What’s next
Patient Care

Community Impact

Future of Health

Sheaurni Tsai, MD, adjusting the hospital’s surgical robot at North Shore Medical Center

A Message From Anne Klibanski, MD 4
Financial Overview 50
Leadership 56
Partners HealthCare: What’s Next

Welcome to the next 25 years of Partners HealthCare. Here you will find stories that speak to the values that shape us as a system: a steadfast commitment to delivering the best possible patient care; a belief in our ability to positively impact our community; an unwavering focus on advancing health care through research and practice; and a mission to educate the next generation of caregivers.

This is who we are, where we’ve come from — and where we’re going. As we move into the next quarter-century, we remain singularly focused on our collective mission: to help people lead their healthiest lives.

A mother and her baby,
Neonatal Intensive Care Unit,
Brigham and Women’s Hospital
Torch has made health care better and improved the quality of life for countless individuals. For that, we extend our thanks and appreciation.

— Anne Klibanski, MD, Partners Healthcare
Dear Colleagues,

Each and every day, around the clock and across the region, our more than 74,000 employees arrive at work eager to share their passion, knowledge, and commitment to transforming the future of health care.

Throughout this year’s annual report, you will see countless examples of our employees’ efforts that are helping us achieve our collective vision for making health care better. You will read about initiatives underway that hold great promise to shape the well-being of future generations.

We strive to be the best we can be. We are an important part of our patients’ and their families’ lives. We work to improve the health of our communities. We fuel the economic and life sciences ecosystem in Massachusetts and beyond. We advance research and academic accomplishment. And, we train the next generation of clinicians and scientists, while also empowering our staff.

The unifying effects of a successfully implemented electronic health record and a shared digital health vision, a common population health strategy, and a singular drive to reinvent our system through Partners 2.0 have yielded new strengths for our system. In the years ahead, our journey together as a premiere health care system will realize new and unimaginable potential, reaping great benefits for our patients, helping us unlock the cures of tomorrow, and preparing the next generation of the health care workforce.

Much of the inspiration for our success can be attributed to Dr. David Torchiana, our outgoing CEO. Affectionately known to all of us as “Torch,” he put forth a strategic vision that encouraged new levels of collaboration and allowed us to think differently about the future of health care, all while maintaining the financial stability needed to sustain our mission. From his early days as a world-renowned cardiac surgeon through his transition into retirement, Torch has made health care better and improved the quality of life for countless individuals. For that, we extend our thanks and appreciation.

I am grateful for the opportunity to serve in the role of Interim CEO for Partners HealthCare, an organization I have been a part for many years, both as a practicing clinician and researcher at Massachusetts General Hospital, and for the past seven years as Partners’ Chief Academic Officer. In my new role, I will do everything I can to build upon the progress we have worked so hard to earn.

Anne Klibanski, MD
Interim President and CEO,
Partners HealthCare
Patient Care
Each year, 1.5 million patients walk through our doors, seeking care for a wide range of conditions, every one recorded in our electronic health record. Behind that vast number there are real people. People of all ages and backgrounds, each with their own story, point of view, and wide-ranging needs — and something to teach us about enhancing care and improving medicine for everyone.
It starts with the tiniest patients, babies born medically critical, who now benefit from a cutting-edge imaging system in the Brigham and Women’s Hospital NICU that eliminates precious minutes and unnecessary risk tied to their care. Equally fragile older patients, vulnerable to falls and wounds, who receive enhanced care from innovations at Massachusetts General Hospital and Partners HealthCare at Home. Patients with specific sets of needs based on their gender identity, geography, or social determinants of health — all of whom we strive every day to recognize and meet where they are, with the very best medicine our system is poised to offer.

Unparalleled, coordinated research and clinical collaborations across our system fuel game-changing advances in patient care, and equip us to welcome the most intractable patient cases to our treatment rooms. Technology, however, is only as valuable as the practitioners who bring it to our patients — the nurses and doctors whose dedication leads the industry, and who are tireless in their pursuit of excellence. Our providers need care, too — and we strive to support and promote their own wellness in new and innovative ways.

We’re in this together. Across Partners HealthCare, a virtuous cycle of discovery, progress, and enhanced outcomes propels our system as a collective whole, advancing what health care can do for real people, everywhere.

Right: Phillip Song, MD, Massachusetts Eye and Ear
We strive to support and promote wellness in new ways.
As a new Magnet®-recognized institution following the lengthy evaluation process, the Brigham will also need to demonstrate continuous quality improvement to meet redesignation standards in 2022. “We are exceptionally proud of our 3,500 nurses for this well-deserved recognition of the care they provide with the multidisciplinary team,” says Madelyn Pearson, DNP, Brigham Health’s Chief Nursing Officer and Senior Vice President of Patient Care Services. “Receiving Magnet® designation affirms what we and our patients already knew: that nursing care at the Brigham is world-class.” To continue to meet Magnet® standards, Pearson notes several initiatives underway to enhance patient outcomes and nurse resiliency, including resources aimed at supporting staff wellness.

“We celebrate this external validation of our commitment to patient care and outcomes — but we won’t stand still,” she continues. “We will continually build on what we have put in place with improved processes and an even more supportive practice environment across the entire organization.”

It may be impossible to measure the true impact of nursing care on individual patients and families, but Magnet® recognition — the highest honor bestowed for nursing excellence — provides standards by which to measure the quality of nursing care. In 2018, Brigham and Women’s Hospital joined Massachusetts General Hospital (MGH) and approximately eight percent of the nation’s hospitals in receiving this prestigious designation.

The Magnet Recognition Program® is considered the gold standard for nursing practice, and it goes hand-in-hand with the highest levels of quality and safety. Research shows that Magnet®-recognized hospitals report higher patient satisfaction with nurse communication, fewer pressure ulcers, fewer patient falls, higher job satisfaction among nurses, improved patient quality and safety, and decreased 30-day mortality rates.

The Magnet® program, administered by the American Nurses Credentialing Center (ANCC), assesses factors known to contribute to nursing excellence, including quality of nursing leadership, collaboration across specialties, and processes in place to measure and improve the delivery of care. In 2003, MGH became the first hospital in Massachusetts to achieve Magnet® recognition from the ANCC and has successfully met the rigorous standards for redesignation three times since then. “Magnet® designation is an ongoing journey that helps to identify and articulate those aspects of our practice that impact the care environment and the delivery of care to each and every patient and family,” explained Adele Keeley, RN, MGH’s Nursing Director of Gynecology/Oncology. “The resulting culture assures that all of us — within nursing and throughout the hospital — are working together at a high level to provide the safest and best possible care.”

As a new Magnet®-recognized institution following the lengthy evaluation process, the Brigham will also need to demonstrate continuous quality improvement to meet redesignation standards in 2022. “We are exceptionally proud of our 3,500 nurses for this well-deserved recognition of the care they provide with the multidisciplinary team,” says Madelyn Pearson, DNP, Brigham Health’s Chief Nursing Officer and Senior Vice President of Patient Care Services. “Receiving Magnet® designation affirms what we and our patients already knew: that nursing care at the Brigham is world-class.” To continue to meet Magnet® standards, Pearson notes several initiatives underway to enhance patient outcomes and nurse resiliency, including resources aimed at supporting staff wellness.

“We celebrate this external validation of our commitment to patient care and outcomes — but we won’t stand still,” she continues. “We will continually build on what we have put in place with improved processes and an even more supportive practice environment across the entire organization.”

Above: Laura Calderone, BSN, Brigham and Women’s Hospital
Right: Emily Olmstead, RN, Massachusetts General Hospital
Magnet® recognition is considered the gold standard for nursing practice.
When medically critical newborns receive care in the neonatal intensive care unit (NICU), time is of the essence, particularly as care teams seek answers through diagnostic imaging. Transporting these tiny patients to MRI scanners takes valuable time and carries its own risk — two problems which a new NICU-dedicated MRI system at Brigham and Women’s Hospital is designed to solve.

