

Connecting the science of modern medicine with the wisdom and care of a community

## THE PROBLEM

Rapidly advancing health care technology, innovation, and science.

Current system prevents patients and families, clinicians, and researchers from working together on what matters most to them.

Fails to deliver best possible outcomes, despite very high costs.

It doesn't have to be this way.

## THE SOLUTION

Learning Health Networks are demonstrably saving thousands of lives, helping hundreds of thousands of patients and families, cutting hundreds of millions in costs, and accelerating research by more than a decade.

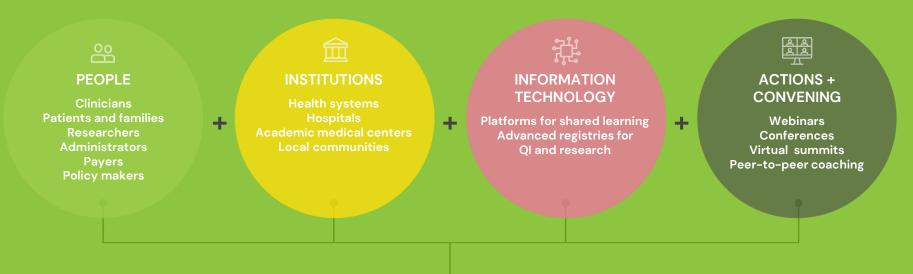
Learning Health Networks (LHNs) bring together large, engaged communities of patients, clinicians, and researchers combining their insights and expertise with the best science, tools, and technology.

We've all witnessed the power of this kind of radical collaboration when we came together to develop a safe COVID-19 vaccine with 95% efficacy exceeding the typical vaccine development timeline by more than 1000%.

LHNs rise to the challenge of hundreds of diseases like we rose to the challenge of a global pandemic.



## Learning Health Networks bring together ...



## **RESULTS:**

Improved outcomes and well-being by orders of magnitude
Safer, more reliable care processes
More actionable data to improve care and real-world data for research



## **Learning Health Networks**

Goal-directed, enduring, data driven organizations.

Working communities of patients, clinicians, and researchers combining their insights and expertise with science, tools, and technology to improve individual and population health and well-being.

Learning Health Networks are not just social networks.

## **BEFORE LEARNING HEALTH NETWORKS**

Seventeen years from evidence to application in practice

Widespread disparities in practice

Inefficiencies slow study completion, which prevent approval for treatments, therapies, tests, and devices.

Physicians lack the data to tell their patients what to expect based on the last 1,000 patients like them.

Patients and families are not involved in deciding research priorities.

The old model cannot keep up with the explosion of new evidence and technology.

### AFTER LEARNING HEALTH NETWORKS

Less than three years to design and diffuse new evidence (e.g., new models of care for opioid-exposed babies, treatment of infants with hypoplastic left heart syndrome)

Reliable implementation of evidence and best practices across hundreds of hospitals that ordinarily compete

Organized clinical research communities used real-world data needed to achieve FDA approval of a life-saving device.

Large patient registries with real-time data shared transparently across hundreds of health care organizations.

Patient-designed educational tools and videos; patient-driven research priorities

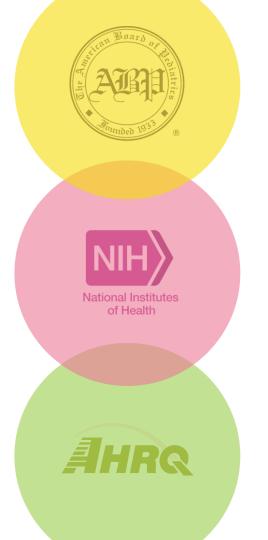
The new model is adaptive, dynamic, and fast. Everyone can contribute.

### **HEALTHIER TOGETHER RESULTS**

With the support of the American Board of Pediatrics, the NIH, and the Agency for Healthcare Research and Quality, we began implementing the network model in pediatrics.

Now we're scaling the model to help patients of all ages and to dramatically improve outcomes for all sorts of conditions, no matter how common or rare.

Some results ...



## HEALTHIER TOGETHER NETWORK RESULTS:

Increased remission from 60% to 82% among children and youth with Crohn's disease and ulcerative colitis across 110 centers and 30,000 patients.

-ImproveCareNow Network

Across 140+ children's hospitals in the "Solutions for Patient Safety Network" (examples):

- Decreased serious safety events by 32%
- Decreased adverse drug events by 74%
- Decreased unplanned extubations by 42%

In 2020, these results and more saved 18,631 children from serious harm and saved \$380 million.

40% reduction in mortality from hypoplastic left heart syndrome (HLHS) and reduced growth failure from 30% to < 10% for 95% of all children with this condition in the U.S.

-National Pediatric Cardiology QI Collaborative

Decreased stroke rates by 50% in children with heart failure who require a cardiac assist device across 50 hospitals.

-ACTION Network

Used real-world data **to achieve FDA approval** for lifesaving cardiac devices in children previously available only to adults.

