Inspire

BOSTON MEDICAL CENTER
SPOTLIGHTING EXCEPTIONAL
PEOPLE AND PROGRAMS

FALL | WINTER 2019

Inspire

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BOSTON MEDICAL CENTER

From the President

Dear Friends,

You may have noticed this issue of *Inspire* looks a little different. It's an exciting time for the publication; we've given it a bit of a facelift both in purpose and design. Moving forward, *Inspire* will feel more like a magazine, with longer articles that dig deeper into the unique stories of Boston Medical Center and our remarkable patients. I hope you enjoy the refresh as much as I do.

Change is a recurring theme these days at BMC, especially as we transition into a new phase of our fundraising. This past year, we wrapped up our *Building the New BMC* campaign—an unprecedented effort that raised $450 million in only six years, exceeding our goal by nearly $200 million and making ***Building the New BMC* the most successful multi-year safety net fundraising campaign in the nation**. We have you to thank. Without your support, we could never have reached such a significant milestone for our hospital, our patients and our community. We're enormously grateful.

Even as this chapter ends, we're not slowing down in our commitment to do even more to meet our patients' needs. We're hitting the ground running on our *Vision 2030* to make Boston the healthiest urban population in the world. It's a big goal, but it's a challenge we're ready to tackle. For years, BMC has been creating solutions to address the root causes of poor health. We've launched programs to break the cycle of violence, forged partnerships with mobile markets to offer healthy, affordable produce and invested in better, more secure housing.

Approaches like these are the bedrock of our *Vision 2030*, a national model of a holistic outlook to good health. BMC will always be Boston's hospital—always here for anyone who needs us. And for as long as there is need, we'll tackle the biggest hurdles like food and housing insecurity. But our ultimate goal is to alleviate those hurdles altogether for the patients we serve.

My colleague and founder of the Grow Clinic, Dr. Deborah Frank, always says, "The goal of the Grow Clinic is to no longer be needed." That's what *Vision 2030* is all about.

It's an exciting time to be involved with BMC. The journey we're embarking on will set the standard for what it truly means to provide wraparound health care and *sustain* good health.

As always, we are incredibly grateful for your ongoing commitment to BMC. Thank you for being such a great friend.

Sincerely,

Kate Walsh

Kate Walsh
President and CEO

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"…we have so much evidence that breastfeeding has health benefits, we just need to take action to increase breastfeeding in places where it was needed most."

Anne Merewood, PhD, MPH

BMC Helps to Spread Baby-Friendly Practices

Boston Medical Center is supporting infant health and nutrition in some of the most underserved areas of the United States. Founded five years ago, Communities and Hospitals Advancing Maternity Practices (CHAMPS) is helping hospitals in the Southern United States achieve the WHO/UNICEF Baby-Friendly™ designation through practices such as skin-to-skin contact, rooming-in and breastfeeding support after birth.

Boston Medical Center is a long-time leader in Baby-Friendly practices. The hospital was the first in the state to receive a WHO/UNICEF Baby-Friendly™ Hospital designation in 1999. CHAMPS Director Anne Merewood, PhD, MPH, was there during the early days of the hospital's work to promote breastfeeding and remembers feeling the desire to do more.

"After BMC became Baby-Friendly, I was doing a lot of breastfeeding research but I hit a certain point where I thought, we don't need to be doing research, we have so much evidence that breastfeeding has health benefits, we just need to take action to increase breastfeeding in places where it was needed most," recalls Merewood.

The opportunity to expand BMC's support to other hospitals arrived in 2014, thanks to a $2.125 million grant from the W.K. Kellogg Foundation. CHAMPS targeted areas in Mississippi and New Orleans, Louisiana, where breastfeeding rates are among the lowest in the country. Over the next five years, CHAMPS recruited 38 hospitals to work toward Baby-Friendly policies including having babies room-in with their mothers, increased skin-to-skin contact and building community supports to help mothers continue their breastfeeding journey outside the hospital.

The hard work has made a significant difference. Between 2014 and 2017, breastfeeding initiation at CHAMPS hospitals rose from 66 percent to 75 percent, and, among African Americans, from 43 percent to 63 percent. In 2014, Mississippi had no Baby-Friendly designated hospitals, and now in 2019 has 11, with 95 percent of all Mississippi birthing hospitals on the official Baby-Friendly pathway. CHAMPS received new funds in 2017 from the W.K. Kellogg Foundation and the Bower Foundation in Mississippi to continue the work, and funds in 2019 from the Bower Foundation to ensure sustainability of the project in Mississippi.

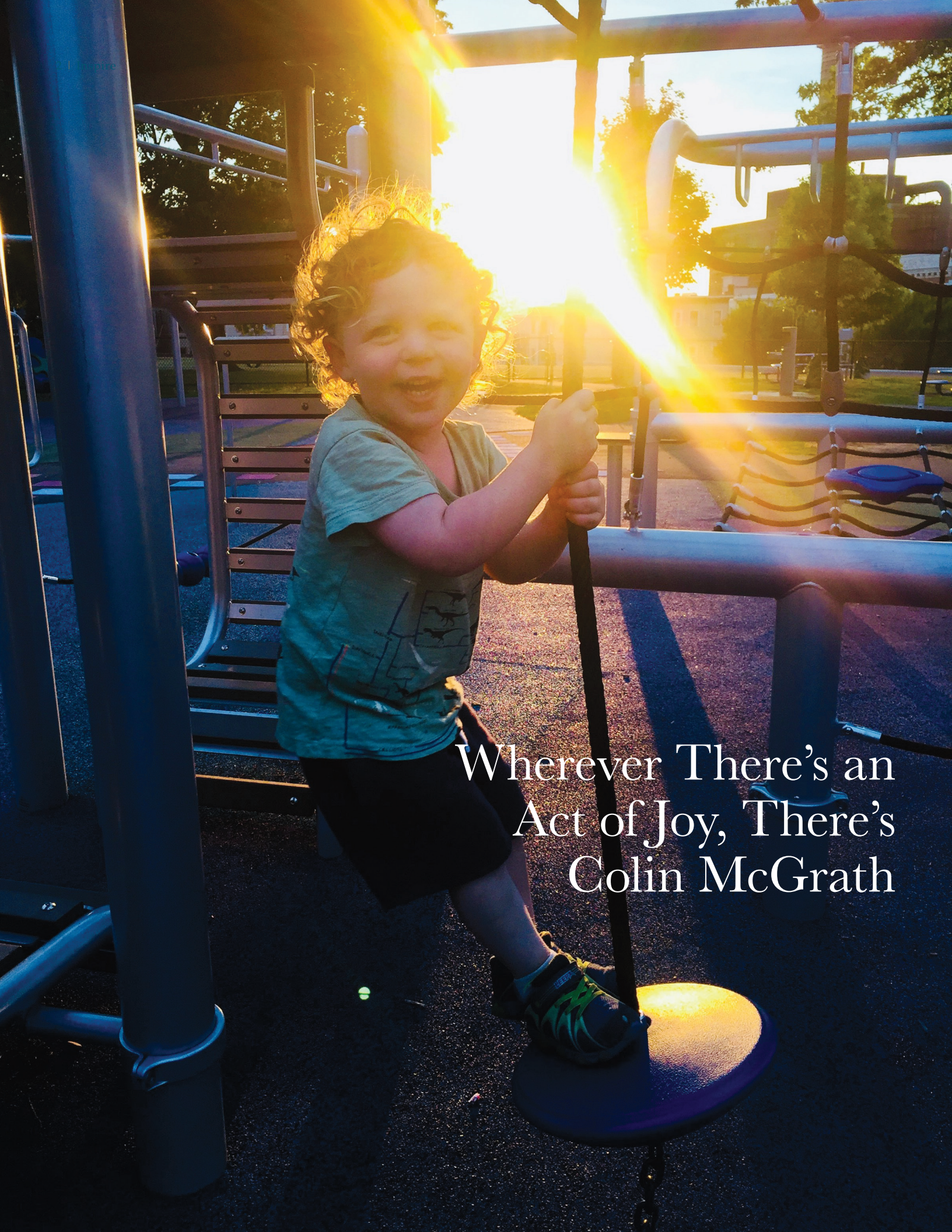
"We have a lot of support from the community, from hospital systems, and from Blue Cross and Blue Shield of Mississippi. They are seeing the health benefits for these infants as they grow. These are evidence-based practices that everyone can get behind," remarks Merewood.