The system, which arrived at the Mary Horrigan Connors Center for Women and Newborns in September 2018, is unique to neonatal care at the Brigham: it’s the first-ever FDA-approved, NICU-dedicated MRI system in the U.S.

“The installation of this state-of-the-art neonatal MRI system has expanded neonatal care for our littlest patients,” says Terrie Inder, MBChB, Chair of the Department of Pediatric Newborn Medicine. “Its location within the NICU allows MRI access from the first hours of life through the challenging, sometimes life-threatening time within the NICU.”

Beyond the time savings and risk reduction offered by the scanner’s in-unit location, the system also enhances care through its neonate-centric design, offering a temperature-controlled, self-contained incubator bed that minimizes patient movement and enables continuous monitoring of vital signs. This provides the care team with greater control over babies’ environments while offering care-critical information that can identify possible brain injuries and inform treatment — as well as help prevent future disabilities. Another benefit is the ability to place a ventilator close to the new scanner, as it has a much smaller, safer magnetic fringe field compared to a conventional MRI magnet.

Quieter than a traditional MRI system, the neonatal system is self-shielded and permanently magnetic, allowing for its placement in the NICU – an area that would typically be size- and risk-prohibitive for an MRI.

“This new MRI system is designed for a single use — scanning of the newborn within the controlled confines of the NICU,” says Srinivasan Mukundan, Jr., MD, Medical Director of Magnetic Resonance Imaging, at the Brigham. “It’s a new tool in our suite of diagnostics that will help us better target care to this vulnerable population of patients.”

Below: Terrie Inder, MBChB, Brigham and Women’s Hospital
Expanding Gender-Affirming Care at MGH

Physicians and staff at Massachusetts General Hospital (MGH) are committed to providing specialized care that suits the needs of all patients — including some of the 1.1 million Americans who identify as transgender and gender non-binary. Delivering sensitive, gender-affirming care that speaks to the specific physical and behavioral health needs of these patients, during and beyond gender transitioning, requires a dedicated effort at the institutional level. That is the goal of the MGH Transgender Health Program — a new collaborative initiative started by the Department of Medicine, which includes a multidisciplinary clinic on the MGH main campus.

This is part of an effort among MGH providers to expand access here for the transgender community.

— ROBERT GOLDSTEIN, MD, MASSACHUSETTS GENERAL HOSPITAL

The initiative draws on MGH’s history of providing expert care for the lesbian, gay, bisexual, and transgender (LGBT) community, supported by advocacy from the MGH LGBT Employee Resource Group throughout the past decade and the newly established Transgender Action Group. With a focus on gender-affirming care, the program offers comprehensive primary care, hormone management, case management, and a connection to behavioral health resources and surgical services.

“This is part of an effort among MGH providers to expand access here for the transgender community,” says internist Robert Goldstein, MD, Medical Director of the Transgender Health Program. Dr. Goldstein focuses the practice on the unique needs of this population and helps train primary care providers at MGH and beyond on how to provide care for LGBT patients.

The Transgender Health Program’s success is rooted in its collaborative approach to patient care. Teams of providers from every department and service — including Plastic and Reconstructive Surgery, Urology, Oral and Maxillofacial Surgery, Obstetrics and Gynecology, Pediatrics, and Psychiatry — have worked to improve their delivery of care to transgender and gender non-binary patients.

As the effort continues, MGH is working to build an expansive network of practitioners with expertise in transgender care. It is also one of several hospitals in Boston working jointly as part of the New England Gender C.A.R.E. (Collaboration, Access, Research, and Education) Consortium, dedicated to improving access to gender-affirming care throughout the region. In addition, partnerships with researchers throughout the hospital and Harvard Medical School are focused on community-based, participatory research that will further system-wide advances in transgender health.
Preventing Patient Falls Through Innovation

Patient falls are a leading cause of hospital-associated complications and poor outcomes nationally — and Massachusetts General Hospital (MGH) is committed to preventing them. MGH Neuroscience Staff Nurse Jared Jordan, RN, became focused on the problem when one of his patients fell while using the bathroom. Jared’s troubleshooting led him to create a pioneering harness-like tether that would stabilize a patient while toileting; two years later, there is a patent pending on the device. The invention was ushered through the development pipeline with support from an Innovation Design Excellence Award (IDEA) grant from the MGH Center for Innovation in Care Delivery, which accelerates innovations that benefit patient care. Jared says, “I became a nurse to help people and this invention is another way to accomplish this on a much broader scale.”

Healing Wounds with Mobile Expertise

Providing efficient, effective mobile-based patient care is at the heart of Partners HealthCare at Home’s (PHH) mission. A new innovation is extending this care model to reach to patients in need of expert wound care. Supported by Haiku, a smartphone-based technology with built-in photograph capability, the initiative allows PHH field clinicians to make wound photographs taken during home care visits immediately viewable within the patient’s medical record. An office-based Wound Ostomy and Continence Nurse with expertise in wound care can then provide real-time treatment recommendations that inform patient care. The program, initially piloted in 2017, has provided over 2,300 consultations to date, with positive patient satisfaction reported. In June 2018, the initiative received the Innovation Award at the Home Care Alliance of Massachusetts’ annual event, recognizing its impact on patient care in the community.

2,300

CONSULTATIONS TO DATE, WITH POSITIVE PATIENT SATISFACTION REPORTED
Patient Centered Care Recognized

After a rigorous multi-year review and accreditation process, Martha’s Vineyard Hospital (MVH) has achieved Patient Centered Medical Home designation from the National Committee for Quality Assurance for its comprehensive approach to primary care services on the island. This model of care coordinates specialty care and community resources through the primary care medical home in order to meet each patient’s physical and mental needs in a more holistic manner. The designation recognizes excellence in patient centered coordinated care, accessible services, and the quality and safety offered by the MVH Primary Care Department. Under this model, patients will continue to benefit from interdisciplinary, coordinated care teams and personalized care plans – ultimately helping to lower costs while improving the patient-provider experience strengthened by its relationship with Massachusetts General Hospital.

AllWays Health Partners

In August 2018, Neighborhood Health Plan announced that, starting on January 1, 2019, it was changing its name to AllWays Health Partners. This new brand speaks to an organization that is ready to redefine the health care experience by challenging the industry status quo, listening to customers, and putting the needs of people first.

With over 30 years of experience, AllWays Health Partners comes from a tradition of innovation, value, and customer service. The new brand was created to drive the evolution and success of multiple lines of business – with a particular focus on accelerating commercial growth by listening to customers’ needs and developing innovative products and programs to meet them.

AllWays Health Partners will leverage its unique position as a member of Partners HealthCare to improve health outcomes and the experience of accessing health care and coverage.

“AllWays Health Partners and Partners HealthCare together can remove friction points to make the experience as seamless as possible for our provider partners, and for our members to access the care they need when they need it, while managing costs,” says David Segal, President and CEO, AllWays Health Partners.

Examples of AllWays Health Partners and Partners collaborations include Partners HealthCare on Demand and the iHeart Champion program (see pgs. 45 and 47, respectively).
To provide the best care, we need to ensure that our practitioners are at their best. Recent evidence suggests a significant rate of burnout among U.S. physicians — including those who work at Partners HealthCare. Marked by exhaustion, cynicism, detachment, and negativity around their work, burnout was identified in Partners doctors through multiple surveys in 2017 and 2018 — mobilizing the system to address the trend.

