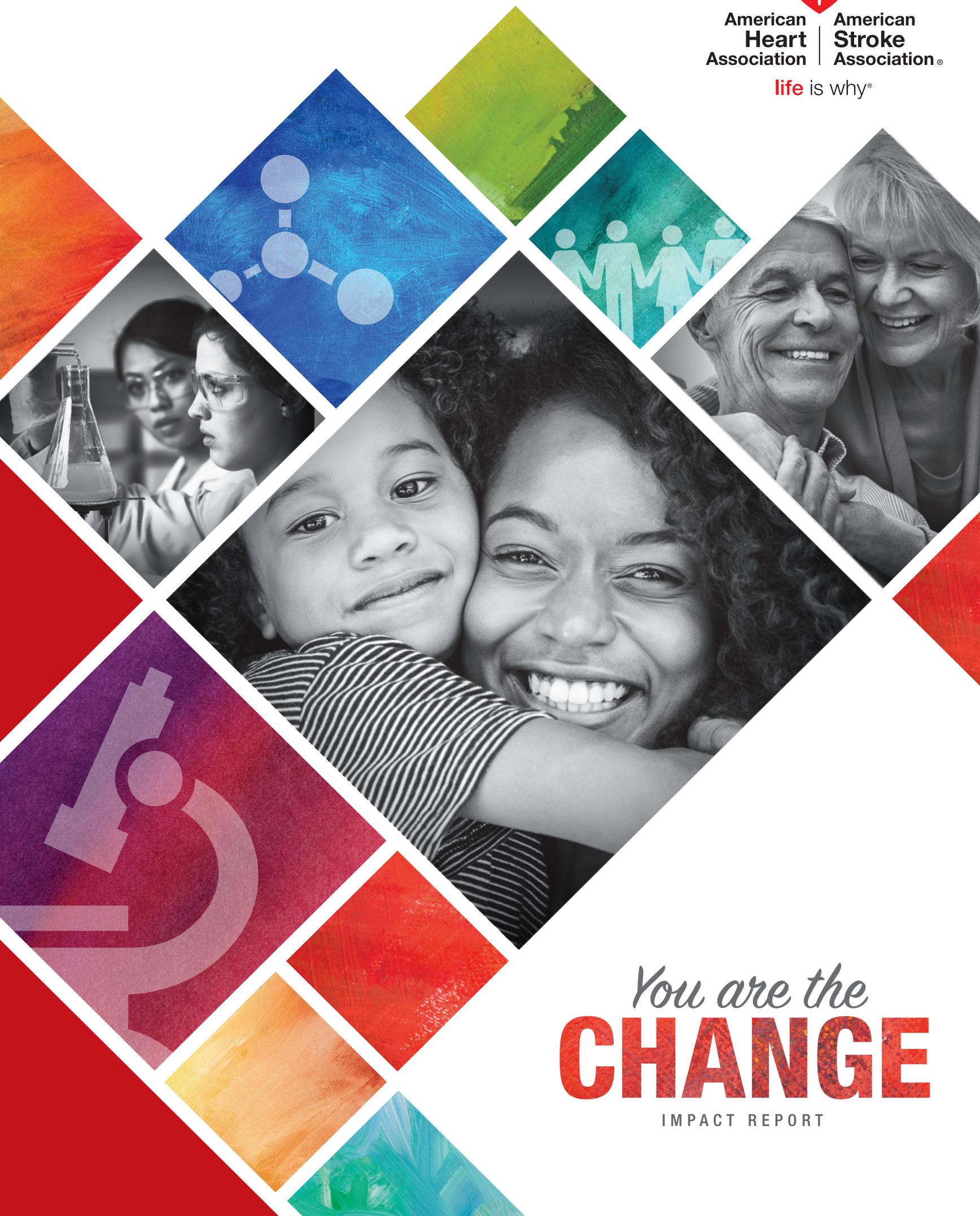




American Heart Association | American Stroke Association®

life is why®



You are the
CHANGE

IMPACT REPORT



IMPROVING LIVES

Every year, our organization's more than 30 million volunteers and supporters generously donate their time, support and resources for one selfless reason: to save and improve lives.

