



## ARIADNE LABS 2022 ANNUAL REPORT

# A Decade of Design, Test, and Spread

# Letter from Asaf

During 2022, we celebrated Ariadne Labs' 10 year anniversary since our founding. As we reflect on our journey over the past decade, we are deeply grateful for our supporters, partners, staff, and champions who have propelled us forward in our mission to save lives and reduce suffering.

Our growth and evolution since our founding has been remarkable. From starting with just three tools in our first year, we proudly developed 157 tools across the Ariadne Labs Arc last year alone. Our team, which began with a modest 13 employees, has now expanded to more than 110 staff and core faculty, along-side a network of more than 150 associate faculty. These milestones have allowed us to positively impact the lives of millions across the globe, touching nearly every corner of the world.

Yet, amidst our achievements, there is still significant work ahead. The aftermath of the COVID-19 pandemic has left our systems grappling with catching up on missed essential services, staffing shortages, strained capacities, and the burnout of dedicated clinicians. We find ourselves in the midst of a pressing maternal mortality crisis, persistent safety gaps, and primary care — the foundation of robust health care systems — under significant threat. While the need for safe and inclusive care has never been more critical, the obstacles to equitable delivery at times appear deeply entrenched.

Despite these challenges, we remain resolute in our commitment and ability to drive change. With a decade of experience in health systems innovation, we have refined our methods for blending human-centered design, rigorous testing, and implementation science to produce measurable results. This enables us to respond swiftly to emerging challenges while ensuring the ongoing relevance of our existing tools for those who need them most.

In 2022, we leveraged these methodologies to make childbirth safer for individuals across the globe, brought genetic screening to primary care to detect diseases and save lives, equipped clinicians worldwide with cutting-edge, evidence-based clinical decision tools, built new home hospital models, and scaled serious illness communication tools, among many other accomplishments. Collectively, our work touched the lives of 97.9 million patients.

As we embark on our second decade of health systems innovation, we recognize that the future of public health and health care presents formidable obstacles. Despite these challenges, by blending science with compassion and evidence with pragmatism, we see immense opportunity to continue to make health care safer, more equitable, and more integrated for every patient, everywhere.

I'm pleased to share our [Year 10 Annual Report](#), which provides a view into the remarkable achievements of our teams in 2022.



***“The future of public health and health care presents formidable obstacles. Our methods for blending human-centered design, rigorous testing, and implementation science enable us to respond swiftly to emerging challenges while ensuring the ongoing relevance of our existing tools for those who need them most.”***