The CHAMPS team has also successfully promoted baby-friendly initiatives in Texas, Tennessee, New Jersey and within Indian Health Service as well as tribal and Alaska Native birthing facilities in Alaska, Arizona, Montana, New Mexico and Oklahoma.

CHAMPS is part of the Center for Health Equity, Education and Research (CHEER) at Boston Medical Center. As a leading maternity care research, teaching and advocacy center in the United States, CHEER partners with U.S. and international health organizations and medical centers to improve care to underserved populations and promote health equity for all.

Currently, CHEER is expanding its breastfeeding work internationally, and is focusing on refugee breastfeeding support which is desperately needed. This is an area in which CHEER is currently seeking funds.

"Poor sanitation and unsafe water supplies in refugee communities can be a source of massive infection for bottle-fed babies. In these communities, breastfeeding is a matter of life and death," concludes Merewood.



Wherever There's an Act of Joy, There's Colin McGrath

The mission of Colin's Joy Project operates in the same way the two-year-old left an enduring impression of happiness on anyone who crossed his path—from complete strangers charmed by his contagious laughter to those lucky enough to know him and experience his love of having fun and being silly. For his parents Kerri and Brendan McGrath and big sister Sloane, it's one of the many ways they continue to feel connected to the sweet boy they love so much.

In addition to brightening the lives of those in Boston and beyond with things like outdoor playspaces and helping families in need, the project also unites the community with events honoring Colin's life and legacy. At Colin's Joy Project 5k Run/Walk in South Boston, a group of Boston Medical Center nurses walked among the masses. They did not need to make their presence known—they just wanted to be there for Kerri, Brendan and Sloane. And, for Colin.

The love and support expressed so delicately that day in South Boston paralleled the way Boston Medical Center's providers cared for Sloane and Colin a year earlier. Kerri was the first to arrive to BMC's Emergency Department (ED) where she learned the heartbreaking news about her children: Colin had been fatally injured and Sloane suffered serious injuries from a tragic accident. Since Brendan was on a business trip and the rest of the family were outside of Boston, it would be awhile before anyone would arrive to be with Kerri. The nurses and social workers rallied around her so she wouldn't feel alone.

"In that moment, Kerri needed family. And we became that for her," recalls Karin Rallo, RN, ED nurse manager. "We gave her little sips of water and did whatever we could to keep her afloat during what was absolutely the worst day any parent could go through."

"When I called my dad to tell him what had happened, he said, 'Stay with [Colin] as long as you can,'" Kerri remembers. "I didn't know what that could mean."

In response, a private room was set aside in the Emergency Department. "We brought in a hospital bed and kept the room nice and warm," Rallo explains. "Everybody pulled together so every detail would be lifted from them. We wanted to make sure the family had as much time with Colin as they needed."

In the midst of Kerri being with Colin, Sloane needed emergency surgery. To minimize time spent away from her son, the surgeon visited Colin's room so Kerri could sign the consent form. While a seemingly small gesture, it and others like it added up.

"I know it's easy in the course of a shift to feel like you're just doing a job," she says from her own personal experience as a doctor at Massachusetts General Hospital. "But a regular day to that person is the worst day to somebody else. The thoughtfulness we experienced time and time again was just another level of thinking beyond themselves."

As Rallo mentions, this level of compassion seems to be second nature for the ED staff. "There's a lot of thought, collaboration and working from the heart," says Rallo. "We really stop and pause at every detail to deliver the most sensitive care at every moment." And when Kerri had to step away to be with Sloane, her wishes of making sure someone stayed with Colin were fulfilled. "Somebody was always with him," Kerri says. "I just didn't want him to be alone."

That evening, Brendan and their families arrived. Together, they spent cherished moments with Colin, with support from the ED staff. "I think of how chaotic an [Emergency Department] is and that they must have had other patients. But they acted like they didn't have anywhere else to be or anyone else to take care of. They stayed well past their shifts to be with our family until Colin was settled," Kerri explains. "Long after Colin stopped being their patient, they still allowed him to be their patient."

Knowing Sloane would be staying in the hospital for a period of time, Rallo collaborated with Karan Barry, RN, nurse manager of the pediatric intensive care unit (PICU) to discuss how they could help the family balance the grieving process with the healing process. They decided keeping Colin and Sloane in two distinct parts of the hospital would be best. "We wanted to provide two special places for the family to be with their children that would give them space to say goodbye to Colin and remain involved in Sloane's care," explains Barry. "It was important to make the space with Colin special, but also apart from where they would be with Sloane."

As Sloane began her recovery in the PICU, the care was seamlessly transitioned to the team of nurses, child life specialists and social workers in the unit. Together, they cared for both Sloane *and* her parents. "While the primary focus was now on Sloane, the grieving process was actively happening and we wanted to meet Kerri and Brendan where they were," explains Molly Duggan, MS, CCLS, manager of the Child Life Program for BMC's inpatient and PICU units.

> "Everybody pulled together so every detail would be lifted from them. We wanted to make sure the family had as much time with Colin as they needed."
>
> Karin Rallo, RN

Through every interaction with the family, the PICU team was keenly aware of their needs. "They knew when to be medical, when to look after us and when to give us space," Brendan says. "The balance and situational awareness is something I'll always think about."

There were other personalized touches all around them. For one, a conference room was reserved to accommodate Brendan and Kerri's large circle of family and friends. When Sloane started rehabilitation, Duggan secured an empty playroom so she could take a break from

"They knew when to be medical, when to look after us and when to give us space. The balance and situational awareness is something I'll always think about."

Brendan McGrath

her hospital room. "It empowered her to focus on being a kid while also meeting her rehab goals," she says. "It also allowed her to have some playtime with her parents. She started coming back to herself."