Your work makes everything we do possible, and I am humbled by your extraordinary efforts to help us fight heart disease and stroke. I am inspired by your dedication and commitment that drives our volunteers and staff to move our mission forward. We won't stop until we defeat the world's two deadliest diseases.

Your generosity and hard work have paid off this past fiscal year, and our major impacts are illustrated throughout this entire report. We could not do the work that we do without your support.

We must also come together to address concerns and challenges. This year, we had a wake-up call with the recent uptick in heart disease and stroke death rates for the first time in almost 50 years – in part because of the obesity epidemic, poor diet, lack of exercise and a dramatic rise in Type 2 diabetes.

In response, we're redoubling our efforts to prevent and cure these diseases. This work will be guided over the next 10 to 15 years by our **Strategic Value Proposition**: *The American Heart Association/American Stroke Association is a catalyst to achieving maximum impact in equitable health and well-being.*

This Strategic Value Proposition focuses on three areas:

- Breakthroughs in science and technology
- Changes in systems and policy
- Engaging with individuals and organizations to transform communities

We are strengthening and focusing our efforts in the same bold spirit of the organization's founders — those six physicians who bravely began to fight heart disease nearly a century ago. And we are making great strides by using the power of science and research to completely change the survival rate trajectory for people impacted by heart disease and stroke.

We're building on their legacy in a brave new world with millions of volunteers and supporters, a trusted brand and decades of revered scientific excellence. And we're not only building in America. We're expanding our efforts around the world — now at work in more than 80 countries.

We have tremendous confidence for the future, because of you. Your commitment to saving and improving lives fuels our spirit to make the world a healthier place.

In deepest gratitude,



Nancy Brown
Chief Executive Officer



SCIENCE



ADVOCACY



COMMUNITY



Breakthroughs in SCIENCE & TECHNOLOGY

Technology, research point to brighter future

Imagine a world where your doctor could predict whether you'll suffer a heart attack or stroke in your lifetime—and then help prevent those devastating events.

That world may be closer than you think, thanks to rapid advances in technology and scientific discovery.

Fortunately for the 91 million Americans suffering from heart disease or stroke—the two leading causes of death in the world—the American Heart Association is working toward that brighter future right now.

Our Institute for Precision Cardiovascular Medicine is in its fourth year in this growing field that could lead to untold new ways to save and improve lives. Precision medicine provides treatment that is tailored to a person's genetics, environment and lifestyle. The aim is to discover the right treatment for people at the right time.

Through the Institute, researchers and doctors can access and analyze massive volumes of important data and collaborate on new discoveries.

The approach is new, but the AHA's success in helping people through research is not. Since 1949, the American Heart Association has funded more than \$4.1 billion in research to increase our knowledge about cardiovascular diseases and stroke, thanks to our generous donors.

The AHA's role in research is especially important today because funding from the National Institutes of Health in these areas continues to decline. Only 4 percent of the NIH budget is allocated to heart disease research and 1 percent to stroke research.

Next-generation researchers



Joan and Paul Rubschlager

Research funded by the AHA would not be possible without donors like Joan and Paul Rubschlager. Their generous \$2.1 million gift supports precision medicine with the Paul and Joan Rubschlager Precision Promise Fund.

A portion of the fund is earmarked for research grants and fellowships for young investigators, as well as the AHA Precision Medicine Platform (see box on page 3) where scientists access data for their research.

The Rubschlagers also have created **Rubschlager Precision Research Grants** to bring scientists from different

backgrounds together, with young researchers working alongside established investigators. This setting could result in the next generation of AHA-funded researchers.

The Rubschlagers understand that more must be done, particularly for young investigators who depend on the AHA to launch their careers.

"Donors whose support came before ours created the knowledge that has so benefited our health," Joan said. "We want to give back to help others whose health outcomes will be improved through our support."

The couple's generous investment also supports AHA's My Research Legacy (see box on page 3) and local initiatives with gifts of \$100,000 to the Chicago Heart Ball and \$5,000 for Go Red For Women.

"As Chicagoans, we're proud to support research that will help so many in our hometown and across the nation," Joan said. "We're pleased to make both an immediate impact and one that will reach far beyond our years."