— Dr. Asaf Bitton, Executive Director

Asaf Bitton  
Executive Director, Ariadne Labs

## By the Numbers: Our Impact in 2022

# 97.9 MILLION

Lives touched in FY22

**157** Tools and resources



We worked with 256 health systems

We worked with and trained more than

**55,000** health care professionals



**8K**

Lab tools and resources were downloaded

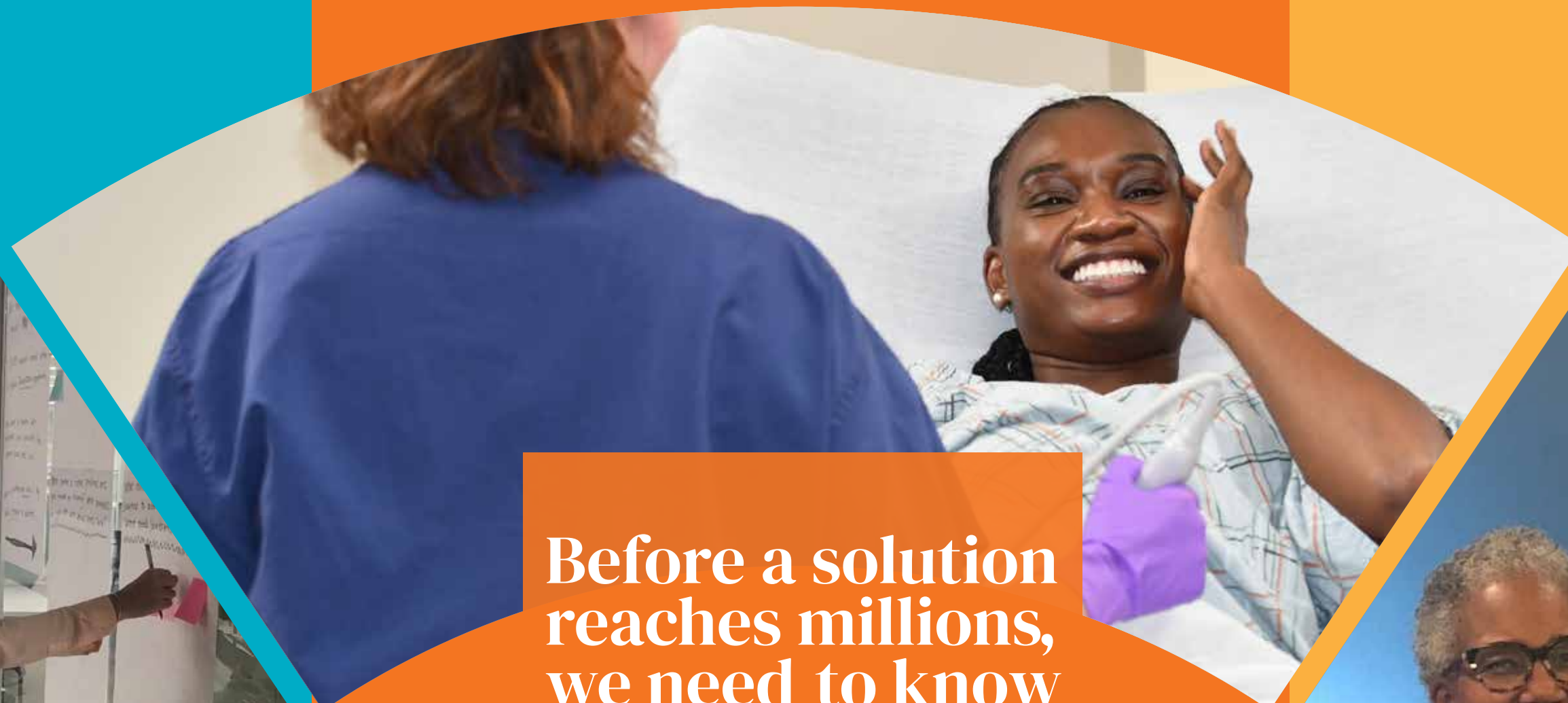
**151** Countries where health care professionals accessed our work



## DESIGN:

# Successful solutions start with the end-user.

We are regularly identifying new challenges across the spectrum of health care and creating solutions that work for the people who need them most. In the Design phase of the Ariadne Labs Arc, we use human-centered design to produce a testable version of a solution that meets the needs of the end user.



## SPREAD:

# Solutions can't fix problems if they never make it off the shelf.

Our work doesn't stop once we've developed a solution. We're dedicated to implementing our work around the globe to have real impact for real people. In the Spread phase of the Arc, we scale our tools across diverse settings, contexts, and users so that every patient, everywhere has the opportunity for better care.



## Before a solution reaches millions, we need to know that it works.

With a rigorous methodology for testing and iterating on our solutions, we are continually learning and improving our solutions to bring evidence-based innovation to every area of health care. In the Test phase of the Arc, we ensure that we've designed an effective, scalable solution.

### The Ariadne Labs Arc is our proven pathway for designing effective, scalable solutions.

This year's report details our teams' efforts across each phase of the Arc—design, test, and spread—and the impact our work is having on patients' lives.





### BetterBirth Receives Significant Grant from Bill & Melinda Gates Foundation to Promote Optimal Feeding of Low Birthweight Infants

**BetterBirth** received nearly \$10 million in funding from the Bill & Melinda Gates Foundation to begin work on the **Low Birthweight and Preterm Infant Feeding Trial and Supportive Care Package (LIFT-UP) project**. LIFT-UP will provide implementation research on the feeding and probiotic recommendations of the 2022 WHO Care for the Preterm or Low Birthweight infant guidelines. The work aims to identify opportunities to better support small, vulnerable newborns and their families with improved feeding interventions and enhanced support for providing human milk.

This work builds on findings from the **Low Birthweight Infant Feeding Exploration (LIFE) study**, which documents feeding practices, growth patterns, and health outcomes among more than 1,100 low birthweight infants in low-resource countries. A recently released executive summary outlines key findings and suggested action to ensure small, vulnerable newborns survive and thrive.

### Spark Grants Awarded to Nine Health Care Innovators

**Spark Grants** continued to fuel Ariadne's innovation pipeline, funding nine new and early-stage projects to close gaps in health care. Recipients worked with experts in human-centered design from Ariadne's Innovation Platform to develop a wide range of solutions, including communication tools to improve cesarean recovery in rural Africa, a checklist to streamline access to life-saving stroke care, and conversation guides for deprescribing in hospice settings. This year's recipients included five projects funded by Harvard Medical School Dean's Innovation Grants in Health Care Delivery.