Outside the medical scope of Sloane's care, the McGraths leaned on Child Life and social work to prepare for the difficult conversation they needed to have with their daughter about Colin. "As soon as Sloane woke up, she asked, 'Where's Colin?'" Kerri says. "She's so smart that we knew we had to say the right thing. We walked through what to say, how to say it and knowing when the right time was so we felt as ready as we could ever imagine feeling."

They were also equipped with tools and resources to continue the conversation well after they left hospital so Sloane could ask questions or talk about her brother at any time. "[Molly] gave us a good sense of what the first couple of days might look like and helped us develop a game plan for what to say and how to say it," Brendan says.

The thought of going home was certainly bittersweet for the family. On one hand, it meant Sloane was on her way to making a full recovery. On the other, it meant adjusting to life without Colin. To ease the transition, the team spent time preparing Kerri and Brendan. "We were devastated and broken. Before the accident, we were always playing and laughing," Kerri recalls. "We had to figure out how to build that environment for Sloane again."

The Child Life team helped the family become reacquainted with life at home by gifting board games, special pajamas to accommodate Sloane's injuries, tips for sitting at the table and so much more. "I think about the firsts that came after and how hard they were," Kerri explains. "On her first day back to school, Sloane wore a backpack from Child Life, and just knowing she was taking part of her journey with her—it's the little things that were really helpful."

Back home, Kerri and Brendan wanted to find a way to celebrate Colin's life and treasure his legacy. "When we think about the memories that are getting us through, it struck me that they were in spaces where we could be silly and have fun together, like a playground or a music class," Kerri says. "We want to create that for other families, especially those who might not be able to afford the programs or resources to do so."

And so began Colin's Joy Project. The emblem for Colin's Joy Project is Colin's handprint, which was created as part of a memory box with his nurses in the ED. Colin's Joy Project sets out to, "live each day with pure joy in your heart." As Brendan explains, doing so can come in several forms, one of which is to thank those who helped them in the wake of the accident—like Child Life. In the summer of 2019, on the anniversary of the accident, Colin's Joy Project highlighted a day of giving for the program, where donors could purchase items from an Amazon Wish List. The influx of packages was astounding. "We know how these items make a difference for families who are at their lowest point," Brendan concludes. "It seemed only natural to do this."

Every day, happiness and joy will be felt in the hearts of children and families at BMC who interact with and take home one of the many items made possible through that day of giving. It won't only make their journeys a little easier, but will bring smiles and delight—just as Colin did.

Innovation in Pharmacy: Outside the Box Ideas Go Inside the Bottle

As accountable care shifts the health care paradigm from treating the sick to keeping patients healthy, health experts are searching for touchpoints outside of the doctor's office to help people stay well. For patients with complex or chronic conditions, where pharmaceutical regimens play a crucial role, Boston Medical Center's innovative specialty pharmacy has emerged as an essential resource to improve clinical outcomes.

Specialty pharmacies are a rapidly growing industry focused on dispensing high-cost, complex medications that treat conditions like HIV, cancer and autoimmune diseases. These types of pharmacies are accredited and have specially-trained personnel that carefully manage dosages, navigate insurance barriers and provide "high-touch" counseling to clients to ensure the medications are taken correctly. However, problems can arise when a patient also receives other prescriptions at a neighborhood pharmacy. Having two separate pharmacies provide an incomplete picture of the patient's medications, heightening the possibility of a drug interaction.

When David Twitchell, PharmD, MBA, came to BMC in 2011 as chief pharmacy officer, he, with the help of his new team, recognized the potential for the medical center to create a specialty pharmacy that could better serve patients requiring these life-changing medications while also building a crucial revenue stream for the hospital. In 2014, the idea was realized in BMC's Cornerstone Health Solutions, a genuinely innovative pharmacy system that goes far beyond dispensing medicine.

The Cornerstone approach provides a full spectrum of medications, including specialty pharmaceuticals, and is the preferred pharmacy for the BMC Health System which serves more than 400,000 patients. Pills and compounds can be picked up at several BMC campus locations or mailed to patients' doorsteps. Cornerstone employs 60 pharmacists, many of whom are embedded within treatment clinics in the hospital.

"Pharmacists onsite in clinics like infectious disease, oncology and primary care, are part of the clinical team. They review medications during patient visits and can discuss treatment plans with physicians. These pharmacists specialize in particular disease states, building expertise in pharmaceutical options. The result is more comprehensive care for our patients," explains Twitchell, who now serves as president for Cornerstone Health Solutions.

Patient liaisons also work in the pharmacy to provide regular counseling and follow up with people who are managing complex maintenance medication schedules.

"Our liaisons assist patients with refills, navigate insurance issues

[and] arrange transportation for treatments, with the overall goal being to help patients adhere to their medical plan as closely as possible. This is resulting in fewer costly [emergency room] visits and hospital admissions, helping our patients live their best lives," adds Twitchell.

The specialty pharmacy's approach is having a transformative impact on health outcomes. Well above 80 percent of BMC's HIV patients have an undetectable viral load thanks to close adherence to their medication regimens compared to 49 percent nationally. Seventy-four percent of BMC patients with chronic myeloid leukemia, a hard-to-cure form of cancer, are successfully suppressing their disease at the two-year mark under the care of Cornerstone in comparison to 50 percent of patients in trials or in the community.

Medications are by far the most expensive cost of care. Having the specialty pharmacy under the wing of the BMC Health System also captures pharmaceutical revenue for the hospital that is invested back into patient services. The Federal 340B drug pricing program allows safety net hospitals, such as Boston Medical Center, to purchase covered pharmaceuticals at discount, sometimes at half the cost of retail. When these drugs are dispensed to patients, the hospital receives reimbursement at full retail value.

"This arrangement sustains our ability to provide such tailored specialty services to our patients, which are creating such an outstanding impact," says Twitchell.

More and more specialty drugs are entering the market every year. As the pace of this trend increases, Cornerstone Health Solutions is partnering with other health systems to help build and accelerate specialty pharmacies to serve their patients. The company is eager to share its innovative model that benefits patients, supports outstanding clinical outcomes and creates a cycle of revenue that can further hospitals' missions.

Getting Back in the Game: Noelle's Story of Strength and Resilience

In 2016, Noelle Lambert was a typical 19-year-old college student, a Division I athlete at UMass Lowell and enjoying the summer before her sophomore year. That was until a terrible accident changed her life forever.

While riding a moped on Martha's Vineyard, she was involved in a major crash and was immediately rushed to a nearby hospital. Shortly after arriving, she learned her injuries were so severe that she needed to be med-flighted to Boston.

Noelle still remembers the moments after the accident vividly. "Everything happened so fast and so slow at the same time. I just remember looking down and seeing my leg was gone and just thinking about what this meant for sports and lacrosse since it was such a huge part of my life. Like, 'Was I ever going to be able to run again?'"

The transfer team did their best to assure her everything would be okay. However, after asking multiple times if they would be able to reattach her leg with no clear answer, she began to worry. The only thing keeping her remotely calm was knowing she would see her parents soon and realizing she was being transferred to Boston Medical Center. "A couple of my friends are nurses and always talked highly about BMC, so I knew I was definitely going to be okay. I was definitely grateful to go there."

