Health and a Pediatric Pain Management Clinic.

For addiction and recovery care, UNM HSC operates a comprehensive adult and adolescent addiction treatment clinic, ASAP. ASAP services include ambulatory alcohol and drug detoxification, opioid replacement therapy, suboxone, individual and group counseling, and a primary care, preventive medicine practice for patients being treated for substance use disorders (SUD). UNM operates a separate prenatal clinic for pregnant women with SUD. Dr. Snehal Bhatt is chief of Addiction Psychiatry, and a faculty member in the Chronic Pain, IHS and MAT ECHO programs.

Strategy 4: Clinical and Educational Research

UNM HSC and ECHO Institute faculty are partners in multiple research initiatives designed to improve pain and addiction care, and to assess the impact of telementoring on clinician prescribing practices, self-efficacy and willingness to treat. The PCTC and ASAP clinics are conducting a joint prospective research study on the impact of providing take-home naloxone to patients being discharged from treatment for OUD. In addition, ECHO faculty have begun to initiate research in quality improvement in pain and addiction treatment. Appendix B offers a sampling of published research.

Strategy 5: Public Policy Development and Implementation

ECHO/UNM HSC Faculty serve on state and federal advisory bodies addressing the pain and opioid crises.

- New Mexico Governors Council for Opioid Misuse, Abuse and Pain Management: Since 2012, Dr. Katzman and Ernie Dole, Pharm D, have represented UNM and Project ECHO on this monthly state-wide task force.
- Bernalillo County Addiction Advisory Committee: Drs. Bhatt, Katzman and Komaromy are all members of the committee that meets bi monthly to discuss how to improve the opioid crisis response in New Mexico's largest county.
- U.S. Food and Drug Administration: Dr. Katzman serves as a Special Governmental Employee on the Analgesics and Anesthetics and Epidemiology Committee regarding pain and opioids.
- Dr. Katzman helped to craft novel legislation (Senate Bill 370) which passed unanimously in the NM House and Senate. SB 370 mandates the all patients in an Opioid Treatment program receive opioid overdose education and 2 doses of naloxone, that all inmates leaving a correctional facility also receive opioid overdose education and 2 doses of naloxone, and that all police officers in New

Mexico have 2 doses of naloxone with them at all times while on duty. New Mexico has dropped from # 9 in 2016 the US for opioid overdose to # 18 in 2019.

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Appendix A – Worldwide OUD & Pain ECHOs

Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Opioid ECHO for Community Health Workers and Medical Assistants	University of New Mexico	Albuquerque, New Mexico - United States	Open to All
New Mexico Prison Peer Education Program (NMPEP)	University of New Mexico	Albuquerque, New Mexico - United States	Open to All
Chronic Pain	University of New Mexico	Albuquerque, New Mexico - United States	Open to All
Opioid Addiction ECHO - NM Opioid STR CHW	University of New Mexico	Albuquerque, New Mexico - United States	Open to All
Pain ECHO - Central	Army - Regional Health Command - Central	Fort Sam Houston, Texas - United States	Military
Pain ECHO - Atlantic	Army - Regional Health Command- Atlantic	Fort Bragg, North Carolina - United States	Military
Pain ECHO - Europe	Army - Regional Health Command- Europe	Kaiserslautern, Bundesland - Germany (Deutschland)	Military
Pain ECHO - Pacific	Army - Regional Health Command- Pacific	Honolulu, Hawaii - United States	Military
Project ECHO Opioid Use Disorder CT	Beacon Health Options	Connecticut - United States	Open to All
Mental Health & Addictions	Billings Clinic	Billings, Montana - United States	
Opioid Addiction Treatment	Billings Clinic	Billings, Montana - United States	
Massachusetts OBAT ECHO (MA OBAT ECHO)	Boston Medical Center	Boston, Massachusetts - United States	Local state/province/region
Opioid Review and Medication Assisted Treatment	Catholic Health Initiatives St. Gabriel's Health	Little Falls, Minnesota - United States	Open to All
Addiction Medicine and Psychosocial Interventions	Centre for Addiction and Mental Health	Toronto, Ontario - Canada	Open to All
Mental Health & Addictions	Centre for Addiction and Mental Health	Toronto, Ontario - Canada	Open to All