-ACTION Network

# HEALTHIER TOGETHER NETWORK RESULTS (CONT'D):

**Decreased** elective preterm birth 75% across birth hospitals in Ohio (sustained reduction of > 65,000 elective preterm births over 10 years)

-Ohio Perinatal Quality Collaborative

Reduced births before 32 weeks' gestation by 6.6% across Ohio, including reductions in repeat early preterm births in women insured by Medicaid (17% decrease) and African American women (20% decrease)

-Ohio Perinatal Quality Collaborative

**Reduced** late-onset infections in infants born at 22 to 29 weeks gestation **by 20%** among 24 NICUs in Ohio

-Ohio Perinatal Quality Collaborative

Reduced hospital length of stay for infants with Neonatal Opioid Withdrawal Syndrome by 2 days across all of Ohio

-Ohio Perinatal Quality Collaborative

# HEALTHIER TOGETHER NETWORK RESULTS (CONT'D):

**43% improvement (from 46% to 66%)** in the percentage of 11,000 Cincinnati Public School children proficient in 3<sup>rd</sup> grade reading reflecting hundreds of additional urban children reaching the target

-All Children Thrive Network

18% reduction in bed days (about 190 fewer days in the hospital/year) for children in the 3 poorest neighborhoods of Cincinnati with 8,800 children

-All Children Thrive Network

**Reduced** acute rejections in children with kidney transplants 44% across 12 pediatric nephrology centers

-Improving Renal Outcomes Collaborative

More than \$75 million in grant funding from NIH, AHRQ, CMS, PCORI, and other sponsors

More than 140 publications across leading journals, including JAMA, British Medical Journal, Pediatrics, Neurology, American Journal of Transplantation, Mayo Clinic Proceedings, JAMA Pediatrics, and many more

## **AWARDS**



2016 Drucker Prize for Social Innovation



Children's Hospital Association 25 Biggest Pediatric Health Care Innovations in 25 Years



2017 National Quality Forum John M. Eisenberg Patient Safety and Quality Award



CDC recognition for leadership in perinatal quality improvement



2018 RWJF Culture of Health Award Finalist (All Children Thrive Network)



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The work that you and your teams have done in QI, patient safety, and social determinants of health has been inspiring to watch. It has provided the conceptual framework and the implementation infrastructure to maintain the social contract between our profession and our patients in the 21st century. Co-design, data, research, QI science, systems-thinking, stakeholder engagement, have improved patient safety in general and disease-specific outcomes in particular. And I think the systematic application of these principles to social determinants in the All Children Thrive program is unique in the country."

-DAVID NICHOLS, MD, MBA,
CEO OF THE AMERICAN BOARD OF PEDIATRICS



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Over 10 years ago, the National Academy of Medicine created a vision for a learning health care system. This vision applies both within organizations and in some even more important ways, among organizations. We always know more, and can learn faster, together than apart. Learning Health Networks are turning this vision into a reality. We need more of them—engaged patients, clinicians, researchers, and health care organizations, networking together, simultaneously improving care and accelerating research. Networks are a transformational approach to improving health and well-being at unprecedented scale and speed. We urgently need to broaden the reach and use of network learning models, for the benefit of patients, families, communities, and health care as a whole."

-DONALD BERWICK, MD
PRESIDENT EMERITUS AND SENIOR FELLOW INSTITUTE
FOR HEALTHCARE IMPROVEMENT



You have one of the most impressive stories in the nation, by far. Not only data sharing, but robust outcomes and authentic patient/family centricity and co-collaboration. I wish I could clone your initiatives. I also wish I could clone your commitment to keeping the patient the North Star. Sadly, not everyone in healthcare maintains that laser focus."

-LAURA ADAMS, RN, MS, SPECIAL ADVISOR, NATIONAL ACADEMY OF MEDICINE; FOUNDING PRESIDENT AND CEO RHODE ISLAND QUALITY INSTITUTE

## RESEARCHER

Learning Health Networks
dramatically accelerate
research and translation of new
evidence to the bedside. The
new model leverages real-world
data to achieve FDA approval
for life-saving devices for
children. These new ways of
collaborating are eliminating the
artificial boundaries between
care, improvement and
research."
—Angela Lorts, MD, MBA, Associate

Angela Lorts, MD, MBA, Associate
 Chief Quality Officer, Cincinnati
 Children's Hospital Medicine



## **PATIENT**

By participating in a Learning
Health Network of doctors, nurses,
patients and families, I found a
culture of people who really want
to collaborate. I've been able to be
vulnerable, to share my
experiences and be heard.
Everyone in a Learning Health
Network can contribute their
expertise in ways that make a
difference."

-Christian Lawson, Patient Leader, ImproveCareNow Network



## CLINICIAN

Learning Health Networks bring an inclusive, all-in approach. Sometimes you are subject to healthy peer pressure, but you know you have the support to do daunting work. The Network provides a mechanism to bring technical information to life. It weaves it into the fabric of the social interactions that are the engine of improvement."

-Trey Coffey, MD, Medical Safety Officer, Toronto Sick Kids Hospital, Associate Clinical Director of Solutions for Patient Safety



## **OUR COMMUNITY OF NETWORKS**



























## **OUR COMMUNITY OF SPONSORS**































































## JOIN THE MOVEMENT

Healthier Together is the Network of Networks.
It's a collective, collaborative community of Learning Health Networks, building and connecting hundreds of new networks.

With each new LHN, the impact is exponential for populations of people with chronic and rare diseases, in hospitals, in research facilities, and in communities.

With the right financial support, we can grow the Healthier Together community of networks to revolutionize how health care is practiced in this country and around the world.

The future of medicine is possible **today**. Together, we can make it a reality.



We Are Healthier Together

THANK YOU.