Noelle eventually arrived to BMC where she was reunited with her parents. Even though she needed surgery right away, the medical team made sure she could have a quick visit with her parents so they could see she was stable.

Due to the extent of Noelle's injury, she needed several surgeries. The first was an above-the-knee amputation of her left leg—a devastating situation for anyone to go through, never mind a competitive, lauded athlete. A couple days later, Noelle had a second surgery with Alik Farber, MD, chief of the Division of Vascular and Endovascular Surgery, in order to close the wound from the initial amputation and allow for a better fit for a prosthetic. He recalls meeting Noelle and her family and feeling the pain they were radiating. Farber, who doesn't typically see this type of surgery in younger people, admits that it was, "A very difficult conversation to have with her. It was difficult for me, too."

As Noelle coped with the accident and losing her leg, Farber recalls how she took it all with such great stride. "I remember thinking to myself, 'What a strong young woman. What a psychological strength one must have to suffer this kind of injury and go through the hospitalization and two operations.' The strength she demonstrated through this process was inspiring."

Noelle attributes that strength to her family, friends and BMC. Her family and friends were constantly there—a revolving door of support that never left her side. "I always had people there to talk to me. To talk me through it. I never had time to feel sorry for myself," she explains. She credits

"I remember thinking to myself, 'What a strong young woman. What a psychological strength one must have to suffer this kind of injury and go through the hospitalization and two operations.' The strength she demonstrated through this process was inspiring." Alik Farber, MD

her entire care team for accommodating so many visitors but she specifically points out the wonderful nurses. Noelle remembers how they were always nice and uplifting, keeping her spirits high. Sometimes, that even meant turning a blind eye when her friends came piling into her room well past visiting hours.

"We have outstanding specialists, surgeons and physicians and we have even more outstanding nurses who really give their job 120 percent," says Farber. The care and compassion from everyone kept her strength and optimism going throughout her recovery in the hospital.

The next step in Noelle's journey was centered on rehabilitation and preparing for a prosthetic limb. BMC staff and navigators referred her to Spaulding Rehabilitation Facility, where she spent a week as an inpatient. From there, she was ready to return to her home in Manchester, New Hampshire, where she focused on regaining her strength. After about a month, she received and learned how to walk on her prosthetic limb.

Noelle wasted no time getting back into the swing of her life. She quickly learned to navigate her "new normal" and was eager to participate in all pastimes she loved before the accident, especially athletics. Two weeks after arriving home, she returned to school and most importantly, to lacrosse, driving back and forth every day after physical therapy so she could be on the sidelines to cheer on her team.

In April 2017, Noelle received her first running blade through the Challenge Athletics Foundation. That summer, she dedicated herself to getting back into shape with her personal trainer. They started with the basics, like running, and concentrated on preparing her for lacrosse season in the fall.

Her first practice with her teammates was nothing short of scary. "They just threw me in a scrimmage and at that point I hadn't even picked up a lacrosse stick and ran at the same time with my running blade," she remembers. But it was exactly what she needed—to be pushed into the right mindset and excel again at the sport she loved.

With hard work comes great reward. Noelle's coach recognized her efforts, and had her start the next game. During that game, she scored her first goal since the injury, creating a moment she will never forget. "It's not me scoring that's so awesome," she says. "It was the reaction that I got from my teammates and my coaches and everybody else because I truly wouldn't be there if it wasn't for them. They cleared the bench and everything, it really was a special moment that I will not forget."

By senior year of college, the accident was a distant memory in Noelle's mind. She practiced and trained every day, and played in nearly every single game—a feeling she describes as "incredible," considering how far she had come.

Athletics was a major driving force in Noelle's recovery, but she couldn't do any of it without her running blade or her waterproof prosthetic—a prosthetic donated to her through the Heather Abbott Foundation, which was established by Heather Abbott, a 2013 Boston Marathon bombing survivor. Boston Medical Center played a pivotal role the day of the Boston Marathon bombing, treating many of the most critically injured victims.

Inspired by both the Challenge Athletics Foundation and the Heather Abbott Foundation, Noelle wanted to help others the way she was supported. As prosthetics are not covered by insurance and can cost between $5,000 and $25,000, she knew others would need to rely on donations just as she did. With that, she started the Born to Run Foundation, a non-profit dedicated to donating prosthetics to younger adults and children who cannot afford them.

In 2018, Noelle held the foundation's first fundraiser—a golf tournament. The overwhelming and unexpected success of the event allowed them to make their first donation, a prosthetic for a three-year-old boy. "He was just the cutest thing you'll ever see," Noelle recalls after watching him running down the hallway as soon as he put it on.

To date, the foundation has donated five prosthetics. Noelle's mission is to continue to grow the organization so she can help anyone and everyone who needs it—a personal passion she plans to turn into her life's work.

Noelle recently graduated college, earning her bachelor's degree from UMass Lowell. And although her career in college athletics has come to an end, she recently qualified for the United States National Paralympic Team, a feat that is a testament to her unwavering determination. As part of the U.S. team, Noelle competed in the World Championships in Dubai where she set a new American record in the 100-meter race and placed fourth overall against some of the best in the world. Noelle's ultimate goal is to qualify for the 2020 Paralympics in Tokyo, for which she trains every single day, commuting from her home in New Hampshire to Boston in order to make sure she's in the best shape.

Her excitement about her future is tangible, and her resilience is admirable. To take an accident and change the narrative from tragedy to opportunity is a page out of Boston Medical Center's handbook—it's no wonder BMC's care team and Noelle were such a perfect match.

"None of this would have happened if I didn't lose my leg," concludes Noelle. "I just always say that I'm so grateful it happened to me. It really did change my life for the better."

Q&A

On the Frontlines of LGBTQ Health Advocacy with Dr. Carl G. Streed

Carl G. Streed, Jr., MD, MPH, is a practicing internal medicine physician as well as research lead at Boston Medical Center's Center for Transgender Medicine and Surgery. As a young physician and advocate, he has already made impactful contributions through his roles as former chair of the Massachusetts Medical Society Advisory Committee on LGBTQ Matters and the former chair of the American Medical Association (AMA) Advisory Committee on LGBTQ Issues. He was selected as one of 2019's Ten Outstanding Young Leaders by the Greater Boston Chamber of Commerce for his inspiring work.

Inspire recently sat down with Streed to discuss his health advocacy work for the LGBTQ community, his hopes to outlaw conversion therapy across the nation and his current research interests.

***Inspire*:** You recently co-authored a perspective in the *New England Journal of Medicine* calling for more to be done to outlaw conversion therapy, the practice of trying to change a person's sexual orientation through psychological or spiritual interventions. Can you explain the current national landscape regarding this issue?

Streed: Yes. Despite the mounting medical evidence debunking this practice, currently, only 18 states, Washington D.C., and Puerto Rico, have banned conversion therapy for minors. There is a lot of pressure building on states to ban the practice due to its extremely harmful psychological repercussions on victims. My own work in an advisory role at the AMA helped the association form a policy statement against conversion therapy that will be used as expert evidence in future court cases deciding this issue. Also, the Trevor Project's 50 Bills 50 States initiative, is working with lawmakers at the state and local level to protect LGBTQ youth from this practice. It is important to note that this is only advocacy around conversion therapy for people under the age of 18. After people turn 18, the practice is currently legal, and these young adults can still be pressured into undergoing therapy.