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Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Chronic Pain	Centre Hospitalier de Universite de Montreal	Montreal, Quebec - Canada	Open to All
Pediatric Persistent Pain	Children's Health Queensland Hospital and Health Service	Brisbane, Queensland - Australia	
Acute & Chronic Pain	Community Health Center Association of Connecticut, Inc.	Cheshire, Connecticut - United States	Open to All
Opioid Addiction - Buprenorphine	Community Health Center, Inc.	Middleton, Connecticut - United States	Open to All
Chronic Pain	Community Health Center, Inc.	Middleton, Connecticut - United States	Open to All
SBIRT TeleECHO	George Mason University	Fairfax, Virginia - United States	
Medication Assisted Treatment for Opioid Use Disorder	Health Choice Integrated Care, LLC (i.e. Steward Health Choice Arizona)	Flagstaff, Arizona - United States	Open to All
Integrated Opioid and Addiction Care	Hennepin Healthcare System, Inc.	Minneapolis, Minnesota - United States	Open to All
Addiction Medicine	Hennepin Healthcare System, Inc.	Minneapolis, Minnesota - United States	Open to All
Opioid Use Disorder ECHO	Indiana University	Bloomington, Indiana - United States	Open to All
Opioid Use Disorder ECHO Program	Indiana University School of Medicine	Indianapolis, Indiana - United States	Open to All
Lake Superior QIN Behavioral Health teleECHO Program	Lake Superior Quality Innovation Network	Madison, Wisconsin - United States	
Community Opioid Overdose Response	Maine Quality Counts DBA Northern New England Network	Manchester, Maine - United States	Local state/province/region
NNE MAT ECHO	Maine Quality Counts DBA Northern New England Network	Manchester, Maine - United States	Open to All

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Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Addiction - Compassionate Tapering	Maine Quality Counts DBA Northern New England Network	Manchester, Maine - United States	Open to All
Substance Use and Exposure During the Perinatal Period	Maine Quality Counts DBA Northern New England Network	Manchester, Maine - United States	Local state/province/region
Building Clinician Leadership: Opioid Epidemic	Maine Quality Counts DBA Northern New England Network	Manchester, Maine - United States	Open to All
Addiction Medicine	Maniilaq Association	Kotzebue, Alaska - United States	Open to All
Opioid Use Disorder Tele-Mentoring and Educational Sessions	Medical University of South Carolina	Charleston, South Carolina - United States	Local state/province/region
Opioid Use Disorder	Missouri Telehealth Network	Columbia, Missouri - United States	
Pain Management	Missouri Telehealth Network	Columbia, Missouri - United States	
Addiction Medicine and Chronic Pain	MNI Great Lakes	Grand Blanc, Michigan - United States	Open to All
Montefiore Project ECHO Opioid Use Disorder Treatment for Behavioral Health Providers	Montefiore Health System, Inc.	New York City, New York - United States	Local state/province/region
Montefiore Project ECHO Opioid Use Disorder Treatment	Montefiore Health System, Inc.	New York City, New York - United States	Local state/province/region
VKN NIMHANS ECHO Digital Course: Foundation of Addiction Management (FOAM)	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Counsellors, Doctors, Psychologists & Social Workers
Foundation of Addiction (ECHO Digital Course)	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors, Counsellors, Psychologists & Social Workers
Bihar Drug ECHO III for Doctors	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors
Bihar Drug ECHO for Counsellors (Level 2)	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Counselors
Advanced Addiction Psychiatry	National Institute for Mental Health and Neurosciences	New Delhi, Delhi - India	Residents

Project ECHO® (Extension for Community Health Outcomes)

Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Chhattisgarh Integrated Mental Health & Addiction ECHO for Counsellors	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Psychologists, Social Workers & Counselors
Bihar Drug ECHO for Counsellors	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Counsellors
Chhattisgarh Integrated Mental Health & Addiction ECHO for Doctors (Batch-1) (Blended Certificate)	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors
Bihar Drug ECHO II for Doctors	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors
Road 2 Recovery	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors, Counselors, Psychologists & Social Workers
Addiction Mental Health	National Institute for Mental Health and Neurosciences	Bangalore, Karnataka - India	Doctors, Counsellors, Psychologists & Social Workers
ECHO Pain	Navy Medicine East-Naval Medical Center	Portsmouth, Virginia - United States	Military
Pain ECHO	Navy Medicine West-Naval Medical Center	San Diego, California - United States	Military
Opioid Addiction Prevention & Treatment	Northeast Kentucky Regional Health Information Organization	Morehead, Kentucky - United States	
Ohio Opiate Continuing Education ECHO	Northeast Ohio Medical Center DBA NEOMED: Ohio Alliance	Rootstown, Ohio - United States	Local state/province/region
Ohio Opiate ECHO Prescriber Mentor	Northeast Ohio Medical Center DBA NEOMED: Ohio Alliance	Rootstown, Ohio - United States	Local state/province/region
Pain in Palliative Care	Northern Ireland Hospice	Newtownabbey, Northern Ireland - United Kingdom	
Opioid Use Disorder - Buprenorphine	NYC Health + Hospitals Corp.	New York, New York - United States	Open to All



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Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Project ECHO Substance Use Disorder in Pregnancy TeleECHO Series	OhioHealth Corporation	Columbus, Ohio - United States	Local state/province/region
Project ECHO Chronic Pain TeleECHO Series	OhioHealth Corporation	Columbus, Ohio - United States	Local state/province/region
Addiction Medicine	Oklahoma State University - Center for Health Sciences	Tulsa, Oklahoma - United States	Open to All
Addiction Medicine	Oregon Health & Science University	Portland, Oregon - United States	Open to All
Chronic Pain and Opioid Use Disorder	Oregon Health & Science University	Portland, Oregon - United States	Local state/province/region
Substance Use Disorders	Partners HealthCare	Boston, Massachusetts - United States	Open to All
Substance Use in Pregnancy	Partnership for Community Care Network	Greensboro, North Carolina - United States	Open to All
Penn State Project ECHO Opioid Use Disorder	Penn State College of Medicine	Hershey, Pennsylvania - United States	Local state/province/region
Pain & Addictions	Presbyterian Health Services	Albuquerque, New Mexico - United States	Open to All
Medication Assisted Treatment	Primary Health Care	Des Moines, Iowa - United States	Open to All
Chronic Pain	Robert Wood Johnson Partners/Rutgers	New Brunswick, New Jersey - United States	Open to All
Saginaw Valley State University Substance Use Disorder ECHO	Saginaw Valley State University	Saginaw, Michigan - United States	
Opioid Use Disorder	Southern Illinois University	Carbondale, Illinois - United States	Open to All
Chronic Pain and Opioid Stewardship	St. Joseph's Care Group	Thunder Bay, Ontario - Canada	Open to All
Chronic Pain and Opioids (SJCG/TOH)	St. Joseph's Care Group	Thunder Bay, Ontario - Canada	Open to All
Chronic Pain and Opioids (SJCG/TOH)	St. Joseph's Care Group	Thunder Bay, Ontario - Canada	Open to All
Opioid Use Disorder	St. Vincent's Hospital, Melbourne	Fitzroy, Victoria - Australia	Open to All

Project ECHO® (Extension for Community Health Outcomes)

Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Pediatric Pain Management (Acute & Chronic Pain)	The Hospital for Sick Children (SickKids)	Toronto, Ontario - Canada	
TIPS ECHO Palliative Care - "Multimodal Approach to Pain Management"	Trivandrum Institute of Palliative Sciences	Trivandrum, Kerala - India	Doctors
TIPS ECHO Palliative Care - Treat that Pain	Trivandrum Institute of Palliative Sciences	Trivandrum, Kerala - India	Doctors, Nurses, Physiotherapists, Social Workers
ECHO Pain Management TeleMentoring	UC Davis Department of Anesthesiology and Pain Medicine	Davis, California - United States	community-based, primary care clinicians
Chronic Pain and Opioid Stewardship	University Health Network	Toronto, Ontario - Canada	Local state/province/region
Opioid Use Disorder	University of Arkansas for Medical Sciences	Little Rock, Arkansas - United States	
Substance Use Disorders	University of California, Los Angeles	Los Angeles, California - United States	Local state/province/region; any health team member welcome
Opioid Use Disorder	University of Chicago	Chicago, Illinois - United States	Open to All
ECHO Medication Assisted Treatment	University of Cincinnati	Cincinnati, Ohio - United States	
ECHO Chronic Pain	University of Cincinnati	Cincinnati, Ohio - United States	Open to All
Opioid Addiction and Treatment	University of Idaho	Moscow, Idaho - United States	Local state/province/region (Idaho)
Opioid Use Disorder	University of Kansas Medical Center	Kansas City, Kansas - United States	
Pain Management 2018	University of Kansas Medical Center	Kansas City, Kansas - United States	
Opioid Use Disorder	University of Kansas Medical Center	Kansas City, Kansas - United States	
Pain and Substance Use Disorder	University of Nebraska Medical Center	Omaha, Nebraska - United States	
Opioid Use Disorder in Pregnant Women	University of Nevada	Reno, Nevada - United States	
Medication Assisted Treatment ECHO	University of Nevada	Reno, Nevada - United States	



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Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
Pain Management	University of Nevada	Reno, Nevada - United States	
ABC MAT ECHO	University of North Carolina at Chapel Hill	Chapel Hill, North Carolina - United States	
Project ECHO for Medication Assisted Treatment	University of North Carolina at Chapel Hill	Chapel Hill, North Carolina - United States	
Addiction Medicine	University of North Dakota School of Medicine and Health Sciences	Grand Forks, North Dakota - United States	Open to All
Opioid, Addiction & Pain	University of Utah Health	Salt Lake City, Utah - United States	Open to All
Opioid Addiction Clinic	University of Virginia Medical Center	Charlottesville, Virginia - United States	Local state/province/region
Chronic Pain	Veteran Affairs- Ann Arbor	Ann Arbor, Michigan - United States	Open to All
Chronic Pain	Veteran Affairs- Cleveland	Cleveland, Ohio - United States	Open to All
Chronic Pain	Veteran Affairs- Connecticut	Newington, Connecticut - United States	
Chronic Pain	Veteran Affairs- Eastern Colorado	Denver, Colorado - United States	Open to All
Chronic Pain	Veteran Affairs-Los Angeles	Los Angeles, California - United States	
Chronic Pain	Veteran Affairs- Portland and Puget Sound	Portland, Oregon - United States	Open to All
Chronic Pain	Veteran Affairs- Richmond	Richmond, Virginia - United States	Open to All
Chronic Pain	Veteran Affairs-San Diego	San Diego, California - United States	Open to All
Chronic Pain	Veteran Affairs-San Francisco	San Francisco, California - United States	Open to All



Project ECHO® (Extension for Community Health Outcomes)