In 2018, a task force led by Marcela del Carmen, MD, Chief Medical Officer, Massachusetts General Physicians Organization (MGPO); Jessica Dudley, MD, Chief Medical Officer, Brigham and Women’s Physicians Organization; Joseph Harrington, MD, Internal Medicine Specialist, Charles River Medical Associates; and Thomas Sequist, MD, Chief Quality and Safety Officer, Partners, implemented a cross-Partners strategy including multiple key initiatives. A grant program was created to test 33 wellness-promoting pilot programs. These spanned several areas, from the creation of affinity groups such as a female surgeon dinner club, to an exercise buddy program to encourage physical fitness, to “scribes” for charting tasks at the point of care, and a central call service to alleviate on-call duties.

Additionally, a Partners eCare pilot program was developed to optimize physicians’ use of the electronic health record, shown by the survey to be one perceived driver of burnout. The program included at-the-elbow support from Partners eCare experts providing real-time guidance on efficient system use.

The strategy enabled the rapid collection of data on the pilots’ effectiveness, as they rolled out across physician organizations at Massachusetts General Hospital, Brigham and Women’s Hospital, Newton-Wellesley Hospital, and North Shore Medical Center. Ideas were shared broadly at a Physician Wellness Symposium hosted by Partners in September 2018. “The power of Partners is that we have economies of scale — we can test a number of ideas at once,” notes Diane O’Connor, Corporate Director, Partners Quality and Safety. “Once we find what works, we can replicate it across the entire system.”

One successful pilot, at-the-elbow support for Partners eCare, is now expanding through virtual means to reach a greater number of Partners physicians at their own convenience. “The investment in at-the-elbow support for primary care providers has had a very meaningful, positive impact on our work-life balance. The program was tailor-made, providing concrete recommendations that made an immediate difference,” elaborated Blair Fosburgh, MD, Primary Care Physician, MGPO.

Given the success of the first grant program, additional grant-funded pilots will be tested and measured. “This topic is so highly relevant across the country, and Partners is giving our physicians a voice — we’re saying we, too, have burnout, but we’ve seen such an impact with these initiatives,” concludes O’Connor.

Below: Drop-in pet therapy sessions are one pilot program tested at Brigham and Women’s Hospital as part of cross-Partners physician wellness initiatives.
ED Navigators Expand Care Continuum for Vulnerable Patients

For Partners HealthCare’s most vulnerable patient populations, the emergency department (ED) is a frequent point of care for both medical and social health needs. These patients, many of whom are covered by the Partners HealthCare Choice Plan as part of the Medicaid Accountable Care Organization (ACO), tend to visit the ED at a higher rate than the general population — presenting an opportunity to meet these individuals at that point of engagement, connecting them with services and resources that support long-term health.

Launched in March 2018 as part of the Partners Medicaid ACO, the ED Navigator Program strengthens the link to primary care and reduces avoidable ED visits by providing appropriate supports and navigation services to address patients’ complex health needs.

ED Navigators are currently in place at Brigham and Women’s Hospital, Massachusetts General Hospital, and North Shore Medical Center (NSMC) Salem Hospital, where they have conducted 2,284 initial patient encounters and have made 2,783 referrals for patients and families to a wide range of health care professionals, supports, and services as of February 2019.

By nature, EDs are fast-paced and often frenzied environments, which can be daunting for patients. ED Navigators offer a listening ear and a link to helpful resources. “Building relationships with patients allows me to engage them back to primary care while also connecting them to resources in the community, social workers at the primary care offices, and Community Resource Specialists,” says Hannah Godfrey, ED Navigator at NSMC.

The new ED Navigator program draws on the best practices cultivated through other patient-support programs instituted over the past several years across Partners, including at NSMC. For example, NSMC Navigator Yovanny Fana has worked for over 10 years connecting vulnerable patients outside of the Partners Medicaid ACO with chronic care management, connections to social services, and bilingual communication. This is knowledge she’s shared as a mentor to Hannah, supporting quality care in a fast-moving environment.

“We knew we could better address our patients’ social determinant gaps and create a support structure through our encounters with them in the ED,” says Amy Flaster, MD, Associate Medical Director, Partners Population Health. “We focused on leveraging that moment to connect them with the right resources across our system. Patients want to live their healthiest lives; the ED Navigator program connects these patients to the primary care resources and social services to bring these goals to fruition.”

Above: Hannah Godfrey, North Shore Medical Center
Community Impact
The success of our network is measured by the health of the communities we serve. That’s why we believe that our role extends beyond the traditional boundaries of health care to include ensuring the wellness of individuals and their families, meeting critical social needs, and contributing to the overall health of the regional economy.
This belief represents more than a commitment—it’s our calling. It’s what drives us to tackle community-wide challenges such as the opioid epidemic by engaging every aspect of our system. We train our providers to provide the right treatment for patients with substance use disorders at our emergency departments. We aim to help these patients fulfill their roles as parents, employees, and family members when they go back into their communities. And we create partnerships with law enforcement, social services, and the business community to address the problem at its roots.

Our sense of community goes beyond geography. From a new sustainably built hospital on Nantucket to a system-wide decarbonization effort and nursing-led research initiative, we are tackling the dire humanitarian and economic threat of global climate change head-on. And when a crisis hits, we take a public health approach to help protect lives by equipping first responders—and even the general public—with the knowledge to make a difference.

We work toward ensuring the collective strength of our communities. As Massachusetts’ largest employer, we must create economy-sustaining jobs and confirm we have the workforce necessary to meet our patients’ needs in the future. We have an obligation to be an anchor for the communities we serve, as well as for our member institutions who stand to benefit from our collective success.
Our sense of community goes beyond geography.
Reducing the Personal Impact of Substance Use Disorders

As society aims to reduce the personal and economic impact of substance use disorders (SUDs), Partners HealthCare is building resources to provide the continuity of care that is so critical to the recovery process.

Massachusetts General Hospital’s (MGH) newly launched HOPE (Harnessing Support for Opioid and Substance Use Disorder in Pregnancy and Early Childhood) Clinic provides targeted care for expectant mothers recovering from SUDs. A partner to MGH’s Bridge Clinic, the HOPE Clinic delivers integrated care for women, their partners, and their children from pregnancy through the baby’s second birthday, with treatment options ranging from recovery coaches and addiction treatment to support for optimal prenatal and neonatal outcomes.

“Pregnancy provides a unique opportunity for women who are struggling with substance use disorders to engage in treatment,” says pediatrician Davida Schiff, MD, Medical Director, MGH HOPE Clinic. “Supporting women during pregnancy and sustaining that support following delivery is critical to help women and young families succeed.” A similar Cooley Dickinson Health Care program, New Beginnings, also provides supportive services for pregnant and postpartum women in recovery from SUDs.

Other Partners initiatives are connecting patients with the resources they need. The Brigham Health Bridge to Recovery – a new bridge clinic at Brigham and Women’s Hospital – offers a stepping stone for patients discharged from the Emergency Department or inpatient units who need continued treatment. Through the clinic, patients with SUDs receive individualized care including pharmacotherapy, individual and group counseling, case management, and peer support. This coordinated point of care is a vital safety net for patients who previously would have waited several weeks for an outpatient clinic appointment at Brigham and Women’s Faulkner Hospital due to high demand driven by the opioid epidemic.

“Our goal is to get high-risk patients started with medication and services they need immediately, then help them find the right program to support their recovery,” says Kate Takayoshi, NP-C, a Brigham Nurse Practitioner who sees a steadily increasing number of patients in the clinic alongside a team of multidisciplinary staff.

Taken together, these initiatives acknowledge the complexities inherent in treating patients with SUDs. “The opioid crisis is a systemic problem, so all components of the system must play their part in addressing it,” adds Joji Suzuki, MD, Director of the Division of Addiction Psychiatry at the Brigham. “It’s like diabetes or obesity; it requires a comprehensive treatment plan and ongoing provider support over a long period of time.”
Taken together, these initiatives acknowledge the complexities inherent in treating patients with substance use disorders.
A System-Wide Strategy on Opioid Prescriptions

Ever since new Massachusetts legislation on the opioid crisis passed in 2016, Partners HealthCare’s multidisciplinary Opioid Steering Committee has supported its implementation across the entire system. In addition to creating 28 system-wide opioid use best practices to guide quality improvement, the committee has established embedded tools within the Partners eCare system aimed at providing prescribing guidelines at the point of care. Important new innovations include e-prescribing of controlled substances and creating easy access to MassPAT, the state prescription drug monitoring program, from within the electronic health record. Newly developed patient and provider materials, as well as the creation of a chronic opioid registry, will also support Partners’ system-wide efforts to address substance use disorders across patient populations and care settings.