***Inspire*:** Is there any hope to be able to ban this practice across the board?

Streed: There are laws in the United States against the practice of medical quackery. I think as researchers continue to debunk the method as not only unscientific but potentially harmful, there will be legal avenues to ban conversion therapy altogether.

***Inspire*:** What are some advocacy efforts you are working on to promote LGBTQ health care?

Boston Medical Center participated in the #WontBeErased campaign on social media to support and advocate for the transgender and gender expansive community. Participation and rallies took place across the country, including Boston, New York and Washington.

Streed: I am really interested in developing and promoting policy efforts that support LGBTQ health. In my roles at the AMA and Massachusetts Medical Society, I established a host of policy briefs and talking points that will be used as resources for future legislation. Beyond policy, there is a scarcity of young medical professionals that are specializing in LGBTQ health. At BMC, there is currently a year waitlist for people waiting to undergo gender-affirming surgeries. There are just not enough trained surgeons to meet the demand. So I am visiting medical campuses and professional meetings with other colleagues at BMC and Boston University School of Medicine to create awareness about this disparity and speak to young physicians about opportunities in the field.

Boston Medical Center once again earned the designation as a LGBTQ Healthcare Equality Leader™ by the Human Rights Campaign Foundation in their annual Healthcare Equality Index (HEI).

***Inspire*:** As a practicing internal medicine physician at BMC's Center for Transgender Medicine and Surgery, how do you approach your practice? What are some leading-edge efforts currently taking place at the Center?

Streed: I approach my practice with extreme sensitivity and an open ear. With my patients, I am always listening to see if they may require additional support or services as they navigate their health journey. At BMC, we provide really comprehensive clinical care for the trans community. Beyond providing gender-affirming surgeries, we offer a host of support services from specialized primary care to mental health support. As a large academic medical center, our patients have access to cutting-edge technology and services to meet all their health care needs, and we provide a safe, centralized approach to help guide them through all their health decisions.

***Inspire*:** What are your current research interests?

Streed: I am currently developing longitudinal studies tracking patient outcomes of transgender surgeries. In particular, we are looking to see how surgery affects patients' feelings of body dysmorphia and if surgery improves patients' mental health. It is my hope that the outcomes add to a growing body of evidence that these surgeries are a crucial part of health care for trans patients and can impact trans health care policy in both the private and public sectors.

The Time is NOW

What does it take for children to thrive? Especially children who live in low-income areas where daily challenges are rampant: high-crime neighborhoods, underfunded schools and parents who are constantly trying to make ends meet. Do we recognize the strengths and successful solutions communities are implementing to overcome these obstacles and can these interventions be further expanded? These are the essential questions explored by the new Networks of Opportunity for Child Well-being (NOW) Program. Led by Boston Medical Center pediatrician Renée Boynton-Jarett, MD, ScD, NOW brings together specialized coalitions across the nation that share the goal of improving childhood outcomes through community action.

Funded by the Robert Wood Johnson Foundation (RWFJ), NOW is both a face-to-face and online platform focused on building the capacity of grassroots organizations to promote the health and well-being of underserved children in their communities. The work is aimed at community-driven strategies to promote child well-being and prevent and mitigate adverse childhood experiences such as abuse, neglect and exposure to violence. According to the Centers for Disease Control and Prevention, children from low-income neighborhoods are five times more likely to endure adverse childhood experiences.

"What we know is that these types of adverse experiences cast a long shadow. These children are more likely to have developmental delays, poor academic performance, risky social behaviors and suffer from chronic health conditions," explains Boynton-Jarrett.

As Boynton-Jarrett sees it, adverse childhood experiences are not born from individual circumstances but are vastly entrenched in complex societal issues. Reframing food insecurity, lack of affordable housing and neighborhood violence as social determinants of health can open conversations with community leaders and organizations about their roles in creating change for at-risk children.

The NOW project brings together a range of organizations from urban, suburban and rural areas. The contrasts in their missions and the populations they serve are vast. For example, New Mexico-based Community Outreach and Patient Empowerment works to improve access to nutrition in the Navajo Nation while New Jersey-based Essex County Council for Young Children focuses on preschool enrollment for new immigrants. During symposia, these organizations among others share lessons learned and best practices while mentors help to scale up their capacity to create more change in their communities. NOW also has a robust online component that houses resources, online webinars and podcasts to further support coalitions in their missions.

"We are hoping to show grassroots organizations that they don't have to wait for policy change, that they are capable of doing the work themselves. It is about empowerment," explains Ronda Alexander, director of operations for NOW.

The NOW project is a part of the RWJF-funded HOPE (Harnessing Opportunity for Positive, Equitable Early Childhood Development) Consortium that includes Nemours Children's Health System and the BUILD Initiative.

Carbon Neutral by 2020: BMC's Ambitious Energy Plan

Environmental changes loom large over Boston. Every year, sea-level rise, violent storms and flooding imperil infrastructure and threaten the safety of thousands of people living at the very edge of the Atlantic. As city officials put plans in place to protect its population, Boston Medical Center is aligning its vision to drastically reduce its carbon footprint and preserve and improve the health of the community that surrounds it.

Hospitals are massively energy-intensive facilities. Powering inpatient floors, surgical rooms, heating and cooling units, and the plethora of machinery and support services that assist staff, patients and visitors around the clock is costly both financially and in environmental impact. Large hospitals and academic medical centers have a much more substantial carbon footprint than other commercial buildings, which are considered the fourth largest contributor to greenhouse gas emissions in the United States.*

When a BMC campus redesign project was proposed in 2012, improving the hospital's energy efficiency and reducing greenhouse gas emissions was imperative to the plan.

"We're in the business of caring for our community, and so it makes sense to start with our environment and work on reducing our carbon footprint to significantly change the amount of carbon that we're emitting and the amount of pollution as a result of the use of that energy," explains BMC Senior Vice President of Facilities and Support Services Bob Biggio.

BMC's energy conservation efforts are drastically reducing the hospital's energy consumption. The hospital's multi-prong approach focuses on shrinking square footage through campus consolidation, investing in clean energy alternatives and pioneering green campus projects.

LEADING ENERGY INNOVATION

The tractor trailer-sized box on top of the Yawkey Building doesn't look like much, but it houses the hospital's most ambitious step toward energy efficiency. BMC's new co-generation (co-gen) power plant is providing 43 percent of the hospital's electrical needs and 30 percent of its heat since its installation in 2017. It is also contributing to the hospital's bottom line, saving BMC $1.5 million in energy utilities each year.