Program Name	Host Hub (<i>bold indicates Superhub</i>)	Location	Types of Spokes
SCCoPE- Sickle Cell Community Physician Exchange	Virginia Commonwealth University	Richmond, Virginia - United States	Local state/province/region
Virginia Opioid Addiction ECHO	Virginia Commonwealth University	Richmond, Virginia - United States	Open to All
Addiction Medicine	Wayside Recovery Center	Minneapolis, Minnesota - United States	Anyone serving women experiencing OUD/SUD.
Women Services ECHO	Wayside Recovery Center	Minneapolis, Minnesota - United States	Anyone serving women experiencing OUD/SUD.
Project ECHO Medication Assisted Treatment	West Virginia CTSI of West Virginia University	Morgantown, West Virginia - United States	Local state/province/region
Project ECHO Chronic Pain	West Virginia CTSI of West Virginia University	Morgantown, West Virginia - United States	Local state/province/region
Chronic Pain, Opiate Prescription, Medication Assisted Treatment and Substance Use Disorder	Western New York Collaborative	Rochester, New York - United States	Open to All
Opioid Use Disorder	Wisconsin Department of Health Services	Madison, Wisconsin - United States	Open to All

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Appendix B – Selected Bibliography of ECHO Pain & SUD Research

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Project ECHO® (Extension for Community Health Outcomes)

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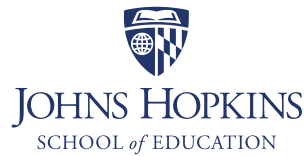
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August 30, 2019

Brock Prize in Education Innovation
2021 S. Lewis, Suite 415
Tulsa, OK 74104-5733

To whom it may concern:

I am writing to convey my enthusiastic support for Dr. Sanjeev Arora's nomination for the 2020 Brock Prize in Education Innovation. I have witnessed first-hand the power and potential of the ECHO model to transform education and provide training and mentorship to educators to improve school performance and student outcomes.

I first learned of Project ECHO through my work with the Talent Development Secondary, a nonprofit dedicated to improving education and ensuring that every student graduates high school ready for college, career, and civic life. TDS has utilized my research in education and developed the Early Warning System (EWS), a predictive based model that uses student data (attendance, behavior, and course performance) to identify students at-risk for dropping out of school, and develops a customized and targeted intervention plan to support each students' success. TDS collaborated with the New Mexico Public Education Department to train New Mexico schools on implementing EWS to support students' progress and keep students on track for graduation, and they introduced me to Dr. Arora and Project ECHO. Through the ECHO model, we have found an effective and cost-efficient way to bring the EWS training and model to multiple schools and scale across the country, helping more schools prepare their students for educational success.

In the past year, EWS ECHO has assisted New Mexico schools in underserved and low-income areas to address challenges they face in student attendance, behavior, and course performance. By using the ECHO model, EWS ECHO provides the opportunity for schools to learn virtually, receive training, collaborate, and build their capacity to better serve their students. EWS ECHO has been implemented in 25 schools across the state of New Mexico with more than 60 participants, and we are planning to expand to additional schools in the coming year. Collaborating with Dr. Arora has profoundly changed EWS and its ability to have a broad impact on countless students.

The ECHO model for education is one of the most exciting innovations in the field of education today, and could improve teacher training in communities across the U.S. that lack regular access to teacher support and training programs. This is why I fully support Dr. Arora's nomination for this exciting opportunity.

Sincerely,

A handwritten signature in black ink that reads "Robert Balfanz".

Robert Balfanz, PhD
Professor, Johns Hopkins University School of Education
Director, Everyone Graduates Center



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KARA BOBROFF
INTERIM SECRETARY OF EDUCATION

MICHELLE LUJAN GRISHAM
GOVERNOR

August 30, 2019

Brock Prize in Education Innovation
2021 S. Lewis, Suite 415
Tulsa, OK 74104-5733

To Whom It May Concern:

I am honored to write this letter in support of Dr. Sanjeev Arora, Distinguished Professor of Medicine and the Founder and Director of Project ECHO at the University of New Mexico Health Sciences Center, for the 2019 Brock International Prize in Education.