Building Community to Fight the Opioid Crisis

Newton-Wellesley Hospital (NWH) has partnered with the Middlesex District Attorney’s Office to launch the Charles River Regional Opioid Task Force, a regionalized approach to the opioid crisis that brings together resources from law enforcement, health care, human services, government, and nonprofits. In line with NWH’s commitment to supporting patients with substance use disorders and reducing the community impact of opioid misuse, the Task Force is driven by monthly meetings that identify needs and opportunities, as well as define ways to address the crisis with best practices, educational assets, and plant the seeds for new solutions and policy changes.

The Task Force is a regionalized approach to the opioid crisis that brings together combined resources.
Prescription medications are standard treatment for patients who present high blood pressure in the emergency department (ED). However, when a patient is dealing with a substance use disorder (SUD), doctors often have limited options. #GetWaivered, a new program at Massachusetts General Hospital (MGH), is expanding those options and enhancing outcomes for patients with opioid dependency.

Introduced by MGH Emergency Medicine Chief Resident Alister Martin, MD, the program encourages providers to participate in specialized training to prescribe buprenorphine (also known as Suboxone), which curbs opioid cravings and reduces withdrawal effects. Currently the standard of care, the medication is under-prescribed, in part, because it requires an eight-hour training course and a government waiver—not to mention physician hesitation to treat populations with SUDs. But experts agree that buprenorphine is an important treatment tool where few are available; one study showed that starting the drug in the ED improved the chances of treatment longevity by 50 percent. MGH is offering the medication, which 55 primary care doctors have been waived to prescribe, as part of a spectrum of efforts oriented toward patients’ recovery care, including multiple specialty clinics. Patients can also receive care from many additional nurse practitioners and physicians that have been educated in the nuances of addiction treatment throughout the Partners HealthCare network.

The human toll of the opioid crisis is easily seen every day across many Partners HealthCare institutions. But the crisis’ impact can also be felt on Massachusetts’ businesses, health care providers, and our overall economy. In 2018, a Massachusetts Taxpayers Foundation (MTF) report, funded by RIZE Massachusetts, sought to shed light on the magnitude of that impact. Its conclusion: the epidemic has brought a loss of $2.5 billion in diminished productivity and presenteeism—working less efficiently while ill or exhausted.

The report also noted that Massachusetts is at the epidemic’s forefront, with the fourth highest rate of opioid-related deaths in the nation—a position that will change only with decisive action. To that end, RIZE Board Chair David Torchiana, MD, then-Partners President and CEO, joined other health care leaders in a November 2018 Boston Globe op-ed to argue that addressing the economic toll of opioid use disorders will require a shared commitment from the private, public, and nonprofit sectors: “As we learn more about the impact of the opioid epidemic on our economy, the business community must now bring its commitment, brainpower, and resources to the table and become an equal partner in addressing this crisis, just as it has done in the past on other issues.”

The editorial calls for improving access to opioid use-related medications, making full use of tool kits provided by hospitals and insurers, leading by example to eliminate stigma and encourage sufferers to seek help, and using business buying power to influence public policy. Acknowledging the magnitude of the problem as described by the MTF/RIZE research, the editorial remains optimistic about the path ahead. “We are confident that when the public, nonprofit, and private sectors fully come together, we will get it done and make the Commonwealth even stronger,” it concludes.

Calculating the Economic Toll of Substance Use Disorders

#GetWaivered Program Expands Options in the ED
As serious accidents or attacks demonstrate, bleeding is the most common cause of preventable death from traumatic injury. Following the 2013 Boston Marathon bombings, initiatives like the White House’s “Stop the Bleed” national awareness campaign aimed to prepare laypeople to treat compressible hemorrhages. In fact, according to Meghan McDonald, MSN, Nurse Director of the Trauma Program at Brigham and Women’s Hospital, intervention from bystanders can help save lives. “Educating laypeople on hemorrhage control, either by direct pressure or tourniquet application, is the right and responsible thing to do as a trauma center,” she says.

McDonald co-authored a 2018 Brigham study, in partnership with Gillette Stadium and the New England Patriots, and with support from the Brigham’s Gillian Reny Stepping Strong Center for Trauma Innovation, to identify the best way to disseminate tourniquet education to the public. She found that in-person training was more effective than instructional flashcards or audio kits—insight that can inform public education.

Tourniquet application for external bleeds is only part of the story. In the case of a noncompressible abdominal hemorrhage, the average 36 minutes of blood loss as patients are transferred from the emergency department to operating room is a major challenge. “In the history of medicine, the only way to stop internal bleeding is through surgery,” says David King, MD, Trauma and Acute Care Surgeon in the Massachusetts General Hospital (MGH) Trauma Center. “You can’t put pressure on the bleeding like you can with other body parts.”

**Educating laypeople on hemorrhage control is the right and responsible thing to do as a trauma center.**

— Meghan McDonald, MSN, Massachusetts General Hospital

Throughout 10 years of research and clinical work, Dr. King and an engineering team have developed ResQFoam, an injectable polyurethane trauma foam that quickly expands to fill the abdominal cavity, applying stabilizing pressure to the wound. Easily removed in surgery, the foam received FDA approval for a clinical trial with 40 patients. If the foam receives full approval, this innovation can save lives—at MGH or at any remote trauma setting.
Wentworth-Douglass Hospital (WDH) is expanding the depth and variety of local health services available to patients in New Hampshire’s Seacoast region. Over the next two years, the Portsmouth facility will grow to include a campus of three buildings, offering comprehensive primary care, a women’s health and breast health center, medical and radiation oncology, diagnostics, orthopedics and sports medicine, and both general and plastic surgery — as well as subspecialty services through a relationship with Massachusetts General Hospital. All of this has been made possible through positive growth and strong support from the local community.

This expansion beyond the main WDH Dover campus will also make a significant difference in the lives of people with substance use disorders. WDH has been designated as the Seacoast region services hub for Doorway-NH, a federal- and state-funded program that offers rehabilitation, recovery, and support services for these patients struggling with addiction to opioids, alcohol, and other drugs. The program, a significant step forward in the region’s efforts to combat the opioid crisis, simplifies the process of seeking and receiving support from licensed alcohol and drug counselors, who evaluate patients’ status and connect them to appropriate services.

“The new approach will provide an integrated, one-stop shop model, offering the full array of treatment, recovery, and self-sufficiency services,” says New Hampshire Governor Chris Sununu.

Nantucket Cottage Hospital (NCH) recently opened the doors to a new state-of-the-art facility that sets a high standard for patient care on the island while solidifying the hospital’s enduring role in the community. The new LEED Gold v4 certified building is able to withstand hurricane winds exceeding 185 miles per hour, which meets specifications established by Miami Dade County. This strengthened infrastructure builds on the NCH promise to continue serving the community through environmental and seasonal challenges inherent to an island hospital. NCH’s 106,000 square-foot facility sets a new national bar for small community hospitals, providing a centralized resource for both Nantucket visitors’ and residents’ health care needs supported by resilient and environmentally-conscious architecture.
Partners 2.0: Innovation-Led Improvements to Patient Experience

As Partners 2.0 increases efficiency and improves the patient and provider experience across the system, more innovations continue to be put into practice. One, an enterprise-wide radiology platform utilizing advanced digital imaging, promises to unify all radiology departments and streamline care at acute hospitals within Partners HealthCare.