Of the grants awarded, three received renewed Spark Grant funding in early 2023 to continue on with their work, while others sought further funding from other sources.

### PACT Leads Health Systems in Responding to Patient Harm

The **Pathway for Accountability, Compassion, and Transparency (PACT) Collaborative** convened 18 health systems in its first Breakthrough Series Collaborative to support systems implementing patient harm response programs. PACT provided participants with a comprehensive curriculum; new tools for measurement, communication, process improvement, and patient and family education; and access to faculty, coaches, and peer organization to support learning and improvement. Following the collaborative, all participants reported progress on building or strengthening their program.

**PACT** is currently recruiting health systems for the next cohort, while also creating a Community of Practice for health systems newer to harm response programs and a Leadership and Innovation Network for more experienced systems. PACT is led by Ariadne Labs, the Collaborative for Accountability and Improvement (CAI), and the Institute for Healthcare Improvement (IHI).

### Eldercare Team Aims to Improve Quality of Life for Dementia Patients and Caregivers

In August of 2022, Ariadne Labs' **Eldercare team** launched work to understand challenges in dementia care at the patient, caregiver, and clinician levels. The team has identified gaps in care and support that contribute to feelings of overwhelm and isolation for patients and families and, over the next year, will design tools to help prepare and support families with a focus on quality of life.

# \$10M

IN FUNDING FOR  
**BETTERBIRTH** TO LAUNCH  
LIFT-UP PROJECT

# 9

NEW AND EARLY  
STAGE PROJECTS  
FUNDED BY **SPARK**  
GRANT PROGRAM  
TO FUEL INNOVATION  
PIPELINE

# 18

HEALTH SYSTEMS IN  
THE INAUGURAL **PACT**  
BREAKTHROUGH  
SERIES COLLABORATIVE







### Precision Population Health and Corewell Health Pilot Genomic Screening in Primary Health Care

**Precision Population Health** and Michigan-based Corewell Health launched a pilot program to offer genetic screening to 1,000 primary care patients. The screening tests for up to 167 genes, each of which can provide actionable information to help clinicians and patients detect disease early or prevent it altogether. The Ariadne Labs team has created implementation resources, conversations guides, clinician tools, and more to help bring this screening to primary care practices. In the next phase of the project, the team will continue to iterate on the clinical pathway for scaling the program.

In October 2022, Precision Population Health co-hosted the inaugural International Conference on Newborn Sequencing (ICoNS) in Boston, MA. The first-of-its-kind event drew more than 500 leading researchers and clinicians from around the world to share opportunities and challenges of genetic sequencing for newborns. A second conference is planned for October 2023 in London, co-hosted with Genomics England.

### Safe Surgery/Safe Systems Partnership Re-Implements Checklist at Singapore General Hospital

The **Safe Surgery/Safe Systems** team partnered with Singapore General Hospital (SGH) and Johnson & Johnson to evaluate, modify, and re-implement SGH's **WHO Surgical Safety Checklist**. As part of the re-implementation, the team incorporated the **Device Briefing Tool**, an innovative new tool developed in partnership with Johnson & Johnson and designed to meet the safety challenges posed by the ever-increasing number of new and complex surgical devices used in operating rooms.

Findings from this work demonstrated the utility of the Device Briefing Tool, with fewer safety issues related to device use, and the tool's high acceptability, with both surgeons and nurses rating it as highly useful. The work yielded key insights on the importance of health facilities, even high-performing ones, periodically re-visiting their Checklist to ensure it is being used consistently and

### Home Hospital Tests New Methodologies, Tools, and Models

**The Home Hospital Early Adopters Accelerator**, led by Ariadne Labs and CaroNova, brought together 18 health organizations in the U.S., Canada, and South Africa to develop the tools health systems need to launch and sustain their own home hospital programs. In just 32 weeks, accelerator participants used the Scrum framework to produce 20 knowledge products, including clinical protocols, administrative workflows, and patient-facing tools. Work is currently underway to evaluate uptake of the products after one year.

**Home Hospital** also launched patient enrollment for the first-ever international randomized controlled trial of a Rural Home Hospital model. By the end of 2022, the trial had successfully enrolled 15% of its total patients across three sites in the U.S. and Canada, and 64 providers had completed remote training on the model.

meeting the current challenges and demands of the operating room. Re-visiting Checklist implementation also offers an opportunity to capitalize on its use as a vehicle to introduce innovative new safety measures.