The natural gas-powered reciprocating engine not only supplements the hospital's energy supply but also uses its waste heat to

*Center for Climate and Energy Solutions: DeCarbonizing U.S. Buildings

"We're in the business of caring for our community, and so it makes sense to start with our environment and work on reducing our carbon footprint to significantly change the amount of carbon that we're emitting and the amount of pollution as a result of the use of that energy." Bob Biggio

CO-GEN PROVIDING **43%** OF THE HOSPITAL'S ELECTRICAL NEEDS

CO-GEN PROVIDING **30%** OF THE HOSPITAL'S HEAT SINCE 2017

CO-GEN SAVING **$1.5** MILLION IN ENERGY UTILITIES EACH YEAR

OVERALL REDUCTION OF **93%** IN GREENHOUSE GAS OUTPUT

provide heat to the hospital and its hot water supply. Where a conventional power plant operates at about 35 percent efficiency, a co-gen powerplant, with its ability to utilize waste heat, operates at 70 percent efficiency.

The rooftop power plant can operate off the grid, powering the hospital's inpatient unit for months if necessary. With superstorms and flooding being a more present threat to urban environments, this capability allows the hospital to sustain its operations in the face of a natural disaster.

Beyond energy conservation efforts on campus, BMC is at the forefront of virtual power purchase agreements, a method of investing in clean energy projects in other parts of the nation to help offset the hospital's carbon emissions in the Northeast.

BMC partnered with the Massachusetts Institute of Technology and the Post Office Square Redevelopment Cooperation to invest in a 650-acre solar farm in North Carolina. The project takes the form of a 25-year power purchase agreement between the three Boston-area institutions and Virginia-based energy company Dominion. The 146 gigawatt-hours of emissions-free power generated by the solar farm each year will result in a reduction of 119,500 metric tons of carbon dioxide emissions—the equivalent of removing 25,250 cars from the road.

In all, the hospital's energy conservation efforts have reduced its greenhouse gas output by 93 percent while more than halving its annual utility expenditure from $17.2 million in 2011 to an estimated $8.5 million in 2019. Administrators expect that the hospital will meet its goal to be completely carbon neutral by 2020.

GREENING THE COMMUNITY

Perched above the corner of Mass. Ave. and Albany Street, BMC's Rooftop Farm shines like an emerald among the drab cement rooftops of other South End buildings. The 2,658 square foot space on top of BMC's power plant grows more than 5,000 pounds of vegetables and leafy greens each year. This produce is funneled directly into the community through cafeteria and inpatient meals and weekly distributions to families using the hospital's Food Pantry. A weekly farmer's market held in the Shapiro Building provides additional opportunities to the local community to bring home these vegetables. Beyond its nutritional benefits, the expanse of green helps to mitigate the heat island effect in BMC's South End neighborhood.

"Typically, in urban populations, the temperature can be 22 degrees warmer in the environment, so the garden actually reduces the greenhouse gas emissions that are released. It also prolongs the life expectancy of the roof two to three times and can save 5 to 40 percent of energy just by having a green roof," explains BMC Senior Director of Support Services David Maffeo.

The farm is perhaps the most visible example of the hospital's green investment in the community. Still, there is a lot more going on behind the scenes. Over the past few years, the hospital has put into place radical systems to lighten its impact on landfills from closely tracking, reducing and composting the food waste in its kitchens to recycling old building debris during construction projects.

"BMC is emerging as a leader in conservation efforts in the health care sector, and we are eager to share our resources with other institutions so that they can implement similar strategies moving forward," says Biggio.

SEEING FUTURE OPPORTUNITIES

BMC's efforts over the past eight years have earned it the title of the greenest hospital in Boston. Even with so much accomplished, administrators continue to look for more ways to create sustainability on campus. The hospital most recently executed a new smart solar power purchase agreement in Massachusetts and is looking into opportunities to install solar panels on campus and electrify its vehicle fleet. BMC's ultimate goal is to erase its environmental footprint while being the best possible steward to the community that it serves.

BRANCH: Supporting Families to Help Young Children Thrive

Ask any parent with a young child, and they'll tell you how challenging it can be. Tears, tantrums and exhaustion are all in a day's work—and that's on a good day. Stress levels climb even higher if a child shows signs of developmental delays, emotional problems or acting out.

Now, add to the mix a parent with serious depression or anxiety, a loss in the family or any of the many sources of trauma associated with poverty: homelessness, food insecurity and exposure to violence. Any one of these challenges—and they rarely come in ones—can both magnify and overshadow the everyday stress of raising a kid.

"If a caregiver is having a hard time personally, it becomes harder to parent," says Cleisa Gomes, a family partner at Codman Square Health Center, in Dorchester, Massachusetts. "It's harder to communicate with the child. It's harder to be attuned to their needs. It's not anyone's fault. It's just a reality."

Untangling the knot of stressors that can interfere with child development and parental attachment is the core purpose of BRANCH, a new approach to supporting families and addressing behavioral health in early childhood that is now being established in primary care settings at Codman Square—an affiliate of Boston Medical Center—and several other community health centers in Massachusetts.

BRANCH, which stands for Building Resilience and Nurturing Children, is a brief and targeted intervention that includes both the child and parent (or another primary caregiver) and involves assessing a child's development, listening to the parent and family's needs and devising a game plan for connecting the family to specialty care or other supports as needed.

BRANCH is just one in a continuum of services that make up TEAM UP for Children, a model of integrated behavioral health in pediatric primary care that was launched in 2016 and is currently supported by the Richard and Susan Smith Family Foundation and The Klarman Family Foundation. Based at community health centers, TEAM UP comprises interdisciplinary teams of providers working within a shared framework combining a focus on early childhood, a broad view of behavioral health that transcends specific diagnoses and an emphasis on family and community engagement.

"There's a growing recognition of the importance of early childhood in the overall development of healthy children and young adults," says Emily Feinberg, ScD, CPNP, a pediatric nurse practitioner and the director of TEAM UP. "BRANCH is a recognition that primary care is a really important space to begin to think about the social-emotional needs of very young children and the positive role that primary care clinicians can play in child development."

A FLEXIBLE TAKE

The overarching goal of BRANCH is to bolster the capacity of families to be resilient in the face of adversity. The intervention focuses on strengthening the child-caregiver relationship and also addresses the long-term impact of traumatic events and severe, prolonged stress—commonly known as toxic stress—on young children.

Although BRANCH is grounded in established therapeutic models, it's tailored to the pace and culture of primary care and community health centers. Few behavioral health evaluations or brief treatment resources for children younger than age six have been designed with the health center setting in mind. In a world of back-to-back appointments and competing priorities (for families and providers alike), flexibility is essential. So while BRANCH is drawn up as five to seven 30-minute sessions, the number and spacing of the sessions are intended to bend to the family's needs.

Likewise, the provider team reflects the needs of the patient population at community health centers. As with TEAM UP as a whole, BRANCH is built around an interdisciplinary three-person team that includes a pediatric primary care provider, an integrated behavioral health clinician and a family partner or community health worker, like Gomes. After a warm handoff from the primary care physician, the behavioral health clinician and family partner lead the parent and child through the sessions.

At a conceptual level, BRANCH is a strength-based intervention. Though trauma of some kind is sadly the norm among the families who participate in BRANCH, the provider team seeks to spotlight the positive aspects of the child-caregiver relationship and identify concrete supports and services that empower families further.