→ THE AHA HAS FUNDED MORE THAN
\$4.1 BILLION in research since
1949



“Donors whose support came before ours created the knowledge that has so benefited our health. We want to give back to help others whose health outcomes will be improved through our support.”

— Joan Rubschlager



NEW RESEARCH MODELS

The AHA Institute for Precision Cardiovascular Medicine is designed to accelerate the discovery of more personalized treatments and prevention. The Institute is leveraging technology to advance research in two main ways.

- 1** The AHA Precision Medicine Platform, powered by Amazon Web Services, is the online data marketplace that allows researchers and clinicians worldwide to easily access, search and analyze data that could lead them to discover new patterns to unsolved problems.
- 2** Another innovative approach is called **My Research Legacy**. Here, people aren't just patients. They take an active role in their own care.

People can visit My Research Legacy and share their personal health information through a secure platform to advance scientific research. Anyone in the U.S. over 21 can provide lifestyle, health and genetic data to participate in research studies. My Research Legacy ensures security of health information by stripping all personal identification from the health records.

The Broad Institute of Harvard and MIT is collaborating with the association on the initial pilot. Ultimately, the AHA aims to recruit 250,000 people over the next five years. This data will be available for scientific inquiry through the Precision Medicine Platform.

A NEW FRONTIER IN SCIENCE

Attacking devastating diseases demands innovative approaches. That's why the American Heart Association and The Paul G. Allen Frontiers Group have invested \$1.5 million each to support two pioneering researchers in the untapped field of the extracellular matrix.

In short, the organizations want to advance our understanding of the heart's tissues and fibers, preventing as many cases of heart disease and stroke as possible.

If we think of cells as bricks of a building, the extracellular matrix is the mortar between them. But unlike mortar, this network of protein fibers found in all tissues isn't static. It can store and transmit information beyond the lives of individual cells, and any changes in the matrix may change how cells behave. Understanding how the extracellular matrix in cardiac tissue may contribute to heart and vascular disease could change the way we attack cardiovascular disease.

The innovative collaboration leverages the association's renowned expertise funding cardiovascular research with The Paul G. Allen Frontiers Group, which supports scientific explorers with the potential to transform fields.

\$3M
supporting
2 PIONEERING
RESEARCHERS



Sue and Gary Ellis with family and friends.

Using technology to improve health

Gary Ellis knows a thing or two about using technology to improve health. As the former chief financial officer of the medical device company Medtronic, he spent two decades helping people alleviate pain, get healthy and extend their lives.

But that's not why he and his wife Sue support the American Heart Association. Their connection began when Gary's dad had open-heart surgery almost 50 years ago.

"He survived the surgery but passed away due to complications from the surgery when I was 14," said Ellis, a longtime AHA volunteer who was chairman of the national board in 2008 and 2009.

Like many volunteers, Ellis serves the AHA with both his personal passion for fighting heart disease and stroke as well as his business acumen. During his tenure as chairman, Ellis said the organization started to think more broadly about its mission.

"We felt that we had been medically focused on helping people live with their heart disease symptoms as a way of reducing death from heart disease, and we needed to shift focus to the goal of minimizing the amount of heart disease that exists," he said.

Today, Sue and Gary are excited about the new possibilities technology brings to prevention and health care.

For example, smartphone apps and wearable devices such as heart rate monitors can provide troves of personal information to help doctors understand why some people are predisposed to heart attack or stroke. Other information, including what you eat, where you live and how often you exercise also can be important predictors of health.

The AHA's Center for Health Technology and Innovation will work to find out what kinds of technology and measurement will help people's health.

The center is infusing AHA evidence-based guidelines into smartphone apps and wearable devices to better track vital statistics. Such information could be used by a doctor to tailor a diagnosis or treatment plan.

Sue and Gary were early investors in the center with a gift of \$1 million, which also supports the Institute for Precision Cardiovascular Medicine and research grants. The couple also has donated \$300,000 to the Twin Cities Heart Ball over four years.

"Sue and I are proud to be a part of this initiative, and I do believe that we're having some impact on heart disease and stroke, not only in the United States, but around the world," Ellis said.



“One Brave Idea offers the opportunity to change the paradigm for coronary heart disease.”