I am the Director of the College and Career Readiness Bureau at the New Mexico Public Education Department (NMPED), and responsible for the statewide ECHO for Education program. I first learned of Project ECHO last year when developing a Career Readiness Handbook to support teachers and school counselors. Project ECHO was proposed as a potential way to train teachers and school counselors to provide career readiness courses and training in areas of New Mexico where resources are limited. Project ECHO uses technology to connect expert healthcare specialists with providers in rural and underserved communities, so that local providers learn best practice care to better serve their own patients. This reduces wait lists for specialists, specialist referrals, travel time, and improves patients' access to high-quality health care services in their own communities.

New Mexico is a resource-poor, underserved state, and educators in rural areas face barriers in accessing teacher training, mentors, and support. We applied the ECHO model to education in New Mexico to address these barriers starting in early 2018. The goal of the New Mexico ECHO for Education (NMEE) network is to increase and advance opportunities for students to improve their personal pathways to college and careers. The project links participants together in a virtual community of practice so that they can apply their new knowledge in classrooms to help students and improve graduation rates. Educators in the first ECHO programs shared that the knowledge and expertise gained through the NMEE network was satisfying to their professional careers and

valuable to their students. One participant described it as the best continuing education experience she has ever had. After a successful pilot, we are excited to move forward and launch new networks in New Mexico dedicated to Career Technical Education, Teacher Pipeline programs, math literacy, and more.

We are thrilled to be continuing our collaboration with Dr. Arora and Project ECHO, and eager to expand our work and bring more ECHO programs to serve teachers in New Mexico. The ECHO model is truly a game changing innovation in education. It is for these reasons that I believe Dr. Sanjeev Arora is the ideal candidate for the 2020 Brock Prize in Education Innovation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Elaine Perea". The signature is fluid and cursive, with a large initial "E" and "P".

Elaine Perea, PhD, Director
College and Career Readiness Bureau
New Mexico Public Education Department

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August 30, 2019

Brock Prize in Education Innovation
2021 S. Lewis, Suite 415
Tulsa, OK 74104-5733

Dear Prize Selection Committee:

I am writing to support the nomination of Dr. Sanjeev Arora, Distinguished Professor of Medicine and the Founder and Director of Project ECHO, for the 2020 Brock Prize in Education Innovation. Project ECHO is an innovative and groundbreaking model that is transforming education around the world.

Project ECHO (Extension for Community Healthcare Outcomes) is an educational and mentoring model that is reducing healthcare disparities in underserved areas by providing front-line clinicians and educators with knowledge and support. It connects experts and specialists with local health care providers working in communities where access to specialist-level care is scarce, and enables local providers to build their skills and knowledge to better treat patients with complex, chronic conditions. ECHO not only moves knowledge to rural communities, but also develops a lasting relationship between specialists, primary care clinicians, and other community leaders.

As the Vice Principal of Ambience Public School in New Delhi, a private school that serves 1,350 students, under Dr Arora's guidance and mentorship I started the first Education ECHO in 2015. The school became the first mainstream educational institution to employ the ECHO model to mentor teachers. In the first ECHO Teacher Mentorship Program, the ECHO model was adapted to build the capacity of and provide mentorship to teachers by leveraging technology to reach underserved areas. After the success of the first Education ECHO, we expanded the program to various other topics, and now have eleven successful ECHO programs in education. In my current role as Principal of Ambience Public School, Gurugram, I have migrated these clinics to the new institution. The ECHO model has proven its success in the medical field, and is an ideal mentoring model that can be successfully used to not just improve skill sets of teachers, but also to provide professional support and improve their joy of work. As teachers become more confident and well informed about best practices, our children are more likely to succeed.

I have personally known and worked with Dr. Arora for many years, and his humanitarian vision to provide service to the underserved through the ECHO mentoring model is unsurpassed by anyone else I have known. He works tirelessly to improve the lives of others and to bring about systems change. I am proud to know him as my mentor and friend. I strongly support the nomination of Dr. Arora and the ECHO for Education model for the 2020 Brock Prize in Education Innovation. It is only through efforts such as his that we can continue to fulfill our vision to improve education models throughout the world.