Unifying separate diagnostic imaging, viewing, and reporting platforms, the new system will enable any Partners provider to immediately access any patient imaging—including MRI, CT, ultrasound, and X-ray—across the network, saving time for both patients and providers.

The move to one vendor across the system for large volume IV infusion, starting with Brigham Health, involved input from a cross-Partners interdisciplinary group including nurses, physicians, pharmacists, biomedical, IT, and supply chain professionals over the course of a year. This change will streamline care and costs by aligning purchasing with best practices.

These are just a few of the many ways that this collaborative initiative is helping us to look at issues as a system to ensure that we are delivering care effectively and efficiently.

— Stephen Ledbetter, MD, Brigham Health

This initiative comes on the heels of two other recently announced Partners 2.0 projects: centralized credentialing and the move to a single vendor for large volume IV pumps.

The new, enterprise-wide credentialing system will save significant resources, especially for the nearly one-third of Partners providers currently credentialed at multiple network locations. With standardized credentialing across Partners institutions, providers with appointments at more than one Partners hospital will submit their application or reappointment details only one time per cycle. Currently, those with appointments at Massachusetts General Hospital, Brigham and Women’s Hospital, and North Shore Medical Center—for example—must enter all of their information separately at each hospital.

“These are just a few of the many ways that this collaborative initiative is helping us to look at issues as a system to ensure that we are delivering care effectively and efficiently,” says Stephen Ledbetter, MD, Medical Director, Medical Imaging IT, Brigham Health.
Workforce Development Program
a Win-Win for Community, Patient Care

When Jamaica native Altrecia Henry was looking for a career to support her growing family after moving to the U.S., the Partners in Career and Workforce Development (PCWD) Program was just the jump-start she needed. In 2014, Henry completed the eight-week PCWD program that included an internship assignment with the Education Department in Neurology at Massachusetts General Hospital (MGH). Starting with a permanent Patient Service Coordinator role at MGH, Henry went through additional MGH-supported professional development courses and was promoted to Medical Education Programs Coordinator. Bursting with confidence, she is now pursuing a degree in Healthcare Administration with the help of MGH scholarships. Today, she draws on her own experience to offer encouragement and inspiration to other program participants.

PCWD brings significant benefits to the local economy and patient care alike. Not only does the program fuel the community labor market and support individuals and families, it also helps Partners institutions meet their own labor demands with skilled health workers.

“We’re currently focused on the PCA/CNA training program, which helps to fill a very high-demand role within Partners and in our local labor market. We will continue to align our work with our Human Resources colleagues and hiring managers to ensure that we are preparing program participants for the right roles at the right time,” says Elena Kuyun, PCWD Community Programs Manager. “It’s a way of further rooting our institutions within our communities by helping individuals like Altrecia enter meaningful careers while ensuring we can meet the needs of our patients.”

The program is currently working to address the system-wide shortage of Patient Care Associates (PCAs) through a five-week Certified Nursing Assistant (CNA) training program offered in collaboration with the Academy for Healthcare Training in Malden and community-based organizational partner, Project Hope. PCWD also assists with candidate outreach, recruitment, and case management services as needed. Training is currently offered three times per year for up to 60 students annually. At the end of the Partners-supported program, participants earn dual Nursing Assistant and Home Health Aide certificates, qualifying them to enter into PCA roles within the Spaulding Rehabilitation Network and to take the Massachusetts Nurse Aide Certification Exam at Partners’ expense.

Above: Altrecia Henry, Massachusetts General Hospital
Recognizing the pressing threat posed by climate change to both human health and the health care system, Partners HealthCare joined Harvard Medical School and more than 25 affiliated institutions in fall 2018 on a commitment to extensively decarbonize operations. Reducing the carbon footprint of health care institutions is critical to a society-wide effort to fight climate change. Fossil fuels emit both greenhouse gas emissions and health-harming air pollutants implicated in conditions such as asthma, lung cancer, and cardiovascular disease. In addition, catastrophic weather events driven by climate change can threaten critical health care infrastructure, such as the medical facilities destroyed by Hurricane Maria in Puerto Rico, spurring care shortages.

This effort by Harvard-affiliated hospitals and clinical institutes is part of a Decarbonizing Healthcare initiative underway at the Harvard Global Health Institute, which drives similar commitments from other hospitals in Massachusetts and across the globe.

Environmental Stewardship, on the Island and Beyond

At Martha’s Vineyard Hospital (MVH), a commitment to caring for the community extends to the island’s ecosystem. That’s why MVH supports environmentally friendly practices like responsible waste and energy management. Even the hospital building itself embodies this sense of stewardship, implementing cutting-edge technologies and strategies that earned it LEED certification.

These efforts were recently expanded by a new collaboration between the MVH Facilities Department and the Massachusetts General Hospital Biomedical Engineering Department, which launched in January 2019. This program is designed to enhance the management of medical equipment life cycles and the number of patients they serve.

Taken together, these steps support MVH’s goals: to enhance the quality of care for patients, to improve the island’s environmental health, and to increase health care services.

Above: Martha’s Vineyard Hospital
Photo credit: Ashley Tilton Photography

A Commitment to Decarbonize for the Climate

Recognizing the pressing threat posed by climate change to both human health and the health care system, Partners HealthCare joined Harvard Medical School and more than 25 affiliated institutions in fall 2018 on a commitment to extensively decarbonize operations. Reducing the carbon footprint of health care institutions is critical to a society-wide effort to fight climate change. Fossil fuels emit both greenhouse gas emissions and health-harming air pollutants implicated in conditions such as asthma, lung cancer, and cardiovascular disease. In addition, catastrophic weather events driven by climate change can threaten critical health care infrastructure, such as the medical facilities destroyed by Hurricane Maria in Puerto Rico, spurring care shortages.

This effort by Harvard-affiliated hospitals and clinical institutes is part of a Decarbonizing Healthcare initiative underway at the Harvard Global Health Institute, which drives similar commitments from other hospitals in Massachusetts and across the globe.
A new, nurse-led MGH Institute of Health Professions initiative tackles the effects of climate change — which the United Nations (UN) calls a dire threat to global human health.

The Center for Climate Change, Climate Justice, and Health — the first initiative of its kind spearheaded by nurses — will leverage education, research, and advocacy to bring attention to the impact of climate change on population health, while convening leaders in the field for public discourse and advocacy. It brings together the scholarly work of 10 MGH Institute nursing faculty, many of whom have published on the subject — including Assistant Professor Suellen Breakey, PhD; Professor Inge Corless, PhD; and Professor Patrice Nicholas, DNSc, whose co-authored textbook, *Global Health Nursing in the 21st Century*, was the first to present the successes, challenges, and opportunities of global health nursing.

“Many health care professionals are unaware of how climate change will affect their professional positions, but the effects already are apparent with such things as higher rates of asthma from air pollution and an increase in health issues that arise after natural disasters,” said Dr. Breakey.

A recent UN report recommended “far-reaching and unprecedented change” to human behavior to stave off the devastating impacts of climate change by 2040. According to MGH Institute Dean Inez Tuck, PhD, the Center will foster integration of content relevant to climate change, climate justice, and health in educational curricula. It will also prepare health professionals for the impacts of climate change on patients, families, and communities in clinical practice, as well as deepen the MGH Institute’s commitment to research and scholarship.

“We can work together in our roles as teachers, clinicians, policy makers, scientists, and environmentalists to address these pressing issues,” explains Tuck.
A newly formalized partnership between MGH Institute of Health Professions and neighboring Harvard-Kent Elementary School in Charlestown, Mass., is bringing value for students at both educational facilities. The initiative, which builds on a long-standing collaboration between the Institute’s Communication Sciences and Disorders Department and the school, now includes graduate students from nursing, occupational therapy, physical therapy, and physician assistant studies.