— Calum MacRae M.D., Ph.D., Chief of Cardiovascular Medicine,
Brigham and Women’s Hospital in Boston

Research is why— Rick Lavinsky

Rick Lavinsky has done a lot of crazy things to raise funds supporting research funded by the American Heart Association.



Rick Lavinsky

until guests started throwing money at them. One time, he offered to spend the night in a local jail for \$10,000.

Lavinsky's latest "stunt" honors his "30th birthday." Lavinsky believes he has two birthdays, his actual one in October (when he turned 73) and the day he received his mechanical heart valve.

"I've been the longest surviving patient in my cardiologist's practice," Lavinsky said. "If someone hadn't donated money to the AHA to support the development of heart valves, I wouldn't be alive."

In honor of that second birthday, Lavinsky has established a Two Life Charitable Gift Annuity at the AHA. The annuity provides a tax write-off for his gift. And, Lavinsky will receive a quarterly check for the rest of his life, after which Peggy will collect for the rest of her life. The remainder of the money will be directed toward research.

His birthday also marks his anniversary as a generous AHA volunteer. He became involved after his heart surgery. In addition to serving as local chapter president in Fairfield County, Ohio, Lavinsky has spoken to local schools and groups about the importance of research funding.

"My heart surgery was the first time I'd ever been in a hospital," he told audiences. "At that time, in the early 90s, I was certain that someday, the words 'open' and 'heart surgery' won't be in the same phrase because of research advances. We're even closer to that reality today."

"I'm very proud to have survived my surgery. The annuity is a side attraction; I would support research regardless."

Investing in cures: One Brave Idea

Despite many successes fighting cardiovascular disease, the toll remains too high.

Heart disease, stroke and other cardiovascular diseases account for nearly 17.5 million deaths around the globe each year. Coronary heart disease claims more than 7 million lives annually. And millions more people are on the path to developing the disease.

That's why the American Heart Association, Verily (an Alphabet company), and AstraZeneca came together to invest \$75 million in one team of scientists to fight heart disease. The new approach is called One Brave Idea™.

Many researchers sought the prestigious award. The scientist chosen to lead One Brave Idea is Calum MacRae, M.D., Ph.D., chief of cardiovascular medicine at Brigham and Women's Hospital in Boston.

MacRae and his team are searching for the earliest markers of heart disease, hoping to stop it before an emergency happens. The team is working to create a heart disease "early warning system" by examining what happens 10 to 20 years before risk factors typically appear.

"The first sign of coronary heart disease is often sudden death or heart attack," MacRae said. "Our tendency has been to examine the heart and arteries. But people with the disease tend to build up cholesterol in their skin or exhibit other cellular abnormalities. Why can't we measure these in your teen years?"

MacRae's team plans to use tools ranging from wearable devices to geospatial mapping, a method of assessing data by ZIP code. Such modern analytics will enable the team to combine genetic, biological, lifestyle and environmental measurements in novel ways.

"One Brave Idea offers the opportunity to change the paradigm for coronary heart disease," MacRae said. "What we learn could also be used to shift the trajectory of other widespread, chronic diseases."



Calum MacRae

 **17.5M** DEATHS EACH YEAR
around the globe from
Heart disease, stroke and other cardiovascular diseases

DID YOU KNOW?



Cost of cardiovascular disease is expected to rise to **\$1 trillion by 2035**

The cost of cardiovascular disease is expected to rise to \$1 trillion by 2035, according to *Cardiovascular Disease: The Costly Burden for Americans*, a report released by the AHA in 2017. The same study also found that 40 percent of the U.S. population currently suffers from some form of cardiovascular disease.

"Heart failure is not one disease. It's many, many different diseases, and heart attacks are not identical in the way they present

for every patient," said Joseph Loscalzo, M.D., Ph.D., a winner of the AHA's top volunteer honor, the Gold Heart award.

Loscalzo is one of the leading minds behind the Institute for Precision Cardiovascular Medicine. He is also chair and physician-in-chief in the Department of Medicine at Brigham and Women's Hospital and the Hersey Professor of Theory and Practice of Medicine at Harvard Medical School.



“Precision medicine can apply to every major cardiovascular disease — hypertension, heart failure, heart attack, stroke.”

“I’m encouraged about the future. We may even get there in my lifetime, if not, certainly the lifetimes of my children and grandchildren.”