Sincerely,

Principal
Dr. Anuradha Raj, MA, Bed, D Litt
Ambience Public School, Gurgaon
Principal
Plot No. 1, Sector-43, Gurgaon-122002
Ambience Public School, Gurugram



August 30, 2019

Brock Prize in Education Innovation
2021 S. Lewis, Suite 415
Tulsa, OK 74104-5733

Dear Members of the 2020 Brock Prize in Education Innovation:

I am delighted to write a letter of support for the nomination of Dr. Sanjeev Arora for the 2020 Brock Prize in Education Innovation. Under his visionary leadership of Project ECHO at the University of New Mexico, the ECHO movement has grown exponentially—now serving thousands of learners in 49 U.S. states and 37 countries. The application of the ECHO model to education is an exciting opportunity to transform educator training and mentorship, leading to better outcomes for students.

Project ECHO is a movement to demonopolize knowledge and amplify the capacity to provide best practice care for underserved people all over the world. This low-cost, high-impact intervention is accomplished by linking expert inter-disciplinary specialist teams with multiple primary care clinicians, or rural educators, simultaneously through teleECHO clinics. During the regularly scheduled teleECHO clinics, experts mentor and share their expertise via case-based learning, enabling participants to treat patients or provide specialty education in their own communities.

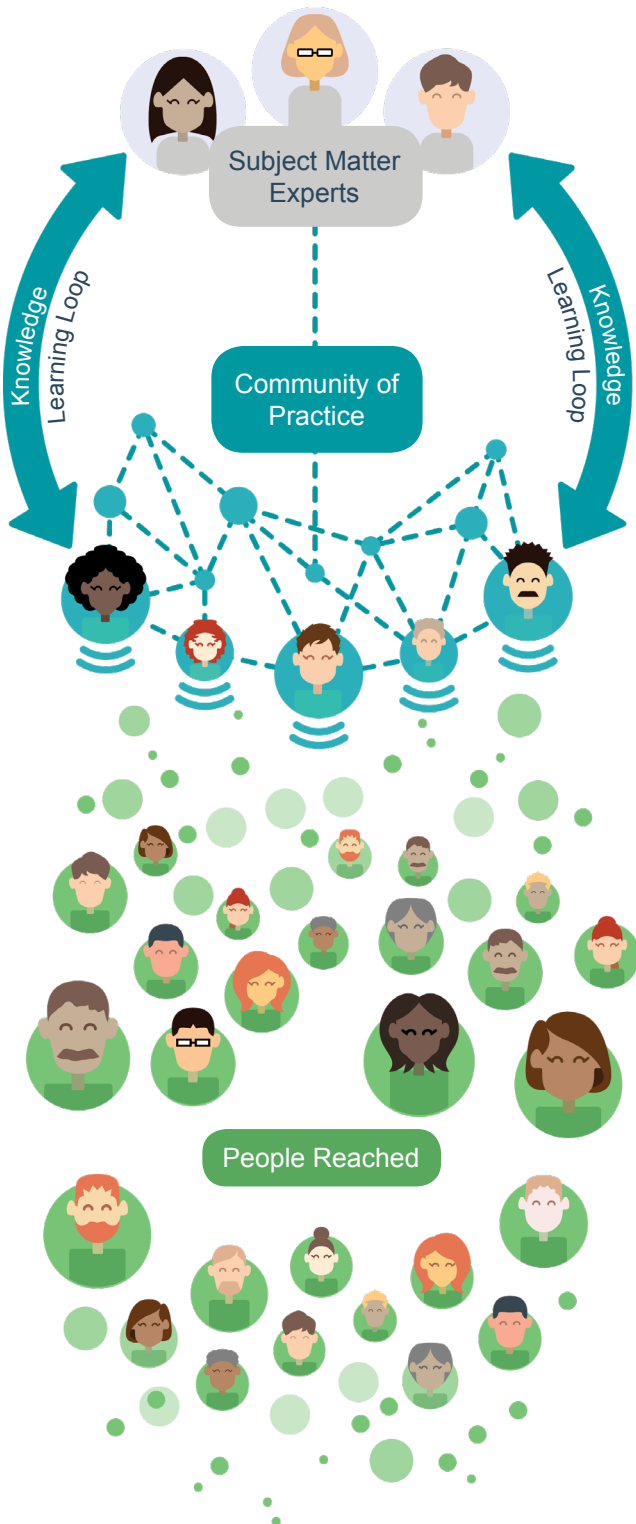
Dr. Arora has been my colleague and mentor since 2014. In my position as Director of Community Education and Training at the Wyoming Institute for Disabilities (WIND), Dr. Arora helped me translate the ECHO model from its origins in healthcare capacity building to support of professionals in the field of educational assistive technologies for students with disabilities. Five years later, UW ECHO in Education is training educators in assistive technology, autism, early childhood, and student health. The UW ECHO in Education networks provide ongoing support for professionals working with students in the PreK-12 setting by offering consistent virtual professional development, specific program planning and evidence-based strategies, allowing participants a real-time option to learn about and share best practices. The ECHO model provides an ideal forum for discussion and coaching opportunities with an interdisciplinary group of highly skilled educators and professionals to build capacity and use of best practices to improve classroom, school, district, and student outcomes.