"BRANCH isn't just about trauma," says Betsy McAlister Groves, early childhood consultant to TEAM UP and the founder of the Child Witness to Violence Project at Boston Medical Center. "It's about relationships, child functioning, and children's and families' needs. It's a deeper way to look at the strengths and challenges that children and families have and then to develop a plan for next steps."

"BRANCH is a recognition that primary care is a really important space to begin to think about the social-emotional needs of very young children and the positive role that primary care clinicians can play in child development."

Emily Feinberg, ScD, CPNP

BRANCH IN PRACTICE

Providers typically initiate BRANCH if a caregiver voices stress or concern about child behavioral problems, such as excessive clinginess, a chronic inability to sit still or focus, aggression with other kids, frequent tantrums or conflicts at daycare or preschool.

"We offer BRANCH whenever a caregiver is talking about stress, and how stress is affecting their parenting," says Molly Brigham, LICSW, a licensed clinical social worker who partners with Gomes at Codman Square.

Although the timing and sequence of the sessions is flexible, BRANCH involves some core elements. Following the warm handoff and an initial conversation, the social worker and family partner schedule a 30-minute follow-up visit with the child and caregiver. This first visit is an opportunity to assess the child's development, observe the attachment between child and caregiver and gain a better understanding of the caregiver's stress and strengths.

In subsequent sessions—which sometimes include just the caregiver—the providers further explore the family's needs and sources of stress. "It's focused on the kid," says Gomes. "But the kid is our door into supporting the family."

Finally, the providers and caregiver formulate a game plan together. The next steps might include a referral to a behavioral health specialist, or to family therapy, in-home therapy or services offered by community partners. Just as often, the provider team connects families with Head Start programs or daycare vouchers through the Department of Transitional Assistance or Child Care Choices of Boston.

BUILDING CAPACITY IN PRIMARY CARE

Most behavioral health clinicians working in primary care have not received specialized training in child development or behavioral health in early childhood. The BRANCH trainings led by the TEAM UP staff—and the addition of the grant-funded family partner role—are designed to build capacity and confidence within primary care, enabling the staff at community health centers to spend more time assessing young children and caregivers and understanding their specific needs.

"TEAM UP is filling gaps for clinicians and providers and boosting the clinical capacity in-house," says Marcia Williams-Gupta, LICSW, a licensed clinical social worker who uses the BRANCH model at the Dimock Center. "Before BRANCH, we would refer children out for developmental pediatrics or in-home therapy, or maybe early intervention, depending on the age. Now we can hold them here, in a therapeutic way, and gather more information before deciding whether we need to make a referral."

TEAM UP is in the process of an initial evaluation of BRANCH, which is focused on the referral process for BRANCH and gathering clinician feedback on the utility of the intervention. In a later phase, TEAM UP will solicit caregiver feedback on the value of BRANCH.

The community health center providers are quick to point out that the positive outcomes they see are driven as much by the families themselves as they are by the BRANCH approach.

"They're amazing and resilient," Brigham says. "We're working with families because the caregiver is interested in support, and that is such a strength. We're only promoting what's already happening."

During the summer and fall,
Team BMC raised more than $275,000
through the following races:

Columbia Threadneedle
Investments Boston Triathlon

Falmouth Road Race

Rodman Ride for Kids

Shatterproof Rise Up Against Addiction

Mike's 5K to Crush Substance Abuse


RaceWire
BMC
39


BMC
RUN BMC


COLUMBIA THREADNEEDLE INVESTMENTS
BOSTON TRIATHLON
COLUMBIA THREADNEEDLE INVESTMENTS
3:39:58
1:36:57
BERMUDA

TO RESOLVE THE OPIOID EPIDEMIC, WE MUST REDUCE STIGMA.

The opioid epidemic is the most critical public health crisis of our time. One hundred and thirty people die from overdoses every day. More than 20 million Americans live with a substance use disorder. Many of them aren't supported and are instead blamed for their condition.

The stigma surrounding addiction is among the most dangerous factors in the opioid epidemic. For decades, society has viewed, and continues to view, addiction as a moral failing and a choice — rather than a complex disease with genetic, environmental, and neurobiological underpinnings.

The impact of these views can be seen everywhere. Stigma has profoundly shaped the attitudes of family members, healthcare providers, the criminal justice system, and policymakers, and it's a major reason 88% of people with a substance use disorder don't get the care they need.

The Grayken Center for Addiction at Boston Medical Center treats addiction like the disease it is, and has for more than 25 years. From scientific research to innovative treatment, we have been fighting addiction with the aggressive approach a deadly disease demands.

To address the opioid crisis, the Grayken Center has embedded treatment for opioid use disorder across our health system — in settings including primary care, pediatrics, psychiatry, the emergency department, and community health centers — to ensure that patients have access to life-saving medications and care wherever they are. We've trained providers across the nation to prescribe medications for opioid use disorder. We've built a free toolkit to help employers support team members with substance use disorders. And we're partnering with policymakers and public officials to develop compassionate, evidenced-based policies that fight stigma and help more people receive the treatment they need.

Everyone can make a difference in the opioid epidemic by working to reduce stigma and its consequences. Join the fight against addiction at bmc.org/addictiondisease.

> SOCIETY VIEWS ADDICTION AS A MORAL FAILING OR A CHOICE RATHER THAN A COMPLEX DISEASE.

STIGMA IS EVERYWHERE. IT'S TIME TO ACT.

Everybody can play a part in ending stigma and fighting the opioid epidemic. What's your role?

PATIENTS

Treatment works, and recovery is possible. Ask your primary care provider about medications for OUD like buprenorphine, and visit bmc.org/addiction for more info.

INSURERS

Help fight the opioid epidemic by supporting widespread access to medication for OUD and the overdose-reversing drug naloxone (also known as Narcan).

PROVIDERS

Sign up for the training to obtain a waiver to prescribe buprenorphine, and visit the Grayken Center's Office-Based Addiction Treatment (OBAT) program for more provider resources.

EMPLOYERS

Change the culture of fear and secrecy surrounding addiction in the workplace. Review the mental health and substance use benefits coverage your company offers.

PARENTS

Learn how to provide support and help your child access evidence-based treatment by calling the Partnership for Drug-Free Kids helpline 1-855-378-4373.

MEDIA

Avoid stigmatizing language ("addict") in favor of clinically appropriate, person-centered language ("person with a substance use disorder"), as recommended by the AP Stylebook.

POLICYMAKERS

Partner with medical providers to devise sensible, compassionate policies, like the new policy in Massachusetts allowing pharmacists to dispense Narcan outside of pharmacies.

CORRECTIONS

Expand the use of all three medications for OUD in prisons and jails. Partner with healthcare organizations like Boston Medical Center on treatment plans for people with substance use disorders.