— Joseph Loscalzo, M.D., Ph.D, a winner of AHA’s top volunteer honor, the Gold Heart award



Changes in **SYSTEMS & POLICY**



Lillian Tsi Stielstra

A little bit of luck. A lot of teamwork.

Lillian Tsi Stielstra had a bit of good fortune on her side when she felt “pins and needles” on her left side. She knew the signs of stroke. Her husband, Scott Stielstra, a firefighter and paramedic, rushed her three blocks to UCSF Medical Center in San Francisco.

Lillian, 46, learned that her high blood pressure, high cholesterol and high triglycerides (a type of fat in the blood) contributed to her stroke. Today, she’s reduced her risk of another stroke with daily exercise and a healthier diet.

But not everyone has a paramedic at their side and lives just blocks from a medical center. Stroke is the leading cause of adult disability in the U.S. and the second-leading cause of death around the world. The American Heart Association/American Stroke Association is behind some of the brightest minds pioneering new ideas, funding game-changing research and advocating for life-saving systems of care and prevention and treatment strategies.

Our work is possible thanks to support from people and partnerships committed to developing guidelines and practices that save stroke patients’ lives.



**STROKE
LEADING CAUSE
OF ADULT DISABILITY
IN THE U.S.**



**AND
THE SECOND-LEADING
CAUSE OF DEATH
AROUND THE WORLD**



4,000
DEATHS FROM
STROKE
IN STATE OF
GEORGIA IN
2015

DID YOU
KNOW?

Getting stroke treatment quickly saves lives and prevents disability. Experts recommend treatment within 3 to 4½ hours of the first sign of stroke.

In a recent study printed in the Radiological Society of North America, 91 percent of patients who received the recommended stroke treatment within 2½ hours showed little to no disability afterward. They were treated with a clot-busting drug called tPA, which is the only FDA-approved treatment for ischemic strokes, and a stent retriever.

Every second counts

Everyone deserves the best access to stroke care, regardless of where they live. But for many, where they live determines the kind of care they'll receive in an emergency. Take Georgia, for example, which is part of America's "stroke belt." In 2014, there were 36.5 deaths per 1,000 people from stroke in the U.S., compared to 42.6 in Georgia, according to the National Vital Statistic Reports.

Clot-busting drugs and medical devices have made stroke largely treatable, but every second counts. The faster you get treatment, the more likely you are to recover without a serious disability.

Bernie Marcus and The Marcus Foundation, Inc., understand the need for rapid treatment and have provided generous funding toward its advancement. In collaboration with the American Heart Association/American Stroke Association, the Marcus Stroke & Neuroscience Center at Grady Hospital and Emory University, both in Atlanta, have formed the **Marcus Stroke Network**.

Starting in Metro Atlanta, the network will give stroke patients the best chances of surviving and thriving after a stroke. The network will optimize the AHA/ASA's science-based systems of care, technology and treatment protocols throughout the region. The Marcus Neuroscience Institute in Boca Raton, Florida, will also be a key partner.

Combining the association's Get With The Guidelines program with novel technology-

based approaches will help give patients in the region the best possible outcomes.

The Marcus Stroke Network will also establish a regional telestroke hub in partnership with the Marcus Stroke & Neuroscience Center at Grady Hospital. Telestroke lets neurologists give stroke patients immediate, real-time and/or remote diagnosis and treatment, saving critical time. And EMS providers can use the technology to make rapid, accurate assessments and triage decisions like determining the nearest appropriate stroke center. For many people, this could be a game-changer that helps them not only survive a stroke, but also leave the hospital without a serious disability.

"We're proud to partner with the AHA/ASA on this collaborative effort that will provide quality of patient care for everyone in this region, reducing the number of stroke-related deaths in the Southeast," said Dr. Mike Frankel, director of the Marcus Stroke & Neuroscience Center at Grady Memorial Hospital and Division Director of Vascular Neurology at Emory University.

Atlanta will also receive its first mobile stroke unit, a specially equipped ambulance that brings a diagnostic CT scanner directly to patients.

Such technology and scalable solutions will be measured for their health impact by the AHA's Center for Health Metrics and Evaluation (see page 11). What we learn will be used to strengthen stroke care across the country.