According to Jason Gallagher, Principal at Harvard-Kent, this stronger association will leave a long-lasting, positive impact on his students. “It recognizes the importance of what the MGH Institute can do to help our students become better learners.”

Since it launched last spring, nearly 200 graduate students, faculty, and staff have taken part in a variety of activities at the school, starting with a community day of service and then spanning the areas of language and literacy, community health, mental health, and physical fitness. In the process, the graduate students develop strategies to balance classroom dynamics and navigate the day-to-day rewards and challenges of working with individuals from diverse backgrounds. In return, the young students benefit from enhanced learning and ongoing mentorship. Other activities include a mindfulness course led by an MGH Institute occupational therapy faculty member for Harvard-Kent teachers and pupils, as well as a summer literacy program.

“This partnership will help to break down the walls in communities by teaching the next generation of learners,” notes State Representative Dan Ryan, whose district includes Charlestown.

Left and above: MGH Institute of Health Professions nursing students interact with third graders at Harvard-Kent Elementary School

This partnership recognizes the importance of what the MGH Institute can do to help our students become better learners.

— JASON GALLAGHER, PRINCIPAL, HARVARD-KENT ELEMENTARY SCHOOL
Future of Health
At Partners HealthCare, the future is now. Today, the innovations of tomorrow are emerging in our laboratories and treatment rooms — the product of investigation, discovery, and the relentless pursuit of new ways to prevent and cure disease.
As we uncover the genetic and cellular roots of disease, we raise hope for diagnoses that, until now, were considered hopeless. The pursuit of entirely new treatments based on a patient’s unique biology is yielding unprecedented insights and advances for such conditions as inherited retinal disease and eating disorders, while dedicated research within the Spaulding Rehabilitation Network uncovers the science of recovery. All along these research pathways are patients — both today’s heroes as our clinical trials’ first-ever participants, and tomorrow’s beneficiaries of the innovations we seek to uncover.

These discoveries also take shape beyond biology, through technologies designed to enhance both the design and the delivery of care. As new telehealth tools electronically facilitate the right care at the right time, data algorithms layered on our shared medical record system more closely align care with individual patients’ risk factors and diagnoses — while reframing how we track outcomes and improve quality.

Our progress doesn’t always come in high-tech form. At Newton-Wellesley Hospital, a focused effort to reimagine the patient experience has confirmed an essential truth: Innovation in patient care at times requires no more than listening more closely to our patients’ wishes and needs. As we move into the future we imagine, those needs remain the true north guiding our work forward.
At Partners HealthCare, the future is now.
Robotic surgery, once only a possibility, is now the standard of care for many types of minimally invasive surgeries. With the opening of a robotic surgery program in 2018, North Shore Medical Center (NSMC) has made this innovation more accessible to its local community.

During robot-assisted surgery, a surgeon, guided by high-definition, magnified 3D views of the surgical site, directs robotic arms to perform intricate procedures. As an extension of the surgeon’s own hands, the robot and its instruments enable finer access, maneuverability, and technical precision. Currently, the NSMC surgical team — including surgeons from both NSMC and Massachusetts General Hospital — are using robotic technology in general, urologic, and thoracic surgical cases. The robotic approach can improve outcomes in procedures considered challenging through traditional, open approaches due to poor access, such as prostate cancer, low-sited colorectal cancers, complex hernias, and operations in the throat.

“We are excited to offer this new technology and improve the recovery process.”

NSMC joins Newton-Wellesley Hospital as a community hospital that has recently launched a robotic surgery program. “NSMC and Partners HealthCare have made the commitment to bringing academic medical center-level technologies to the communities we serve, so our patients no longer need to travel to benefit from them,” adds Dr. Rubin.

To build the robotic surgery program, NSMC has recruited a new urologist and is providing intensive training to build the expertise of the entire surgical team — from surgeons to nurses and surgical technologists. Dr. Rubin explains, “The robot will also enhance our ability to recruit outstanding, innovative surgeons to our community.”
During robot-assisted surgery, a surgeon, guided by high-definition, magnified 3D views of the surgical site, directs robotic arms to perform intricate procedures.
A new institute is harnessing the unique resources of the Spaulding Rehabilitation Network to unlock the science of recovery through rehabilitation research.

Spaulding Research Institute combines five dynamic Spaulding specialty centers working at the frontiers of science to treat and cure key causes of disability: spinal cord injury, brain injury/concussion, stroke, musculoskeletal injury, and chronic pain. These centers all share the same goal: to shed light on the biology of recovery, through laboratory and clinical research exploring genetics, biomarkers, and injury patterns. Integrating these efforts under the umbrella of the Institute will help to develop more precise rehabilitation plans that help patients maximize their recovery.

Although one in five U.S. adults live with a disability, only 0.3 percent of National Institutes of Health research spending is targeted toward rehabilitation. The Spaulding Institute will fill this gap by accelerating the pace of discovery and expanding their world-class research and care team. Recent developments include innovative exercise and fatigue-reducing therapies for stroke patients uncovered by the Stroke Research and Recovery Institute, as well as augmented reality therapy from the INSPIRE Lab to help patients with spinal cord injuries walk again.

The Institute was launched in September 2018 with an event that included “RehabRAPS” — informative updates on current research — and the opportunity for participants to interact with researchers directly. “What’s remarkable is how things have changed,” says Ross Zafonte, DO, Senior Vice President Medical Affairs, Research and Education at Spaulding. “And Boston is a nexus for all of this. We are in a unique time and place where we can lead the world in helping the billion people with some type of disability.”

Better Depression Treatment Through Data

New research from McLean Hospital uses a statistical algorithm to predict which depression patients are most likely to benefit from antidepressant medication. The study drew on data collected from a large multi-site clinical trial of antidepressant medications and analyzed patients’ demographic and clinical characteristics.

With this information, McLean co-investigators Christian A. Webb, PhD, and Diego A. Pizzagalli, PhD, developed a statistical algorithm predicting that one-third of subjects would derive meaningful therapeutic benefit from antidepressant medications, relative to placebo. Though little difference was observed between the medication and placebo groups overall, those predicted to be more suited to antidepressants had significantly better outcomes when assigned to the medication.

The researchers are now looking to further refine the algorithm for use in “real-world” clinics, in order to help personalize care plans for patients with depression and other conditions. “Rather than using a one-size-fits-all approach, we’d like to optimize our treatment recommendations for individual patients,” says Dr. Webb.

Research Unlocks the Science of Recovery
Even though eating disorders like anorexia nervosa, bulimia nervosa, and binge eating disorders affect more than 30 million Americans, their biological causes are still poorly understood. Shedding light on those neurological roots — and the pathways for future treatments — is the mission of the first and only national brain bank dedicated to eating disorders, in development at McLean Hospital.

The National Eating Disorders Brain Bank is a project of the Foundation for Research and Education in Eating Disorders (FREED) and the Harvard Brain Tissue Resource Center (HBTRC) at McLean. It will provide a focused collection of brain and tissue samples to enable investigators at top medical and research institutions to examine the molecular and cellular level brain changes that occur in patients with eating disorders, as well as the accompanying impact of altered nutrition on the brain.

Eating disorders are complex conditions that profoundly impact patients and families — and are increasingly seen as public health crises due to high associated rates of comorbid conditions, suicide, and death. Yet treatment options remain scarce; the FDA has specifically approved only one drug to treat binge eating disorders, and none for the other eating disorders. The National Eating Disorders Brain Bank will be invaluable to the growing research community dedicated to filling this treatment gap with innovation.

“We have long recognized the need to develop similar resources to support research into eating disorders, and are delighted to establish this partnership with FREED to launch this program,” says Sabina Berretta, MD, Scientific Director of the HBTRC.