# 1,000

PRIMARY CARE PATIENTS OFFERED GENETIC SCREENING IN PILOT PROGRAM AT COREWELL HEALTH





### TeamBirth Continues Expansion and Publishes Positive Data from Pilot Trial

The **Delivery Decisions Initiative** continued to improve teamwork and communication in labor and delivery across the country. **TeamBirth** was implemented at 37 additional hospitals, including every birthing hospital in Tulsa, Oklahoma and health systems in Washington, Michigan, Oklahoma, New Jersey, Ohio, Tennessee, Oregon, and California. By the end of 2022, TeamBirth had reached more than 60 hospitals in nine states and continues to expand.

New data from a pilot trial of **TeamBirth** showed that 99% of patients reported having the role they wanted in decision-making during labor and delivery and 90% of nurses, midwives, and obstetricians would recommend TeamBirth. **TeamBirth was featured in *Aftershock***, a documentary exploring the devastating impact of the Black maternal health crisis in the U.S. and highlighting efforts to make change.

### Serious Illness Care Program Improves Accessibility with Digital Implementation Resources and Updated Tools

The **Serious Illness Care team** focused efforts on improving accessibility to its tools, trainings, and implementation resources to reach more health systems, especially those with fewer resources. The team developed a suite of digital learning resources, including an avatar-based simulation training, to lower the time and cost barriers of implementing the program with on-demand, self-guided learning.

In addition, the team launched a **multi-stakeholder process** to update the language of the foundational **Serious Illness Conversation Guide** to enhance its inclusivity for people of all backgrounds. The work included extensive stakeholder feedback as well as patient focus groups in partnership with the Patient Advocacy Foundation. The team also continued to spread the patient-facing **What Matters to Me Workbook** to new audiences, with a particular focus on faith-based communities.

### Better Evidence Facilitates 100,000th Subscription Donation

In 2022, the **Better Evidence for Clinicians program** facilitated donation of its 100,000th UpToDate® subscription to health care workers in low-resource settings. This group includes more than 2,200 physicians in Ukraine and Poland working under dire conditions following the Russian invasion of Ukraine. These subscriptions have changed an estimated 11 million clinical decisions across 165 countries since 2009.

The **Better Evidence for Training program** onboarded 16 new medical schools to equip medical students with access to high-quality, evidence-based information. With help from 72 local champions, Better Evidence granted more than 72,000 students, residents, and faculty in 43 medical schools across 15 African countries free access to digital tools, including UpToDate, Trip Pro, MSD Merck Manuals, and Osmosis.

### Primary Health Care Program's Measurement Work Reflected in WHO-UNICEF Primary Health Care Measurement Framework and Indicators

The WHO and UNICEF released the first-ever globally-endorsed **framework for primary health care measurement and monitoring**. The Framework maintains and builds on the work of Ariadne Labs and the Primary Health Care Performance Initiative (PHCPI)'s foundational Conceptual Framework. PHCPI updated the Vital Signs Profile, available on the PHC Digital Hub, to align with the newly-released framework and ensure that all stakeholders can engage around unified measures. The PHCPI partnership concluded in 2022 after seven years and released a reference guide detailing their contributions to defining, measuring, and improving primary health care globally.

The **Primary Health Care Program** also continued work on the Crosswalk Telehealth initiative, publishing a playbook for leveraging telehealth in behavioral health integration at FQHCs. The playbook was presented to more than 30 centers as part of the Massachusetts FQHC Telehealth Consortium.



2.48M  
LIVES TOUCHED BY BETTER EVIDENCE

1.29M  
LIVES TOUCHED BY SERIOUS ILLNESS CARE PROGRAM

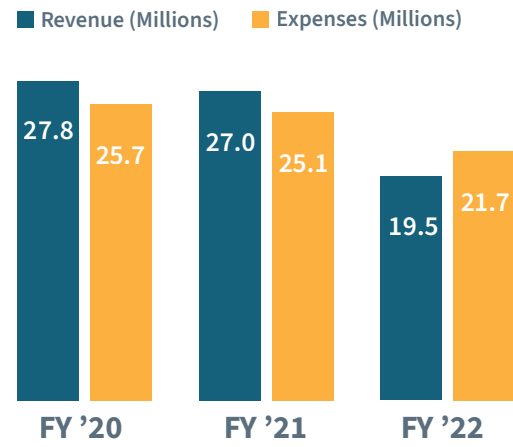
969K  
LIVES TOUCHED BY PRIMARY HEALTH CARE PROGRAM