“We believe in this collaborative approach of science discovery between investigators that fosters continuous dialogue between scientists and looks at new ways to research underserved areas.”

— Gayllis Ward, trustee of the Bugher Foundation

Expanding stroke care

When you live hundreds of miles from a hospital, and it’s snowing, your chance of surviving a stroke dramatically decreases.

That scenario is familiar and very worrisome to Walter Panzirer, a North Dakota resident who also serves as trustee of The Leona M. and Harry B. Helmsley Charitable Trust. It also drives Panzirer to make sure people can get the emergency treatment they need.

Since 2010, Panzirer and the Helmsley Charitable Trust have partnered with the AHA/ASA, investing more than \$41 million to support expedited high-quality health care in seven rural states. The most recent collaboration in North Dakota expands stroke care through Mission: Lifeline Stroke, which is helping patients throughout the state get evidence-based care fast.

In this new investment, the AHA/ASA is connecting the critical elements in stroke care — from emergency responders and hospitals to policy-makers statewide. The goal is to give patients a seamless plan of action from the time symptoms start through rehabilitation and recovery.

“We believe that a comprehensive approach is the best way to move the needle, especially for rural populations that face longer transit times and limited access to specialists,” Panzirer said.

Rehabilitation experts also have been added to the Mission: Lifeline approach.

“The Helmsley Trust has changed the way we deliver healthcare in North Dakota,” said local paramedic and State Representative Todd Porter.

What is MISSION: LIFELINE Stroke?

Mission: Lifeline Stroke “connects the dots” in a system of care to improve the speed and quality of stroke care.

First, the community must recognize stroke warning signs and immediately call 911. From there, it’s about collaborative efforts to save lives and reduce disability: EMS responders, hospitals, emergency communications centers, medical direction agencies, local government, media and payers.

Mission: Lifeline also treats patients with STEMI heart attacks and sudden cardiac arrest. STEMI heart attacks are major causes of death and disability and require urgent attention, and sudden cardiac arrest is a leading cause of death worldwide.

Center for Health Metrics and Evaluation

American Heart Association programs such as *Mission: Lifeline* were created to save and improve lives.

But how do we measure their impact? How do we improve them to make an even bigger impact? And would a program like Check. Change. *Control.*, which has seen success in a church setting, help people control their blood pressure if offered in the workplace?

These are just some of the questions the AHA's Center for Health Metrics and Evaluation is tackling.

We know the AHA's science-based programs improve people's health, and it's important that we prove it by showing the proper data. That's how we know how much to invest in our programs, policy and advocacy efforts, and quality improvement initiatives. This accountability helps donors invest their trust and financial support in the AHA with great confidence.

A legacy of collaboration

Hemorrhagic strokes — caused by a rupture in a blood vessel in the brain — kill about 100,000 people every year, making up about 15 percent of stroke cases.

Today, most research funding supports ischemic stroke, a more common type of stroke. But 100,000 stroke deaths a year is far too many. With today's advances in precision medicine, big data and technology, the time to invest in hemorrhagic research is now.

Enter the Henrietta B. and Frederick H. Bugher Foundation. The foundation has a four-decades long history of collaboration with the AHA/ASA, particularly in stroke research. Late trustee and AHA friend Dan Adams pioneered the concept of cross-institutional collaboration, a vital practice that's still going strong with our Strategically Focused Research Networks (see page 19).

The Bugher Foundation's most recent gift of more than \$11 million will support **The ASA-Bugher Centers for Excellence in Hemorrhagic Stroke**, building on a legacy of collaborative science. We need more research to develop lifesaving therapies and test screening techniques that help patients better understand their risks for a hemorrhagic stroke.

The centers will engage in innovative projects targeted to make bold breakthroughs, improving prevention and treatment of hemorrhagic stroke. Investigators and clinicians with different backgrounds and experiences will share knowledge and learn from one another to speed discoveries. And the next generation of stroke scientists — young fellows at each center — will receive the training they need to succeed.

This most recent gift from the Bugher Foundation brings the foundation's total giving to the AHA to more than \$48 million.

"We believe in this collaborative approach of science discovery between investigators that fosters continuous dialogue between scientists and looks at new ways to research underserved areas," said Gayllis Ward, trustee of the Bugher Foundation.