Grayken Center for Addiction
Boston Medical Center

Join the fight against addiction at
bmc.org/addictiondisease

New Study Looks to Expand Treatment Options for Pregnant Women with Opioid Use Disorder

Boston Medical Center has long been a leader in addiction treatment, touching all aspects of care, including pregnancy. At BMC's Project RESPECT, a high-risk obstetrical and addiction recovery program, providers care for women with opioid use disorder (OUD) during and after their pregnancy. To manage OUD, the standard of care is medication-assisted treatment (methadone or buprenorphine), which is known to be safe and effective during pregnancy. Over the last few years, Project RESPECT providers have seen a handful of women who had been on naltrexone which was then discontinued due to pregnancy. Naltrexone is an opioid receptor blocker and while it is not the first-line treatment for OUD, it can be an effective tool in assisting recovery for some patients. However, guidelines for naltrexone therapy during pregnancy are unclear and most naltrexone providers do not feel comfortable prescribing it to pregnant women. Denied treatment, these women experienced dangerous and potentially unnecessary gaps in recovery care which resulted in destabilization and, often, relapse.

The gap in care while pregnant is something the providers at Project RESPECT sought to prevent. It begged the question, why stop the use of naltrexone in pregnancy and disrupt a treatment option keeping these women stabilized?

A study led by Elisha Wachman, MD, neonatologist at Boston Medical Center and Kelley Saia, MD, director of Project RESPECT, sets out to learn if naltrexone could be an alternative treatment during pregnancy for women who have OUD and are already stable on the medication. The main goal of this study is to acquire good, solid data on the use and safety of naltrexone during pregnancy, which includes studying how the medication affects both mothers and babies from delivery to one year postpartum an area that is able to be observed due in large part to BMC's strong collaboration across departments and the continuity of care between prenatal care, delivery and pediatrics. This study will also look at pharmacokinetic data, which includes understanding blood levels of the medication during pregnancy. These levels will help determine how much of the medication is transferred to the infant or how much of it is transferred into breast milk—key factors in determining the correct dosage of naltrexone.

Elisha Wachman, MD, is also the director of BMC's Cuddling Assists in Lowering Maternal and Infant Stress (CALM) Program, which is comprised of volunteer "cuddlers" who soothe babies exposed to opioids during pregnancy when parents are unable.

Another aspect of the study is comparing women who are on naltrexone to those who are on commonly-used medications such as buprenorphine. In doing so, the study will better recognize naltrexone's impact on infant development as opposed to another OUD management medication during pregnancy. Lastly, the study will begin discovering if naltrexone use during pregnancy bears any changes to babies' genetic risk profiles.

Naltrexone will not be appropriate for every expectant mother, but it could be appropriate for some. This study could help women with OUD in the future by providing evidence-based medicine to safely expand treatment options.

"If you look across the country, it's pretty limited on who is doing this and people who

"If you look across the country, it's pretty limited on who is doing this and people who feel comfortable with this treatment. BMC is ahead of the curve."

Elisha Wachman, MD

feel comfortable with this treatment. BMC is ahead of the curve," Wachman states. BMC's leadership in all aspects of addiction and recovery have made it understandably obvious as to why this study makes so much sense to live at this hospital. As other obstetricians, gynecologists and physicians in the United States are slowly embracing taking care of pregnant women with substance use disorders, BMC proves it's at the forefront.

While the study is still in its early stages, data is showing participants are experiencing continued stabilization of their opioid use disorder through the stress of pregnancy. Saia explains, "Women are getting pressure from every angle of society about what to do and what not to do in pregnancy and being able to confidently offer them this option is powerful for them, for their own self-efficacy and for their progress in recovery." Looking ahead, both Wachman and Saia plan to continue to be diligent with their research and how it is rolled out so they can generate solid and credible data about the safety and use of naltrexone in pregnant women.

As the study continues to gain traction, the goal is to increase recruitment of women who are stable on naltrexone prior to pregnancy. This will not only create good data but will allow these women to help other women who are in the same situation as them. "It's great to be on the cutting-edge of all of this and seeing things change over time as we learn more," Wachman concludes. "You know things definitely aren't stagnant at all in this area. So we are constantly changing our care practices and it's really exciting to be a part of it all."

Preventing Fatal Overdoses

Massachusetts ranks among the top ten states in the nation for opioid-related deaths. While the statistics around opioid deaths are staggering, there are effective interventions and treatments to reduce opioid overdose, but they remain tragically underutilized. A recent study of deaths by researchers at Boston Medical Center's Grayken Center for Addiction unveiled a roadmap of critical locations where more outreach can help save lives.

In collaboration with the Massachusetts Department of Public Health, the researchers looked through data for 1,315 individuals who died of opioid-related overdoses in 2014. They used the data to assess mortality risk related to overdose through eight potential "touchpoints" including unsafe prescription protocols and encounters with state agencies and medical facilities.

Four opioid prescription touchpoints included individuals who: take high doses of opioids; co-prescribe opioids and benzodiazepines; and receive or fill opioid prescriptions from multiple providers or multiple pharmacies. Four critical encounter touchpoints included individuals who: attended an opioid detoxification program; received medical attention for a nonfatal overdose; sought treatment for an infection related to their injection drug use; or were recently released from incarceration. The data, published in *Drug and Alcohol Dependence*, show more than half of those who died of an opioid overdose in Massachusetts encountered the health care, public health or criminal justice systems within a year before their fatal overdose.

"We need to focus our efforts to ensure on-demand medication and harm reduction services, including overdose education and naloxone distribution, are available in these locations during these critical times so that we have the opportunity to reduce risk of death by overdose," says Marc LaRochelle, MD, MPH, the study's lead author and a primary care physician specializing in addiction at BMC.

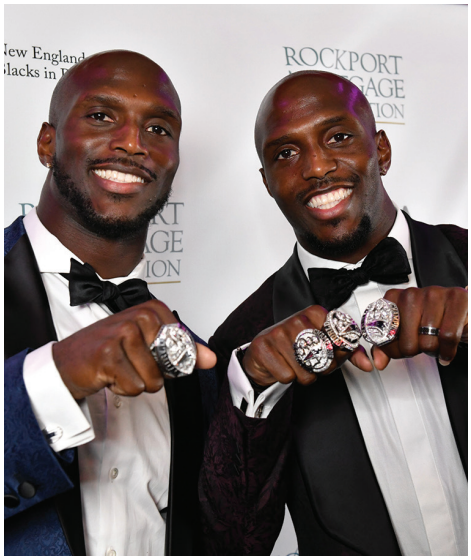
In particular, individuals who were taking a high dose of an opioid prescription had the highest mortality rates in the opioid prescription group, and those who experienced a nonfatal overdose had the highest risk of death by a future opioid overdose in the critical encounter group. Researchers noted that overdose death was 12.6 times and 68.4 times more likely for individuals who had an opioid prescription and critical encounter touchpoint, respectively, compared to individuals who did not have a touchpoint.

"If we can effectively deploy more targeted interventions that can reach those at highest risk of opioid overdose, we have the potential to eliminate up to 50 percent of those deaths in Massachusetts," explains LaRochelle.

The study's results better inform statewide efforts to quell overdose deaths through more education and naloxone distribution in prisons, medical facilities and detox programs. The study was supported in part by the National Institute on Drug Abuse, Boston University School of Medicine and the GE Foundation.

In 2019, BMC hosted 12 events, raising $5 million for the hospital.

Below are some highlights from the last several months.



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Boston Medical Center's Annual

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