Dr. Arora's inspired guidance and passion for democratizing knowledge to improve outcomes for the underserved make him a perfect candidate for the 2020 Brock Prize in Education Innovation. Please do not hesitate to contact me if you have any questions about this letter. I wholeheartedly support Dr. Arora for this prestigious award.

Sincerely,

Canyon Hardesty
Director, Community Education and Training
Wyoming Institute for Disabilities
University of Wyoming

The ECHO Model[™]



Moving Knowledge, Not People

Project ECHO (Extension for Community Healthcare Outcomes) is a movement to demopolize knowledge and amplify the capacity to provide best practice care for underserved people all over the world. The ECHO model is committed to addressing the needs of the most vulnerable populations by equipping communities with the right knowledge, at the right place, at the right time.

Four Principles of the ECHO Model



Use Technology to leverage scarce resources



Share “best practices” to reduce disparities



Apply case-based learning to master complexity



Evaluate and monitor outcomes

Benefits of Becoming a Part of the ECHO community



Access Communities



Reduce Disparities



Promote Consistency



Rapid Dissemination



Increase Professional Knowledge



Isolation Decrease

Hub and Spoke Model

All Teach – All Learn

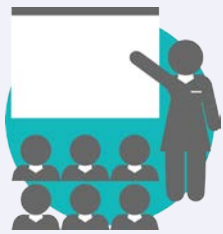
- Educators learn from Hub team
- Educators learn from each other
- Hub learn learns from educators
- Hubs and Spokes share best practices



Education ECHO Examples

- Assistive Technology
- School Leadership
- Student Health
- College/career Readiness
- Teaching English and Math
- Teacher Pipeline
- Early Childhood Education

Supporting Educators – Impacting Students



Students

- Benefit from ECHO supported educators using evidence-based, state of the art tools and curricula



Educators

- Access Mentoring and Networking
- Develop Communities of Practice
- Participate in Case-Based Problem Solving
- Receive Continuing Education Credits
- Decrease Isolation



Communities

- Address Local Educational Needs
- Attract and Retain Educators
- Support Workforce Development



Systems

- Improve Access to Education for All
- Reduce Disparities
- Improve cost effectiveness

Improving Education



Sharing Knowledge

Participants share knowledge, experience and best practices to improve outcomes for all



Creating Virtual Learning Communities

Educators develop a virtual community of practice to help each other address challenges



Leveraging Technology

Participants use technology to decrease cost of collaboration

Additional Resources

[Curriculum Vitae – Sanjeev Arora, MD, MACP, FACG](#) (19 pages)

[Project ECHO Bibliography](#) (29 pages)