Eating disorders including anorexia nervosa, bulimia nervosa, and binge eating disorders impact more than 30 million Americans.
Just two decades ago, patients diagnosed with inherited retinal disorders had little reason to expect a cure, or even an effective treatment option. Times have changed: today, the pace of innovation in precision ophthalmology has accelerated significantly thanks to a new understanding of the genetics behind such retinal disorders. And the Inherited Retinal Disorders Service at Massachusetts Eye and Ear (MEE), drawing on over 45 years of innovation in retinal care, is at the center of that transformation.

There are over 260 known genetic versions of inherited retinal degeneration (IRD), a cause of progressive sight impairment and blindness. Of those, approximately two-thirds are diagnosable with the Genetic Eye Disease (GEDi) Test, provided as a first step at MEE. Investigators in the Ocular Genomics Institute (OGI) at MEE are also hard at work searching for the genetic causes of disease in the remaining third of patients. Once diagnosed with a specific genetic type of IRD, patients may then be eligible for one of the gene or genetic therapies under investigation by leading research institutions. MEE is leading or participating in six of the 11 such trials currently underway.

Subjects in the clinical trials receive their gene therapy treatments mostly by sub-retinal injection, an outpatient surgery performed by highly trained retina surgeons at MEE. The clinical trials require a significant time commitment from patients, involving multiple visits, with one motivation being the potential for substantial quality of life improvements. “These patients in our trials are heroes, as the first humans participating in these studies,” says Eric Pierce, MD, Director of the Inherited Retinal Disorders Service and the Chatlos Professor of Ophthalmology, MEE and Harvard Medical School.

The momentum in the IRD field is in part due to the recent FDA approval of the first gene therapy drug for an inherited disease, a form of early onset, severe IRD called RPE65-associated retinal degeneration. The team in the OGI and Inherited Retinal Disorders service at MEE are one of the Centers of Excellence at which this treatment is being provided; in early 2018 the team performed the first such post-approval treatment for a 13-year-old boy (see page 43).

“There’s a new element here that didn’t exist before: there’s hope,” says Dr. Pierce. “The application of genetic therapies for these types of disorders is a game-changer.”
In spring 2018, Massachusetts Eye and Ear (MEE) made history by significantly improving a young patient’s eyesight and advancing the science of genetic therapies for any inherited disease. A surgical first, the administration of the novel therapeutic Luxturna treated a 13-year-old patient with a defective RPE65 gene — a mutation that impacts the eyesight of 1,000-2,000 Americans by preventing the proper production of a protein that processes light in the eye. The newly approved treatment — the first gene therapy for inherited disease approved by the FDA — involves injecting a modified virus into a patient’s eyes to correct a deficiency caused by mutations in the RPE65 gene. These mutations prevent the production or function of a protein needed for proper functioning of the retina, the light-sensitive tissue in the back of the eye that initiates vision.

For pioneering patient Jack Hogan, the treatment was literally a game-changer: he can now play basketball in low light, as well as enjoy clear sight in the classroom. MEE surgeon Jason Comander, MD, clinically confirmed these results — improved visual acuity and the ability to see more with less light. Such encouraging early signs offer hope as research into additional gene therapies for inherited retinal disorders continues, with MEE as a hub.
Advanced Stroke Care, with a Click

In the aftermath of a stroke, time equals brain function. The faster the treatment starts, the better the odds are that a patient will survive and recover. A new North Shore Medical Center (NSMC) partnership with Massachusetts General Hospital (MGH) is using advanced technology to bring the right care to NSMC patients faster.

The TeleStroke program provides NSMC with immediate access to on-call neurologists at MGH to advise on the care of individual patients. When a patient arrives at the NSMC Emergency Department with symptoms of a stroke, the TeleStroke system is activated. A high-resolution camera enables the NSMC care team — emergency physicians, intensivists, hospitalists, residents, and nurses — to connect via videoconferencing with consulting MGH neurologists, who, in real time, visualize patients and review symptoms such as weakness and pupil dilation with a high degree of accuracy. This remote examination then enables the collective care team to quickly mobilize and treat the patient with clot-reducing therapies such as tissue plasminogen activator, or tPA — which must be administered within a short window of time after the onset of a stroke.

If additional treatments require a transfer to MGH, NSMC also has a rapid process in place. "This protocol, together with the TeleStroke service, has resulted in excellent outcomes for our patients," says Eileen Allosso, Nurse Practitioner and NSMC Stroke and Teleneurology Program Coordinator.

With the TeleStroke system, it now takes less than five minutes for a neurologist to initiate evaluation of a stroke patient following activation. Patients and clinicians find that time-sensitive treatment is administered more quickly and hospital length of stay and readmission rates for strokes have decreased.

"This is a highly effective collaboration that includes regular meetings of our care team to address complex cases and examine our stroke outcomes," says Joan Casper, RN, Executive Director of the NSMC Department of Medicine and Cardiology. "It enables us to advance comprehensive care for our stroke patients in a meaningful and measurable way."

This is a highly effective collaboration that includes regular meetings of our care team to address complex cases and examine our stroke outcomes.

— JOAN CASPER, RN, NORTH SHORE MEDICAL CENTER
**Urgent Care Visits, from Your Screen**

A new initiative from AllWays Health Partners and Partners HealthCare is bringing something novel to telehealth services. Using the software platform from Teladoc Health, Partners HealthCare on Demand is the first solution to provide convenient, high quality urgent care telehealth services from world-class Partners clinicians. Managed by Partners Connected Health in collaboration with Partners Community Physicians Organization and AllWays Health Partners, the service links patients with providers who can deliver superior care for routine illnesses and injuries through secure online or mobile-accessible interactive video visits. Post-visit summaries are then integrated into the patient’s electronic medical record.

This unique service is one of Partners’ collaborative efforts aimed at improving patient engagement and access to care. It also demonstrates the opportunities for collaboration between Partners and AllWays Health Partners.

“This will be a big part of our care delivery strategy, and we expect usage to increase in the future,” notes Joseph C. Kvedar, MD, Vice President, Connected Health. “This is an important step toward fully integrated care delivery.”

**Rethinking Quality Measurement**

Over the past decade, big data has transformed almost every aspect of life, from the way we shop to the way we work, travel, and invest. At Partners HealthCare, big data has also had a profound effect on the way we assess the quality of the health care we deliver every day. Powered by Partners eCare, our electronic health record system, we have developed quality measures that paint a more accurate and comprehensive picture of the preventive and chronic care outcomes and effectiveness delivered to our primary care population — not only at a network level, but at the practice and provider level, a level of detail historically unavailable to the public. For the first time at Partners, we have a quality measurement system that allows us to evaluate the care we are delivering to all our primary care patients, and we are posting these data on our external website for the world to see.

“Our investment in a single health record has allowed us to completely rethink quality measurement,” explains Thomas Sequist, MD, Chief Quality and Safety Officer, Partners. “We’re moving beyond traditional, claims-based quality measures to employing information that our physicians put into our patient clinical records daily to monitor and improve the health of individual patients across our system.” This move has resulted in significantly improved engagement in quality improvement on the part of our physicians. For example, Partners physicians can review and compare care for their patients with diabetes with other physicians across the system, and then identify those patients who can benefit from a call from a population health coordinator, a visit to a nutritionist, or perhaps just updated laboratory tests. Through the use of registries, care teams are able to more easily identify patients needing services, even if they haven’t had a recent visit with their primary care provider.

“This is a substantial improvement that translates into real-time, actionable knowledge for our providers — and an unprecedented level of transparency for our patients,” concludes Dr. Sequist.
Eye-Opening Collaboration Transforms Patient Care

How can a hospital raise the bar on the patient experience while reenergizing employee satisfaction? That was the driving question that drove Newton-Wellesley Hospital (NWH) to start a partnership with design thinking firm IDEO.