66K  
LIVES TOUCHED BY DELIVERY DECISIONS INITIATIVE

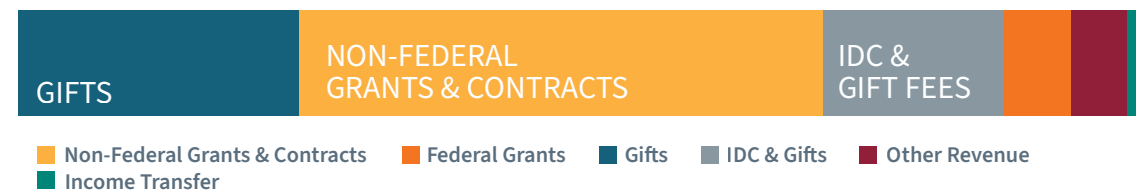
# Financials

Ariadne’s programmatic work continued to grow in FY22, with grant revenue increasing by \$1.47 million. Amid economic uncertainty that drove a nationwide trend toward decreased philanthropic giving, gifts brought in \$1.3 million less than anticipated. Miscellaneous expenses increased by \$700,000, due largely to consulting expenses related to interim staffing for essential staff roles.

Operating losses were offset by a \$3.38 million reduction in expenses from FY21. We headed into FY23 with a positive financial outlook, anticipating increased levels of grant funding to further offset expenses.



## FY22 REVENUE BY SOURCE — \$19.5M



## FY22 EXPENDITURE BY TYPE — \$21.7M



# Our Supporters

This list includes grants and donors with gifts and pledges totaling \$50,000 or more during our 2022 fiscal year (October 1, 2021 and September 30, 2022).

- Anonymous (multiple)
- Bill & Melinda Gates Foundation
- Blue Shield of California
- Boston University School of Public Health (C3)
- Branta Foundation
- CaroNova
- Charina Fund
- Commonwealth Fund
- Constellation, Inc.
- Corewell Health (previously Beaumont Health)
- CRICO
- Donner Foundation
- Gordon & Betty Moore Foundation
- Grail
- Harvard Medical School
- Harvard Pilgrim Healthcare
- Hillman Foundation
- John Maraganore
- Klarman Family Foundation
- Liberty Mutual
- Mass Eye and Ear Infirmary
- Merck for Mothers
- National Philanthropic Trust
- Noora Health Systems
- Peterson Center for Healthcare
- Point32Health
- Population Reference Bureau
- Robert Wood Johnson Foundation
- Sabin Vaccine Institute
- Star Legacy
- Surgo
- The Board of Regents of the University of Oklahoma
- The Boston Foundation
- The Pew Charitable Trusts
- Thompson Family Foundation
- University of Washington
- USAID
- World Health Organization
- Yellow Chair Foundation

**If you would like to become a supporter**

**Learn more at our website**  
<https://www.ariadnelabs.org/about-us/support-us/>

**Or contact Margaret Ben-Or at [mbenor@ariadnelabs.org](mailto:mbenor@ariadnelabs.org).**





## Brigham and Women's Hospital

Founding Member, Mass General Brigham

*“Ariadne Labs is transforming health systems around the world. As a transplant surgeon, I’ve seen how the Surgical Safety Checklist has improved surgical care globally. And now as Brigham president, I have an even more expansive look at how Ariadne is revolutionizing care across the lifespan for millions of people. We are so proud of our 10-year alliance with the Harvard T.H. Chan School of Public Health and the extraordinary work led by Ariadne Labs — and look forward to many more decades of life-changing innovation.”*

— Robert S.D. Higgins, MD, MSHA, President of Brigham and Women’s Hospital and Executive Vice President at Mass General Brigham



## HARVARD T.H. CHAN

SCHOOL OF PUBLIC HEALTH

*“Through 10 years of rigorous testing, we’ve seen Ariadne Labs flourish into a far-reaching, gap-closing, game-changing innovation hub, finding and spreading scalable solutions to the world’s biggest health concerns, effectively and equitably. I look forward to continuing our partnership with Ariadne Labs and Brigham and Women’s Hospital, and making our shared visions — including health care for all — a reality in the next decade and beyond.”*

— Jane J. Kim, Interim Dean of the Faculty and Dean for Academic Affairs, Harvard T.H. Chan School of Public Health

# Advisory Board

Our Advisory Board includes world-class leaders in science, education, health care, and business. They support Ariadne Labs by contributing expertise on research priorities, scientific plans, implementation approaches, and collaborations

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Associate Chief of the Division of Rheumatology,  
Inflammation, and Immunity, Brigham and  
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Former Director of Medicaid and Medicare

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