The centers will also leverage AHA's My Research Legacy and Precision Medicine Platform (powered by Amazon Web Services) for its research (see page 3). My Research Legacy will engage a patient cohort with hemorrhagic stroke to learn more about genetic factors, environmental factors, prevention and treatment. AHA's Precision Medicine Platform will be used to share and analyze data across projects.

"We need to do more than prevent deaths. We need to promote health."

— Donald Lloyd-Jones, M.D., cardiologist and chair of the department of preventive medicine at Northwestern University's Feinberg School of Medicine, and AHA's Physician of the Year



HEMORRHAGIC STROKES
kill 100,000
PEOPLE EVERY YEAR
THAT IS **15%**
of all stroke cases



22 Million
people worldwide
WERE TRAINED
in 2016 by the
AHA IN CPR



CPR Kiosk located in Dayton, Ohio

DID YOU KNOW?

Cardiac arrest is a leading cause of death. Every year, over 350,000 out-of-hospital cardiac arrests occur in the United States.

While many people assume cardiac arrest means heart attack, they are very different. A cardiac arrest is an electrical malfunction that causes the heart to stop beating. A heart attack occurs when oxygen flow to the heart muscle is severely reduced or cut off due to plaque buildup.

Someone struck by cardiac arrest usually collapses and is technically dead. Survival depends on immediate CPR. However, outside of a hospital, immediate help from bystanders only comes about 46 percent of the time.

Survivor's donation helps others save lives

Joe Chlapaty



After getting a pacemaker implanted to treat heart problems and suffering a stroke seven years ago, Joe Chlapaty

feels fortunate to be alive.

That feeling has intensified his desire to help others ever since — especially as a volunteer for the American Heart Association.

“I’m fine today, but the whole thing struck a chord with me about heart health, science and moving forward,” said Chlapaty, former CEO of Advanced Drainage Systems in Hilliard, Ohio.

So when Chlapaty was asked to serve as the chair of the AHA’s Columbus Heart Ball and consider making a gift, he was eager to help. He just wasn’t sure what he wanted to do.

That’s when Chlapaty heard of a fellow Ohioan who learned CPR and then saved a life just two days later.

University of Dayton student Matthew Lickenbrock was driving to an evening class when he saw a flash of lightning. The lightning struck 23-year-old Sean Ferguson. Lickenbrock, who learned Hands-Only CPR at an American Heart Association airport kiosk during a layover just days before, saw Ferguson and jumped in to save him with his newfound skills.

The story prompted Chlapaty to fund a new CPR kiosk in Columbus so others can learn the lifesaving skill.

Hands-Only CPR has been shown to be as effective as conventional CPR for cardiac arrest outside the hospital. It can double or even triple a person’s chance of survival.



IMPROVED STROKE CARE

37 MILLION
WILL BENEFIT

TAX TO REDUCE SMOKING

55 MILLION
IMPACTED

TOBACCO AGE LIMIT RAISED

4.6 MILLION
AFFECTED



More than 300 AHA volunteers and You're the Cure advocates met in our Nation's Capital for the association's biennial federal Lobby Day.

Together, we're the cure

Countless advocates, volunteers and partners helped pass 84 state and local laws or regulations that contribute to a culture of health and well-being in communities across the country. It's all part of our effort to make the healthy choice the easy choice everywhere. Below is a snapshot of our successes this past year.

1 Improved stroke systems of care in Delaware, Missouri, Indiana, Connecticut, South Carolina and Pennsylvania. More than 37 million

people and nearly 215,000 patients will benefit from new policies that established recognition for stroke facilities. Colorado and Montana established statewide registries for STEMI heart attacks, benefiting more than 6 million people and 100,000 STEMI heart attack survivors each year through data collection that will improve care.

2 Advocated for increased tobacco taxes. California, Pennsylvania and Oklahoma increased their tobacco prices, a proven strategy for reducing smoking, impacting more than 55 million people. A portion of the

California tax will provide about \$100 million to support tobacco prevention and cessation programs.

3 Pushed for stricter age limits to buy tobacco. Massachusetts, Missouri, Michigan, New Jersey, New York, Ohio and Rhode Island residents now must be 21 to purchase tobacco. This law affects more than 4.6 million residents and will help significantly reduce the number of adolescents and young adults who start smoking.