The engagement began with visioning: How could NWH become the preferred hospital by understanding the ways patients want to engage with providers? How can employees be fully engaged as a team? And how could NWH be truly woven into the surrounding community. “We focused on how to build capabilities by unlocking new ways of working, so that innovation leads to transformation and the work continues long after our collaboration is over,” explains Kirsty Boyd, Director, Department of Tomorrow, NWH.

Those conversations led into the project’s pilot phase in the Women’s Imaging Center, where key principles — respect, gratitude, listening — were drafted to guide change, and an inside-out review process revealed key opportunities for improvement.

“It was eye-opening,” shares Janet (Jodi) Larson, MD, Chief Quality and Experience Officer, NWH. “We didn’t always align the patient experience with their expectations.” To close that gap, Women’s Imaging re-architected the patient experience to match mammography patients’ individual wishes, creating new workflows that provided either “extras” — headphones, calming spaces, meeting the radiologist — or workstations and faster service.

These lessons became the building blocks for the next project taking place within the Outpatient Surgery Center, a more complex, multidisciplinary hospital division. Relying fully on staff from the moment they arrive, Outpatient Surgery patients’ experiences was similar to that of air travelers — so the team met with JetBlue to learn from their customer service practices. Those insights led to changes such as summaries being sent to patients before, rather than after, visits, and using text messages to identify patients who could benefit from extra individualized attention. Regular text updates and a care cart are available to patients when delays occur.

As these and other innovations are pushed to other departments, evidence of a true transformation at NWH is apparent: a new Department of Tomorrow is fostering ongoing change, and employees are sharing renewed enthusiasm for the patient-centered care mission that brought them to health care in the first place. “We now have an army of design thinking converts willing to share their transformational thinking,” says Michael R. Jaff, DO, NWH President.
Combining Care Teams and Innovation to Reduce Heart Risk

A pioneering partnership aims to redesign preventive care around America’s leading cause of death. The iHeart Champion program, developed by Brigham Health’s Cardiovascular Medicine Innovation Group and launched by AllWays Health Partners, reduces the risk factors for heart disease by lowering blood pressure and managing cholesterol through technology-enabled precision intervention among high-risk patients.

Using customized algorithms to scan electronic medical records and identify high-risk patients, the program, which is also supported by Partners Population Health, engages digital tools and trained navigators to increase coordination between patients and their care teams. The goal is to remove barriers to compliance with treatment plans, including medication or lifestyle changes, by enhancing patient/provider communication.

Remote interventions to manage changes in medication doses, for example, can improve patients’ responses and reduce side effects, while eliminating the need for office visits for medication maintenance. This allows more patients to access medications with a proven track record of preventing heart attacks and strokes.

“This program is a great example of the opportunities that exist for improving health outcomes when AllWays Health Partners and Partners HealthCare combine their resources to develop industry-leading innovations on behalf of our shared members and patients,” says Tony Dodek, MD, Chief Medical Officer, AllWays Health Partners.

“The iHeart Champion program shows how innovation can fundamentally reshape health care delivery by catching a condition early in its development and giving patients the best odds at effectively managing their treatment,” continues Calum MacRae, MD, Vice Chair for Innovation, Department of Medicine, Brigham and Women’s Hospital.

The program saw positive results for its pilot patients, with those participating reporting a 40 percent reduction in LDL cholesterol levels in as little as 12 weeks. Patients can be referred directly to the iHeart Champion program by their primary care physician.

The iHeart Champion program shows how innovation can fundamentally reshape health care delivery.

— CALUM MACRAE, MD, BRIGHAM AND WOMEN’S HOSPITAL
The Center’s team offers a wide range of minimally invasive approaches that use smaller incisions and lead to faster post-surgical recovery.

A new, minimally invasive spine surgery program at Brigham and Women’s Faulkner Hospital (BWFH) offers community patients comprehensive, world-class care for spinal disorders. The Comprehensive Spine Center draws on the expertise and research of new Center Director Andrew K. Simpson, MD. Dr. Simpson’s clinical interests include the treatment of degenerative spine pathologies of the cervical, thoracic, and lumbar spine, with special interests in microendoscopic and minimally invasive treatment options.

With a multidisciplinary team approach, the Center’s neurosurgeons and orthopedic surgeons work with specialists in physical medicine, pain management, and imaging to plan each patient’s care — with an eye toward noninvasive, nonsurgical innovations as a preferred first step. “We all aim to get patients over their spine problems and back to their lives as soon as possible,” says Dr. Simpson.

If surgery is determined to be the best option for a patient’s treatment, the Center’s team offers a wide range of minimally invasive approaches that use smaller incisions and lead to faster post-surgical recovery. “I trained in Japan where I learned an innovative procedure called microendoscopic spine surgery. Currently, only a few surgeons in the United States are able to offer it,” explains Dr. Simpson. “Microendoscopy involves placing a small tube, with a diameter smaller than a dime, through a one-half inch incision. I use a tiny fiber optic camera and other specialized instruments to remove disc material and bone spurs that compress nerves in spine conditions such as stenosis and disc herniation. This type of surgery causes less damage to muscles and ligaments and other supporting structures of the spine, meaning patients experience lower complication rates, less pain, and a faster recovery. In fact, most patients return to work within a week or two.”

In addition to appointments at the Center at BWFH, patients will be offered appointment options at the Hale Building for Transformative Medicine at Brigham and Women’s Hospital, and at the Brigham Health Care Center in Chestnut Hill; surgeries will be performed at both the Brigham and BWFH.

Above and right:
Andrew K. Simpson, MD, engages with a patient at Brigham and Women’s Faulkner Hospital
Leadership

Partners Board of Directors
Scott M. Sperling  
Chairman
Yolonda L. Colson, MD
William M. Cowan, Esq.
Anne M. Finucane
John F. Fish
Wycliffe K. Grousbeck, JD
Susan Hockfield, PhD
Richard E. Holbrook
Albert A. Holman, III, MBA
James L. Kaplan, PhD
Anne Klibanski, MD
As of 05/01/19
Carl J. Martignetti
Cathy E. Minehan, MBA
Diane B. Patrick, Esq.
David W. Rattner, MD
Pamela D. A. Reeve, MBA
Scott A. Schoen, JD
Alexander L. Thorndike
David F. Torchiana, MD
Through 04/30/19
Gwill E. York, MBA

Partners Officers
Scott M. Sperling  
Chairman
David F. Torchiana, MD  
President and Chief Executive Officer
Through 04/30/19
Anne Klibanski, MD  
Interim President and Chief Executive Officer
As of 05/01/19
Peter K. Markell  
Treasurer
Maureen E. Goggin  
Secretary

Senior Leaders
Elizabeth G. Nabel, MD  
Brigham Health
Peter L. Slavin, MD  
Massachusetts General Hospital
David Segal  
AllWays Health Partners
David O. McCready, MBA  
Brigham and Women’s Faulkner Hospital
Allen L. Smith, MD  
Brigham and Women’s Physicians Organization
Joanne Marqusee  
Cooley Dickinson Health Care
Denise M. Schepici, MPH  
Martha’s Vineyard Hospital
John Fernandez  
Massachusetts Eye and Ear
Timothy G. Ferris, MD  
Massachusetts General Physicians Organization
Scott L. Rauch, MD  
McLean Hospital
Paula Milone-Nuzzo, PhD  
MGH Institute of Health Professions
Margot Hartmann, MD  
Nantucket Cottage Hospital
Michael R. Jaff, DO  
Newton-Wellesley Hospital
David J. Roberts, MD  
North Shore Medical Center
Lynn Malloy Stofer  
Partners Community Physicians Organization
David E. Storto  
Partners Continuing Care
Spaulding Rehabilitation Network
Gregory J. Walker, FACHE  
Wentworth-Douglass Hospital

Right: Christopher Reeves, MS,  
Massachusetts General Hospital

Back cover: Georg Bartisch, Ophthalmologica, 1583  
Rare Book Library, Massachusetts Eye and Ear

56