DID YOU KNOW?



Sugary drinks are the No. 1 source of added sugars across our nation

The AHA recommends children 2 to 18 consume no more than one small sugary drink per week, but kids today often drink 10 times that amount.

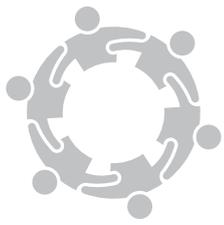
In fact, sugary drinks are the No. 1 source of added sugars across our nation. Since taxes on sugary drinks reduce consumption, we've made supporting such policies a priority.

In just one year, five new jurisdictions passed taxes to curb consumption and fund critical public health and education programs in their communities. Four cities passed taxes by popular vote: Albany, Oakland and San Francisco in California, and Boulder in Colorado. Seattle also followed suit with a legislative win. Combined, more than 3.7 million people may be motivated to drink fewer calories, ultimately reducing their risk factors for Type 2 diabetes and heart disease.

Save more lives by
advocating at:



yourethecure.org



Transforming COMMUNITIES

Our nation's health begins with you



From left to right: Richard Metzger, Adam Culliton and Carol Rae Culliton

Carol Rae Culliton and the Gunterberg Foundation have a long history of supporting local programs and projects aimed at saving lives and building healthier communities.

Culliton understands that an enormous challenge like improving the cardiovascular health of the nation requires a big solution — one that begins at home.

“We are blessed to be in a position where we can help others and have a positive impact in the communities where we live,” Culliton said.

As dedicated volunteers of the American Heart Association, Culliton, her husband Richard Metzger and son Adam Culliton lead the Gunterberg Foundation. Together, they have invested nearly \$800,000 in the

AHA to improve the health and well-being of Lancaster, Pennsylvania, and Cape Coral, Florida. They have generously provided funding for CPR Anytime kits and Check. Change. *Control.*, the association's blood pressure control program.

“We believe in the lifesaving mission of the American Heart Association and are proud that the foundation can be a partner in solving the health issues that plague our nation,” Culliton said.

The AHA's mission is to build healthier lives, free of cardiovascular diseases and stroke.

To help accomplish this, the association engages with individuals and organizations in communities to pinpoint health needs and

then implement solutions. With partners like the Gunterberg Foundation, the AHA is building a culture of health in communities across the nation by:

- Partnering for healthier schools and early childcare
- Providing patient education and support
- Creating healthier workplaces
- Strengthening public policy to create healthier environments
- Advancing scientific research
- Addressing social determinants of health
- Improving care and response, including CPR training
- Providing education and resources to help people eat healthier
- Increasing physical activity, including walkable communities
- Supporting recovery from heart disease and stroke

Not every neighborhood faces the same health issues. It's important for the AHA to work within communities to find the most impactful opportunities. The following stories illustrate some of the ways donors, volunteers and organizations are collaborating with the AHA to make the healthy choice the easy choice where we live, work, play and heal.



MISSION:
BUILD HEALTHIER
LIVES, FREE OF
CARDIOVASCULAR
DISEASES AND STROKE



The AHA's mission is to build healthier lives,
free of cardiovascular diseases and stroke.

A tale of two cities



PARTNERSHIPS CREATE CHANGE



Pennsylvania county shows power of health partnerships

Allegheny County in southeast Pennsylvania is a prime example of how the American Heart Association is partnering with organizations to fill specific health needs in communities.

In October 2016, the AHA joined the county's existing "Live Well Allegheny" initiative, begun by the Allegheny County Health Department with a goal to improve the health and wellness of county residents. The initiative engages workplaces, faith-based organizations, health systems, health insurance companies, pharmacies and schools.

Missing from this initiative was an important blood-pressure control component. Live Well Allegheny incorporated the association's evidence-based high blood pressure resources for doctors and patients, Target: BP and Check. Change. Control.

This was critical because blood pressure has no visible symptoms, yet can greatly

increase the risk of heart attack, stroke and other major health problems.

Research shows that just a 5 point drop in blood pressure reduces heart disease mortality by 9 percent and stroke mortality by 14 percent.

After the AHA joined, the partnership continued to grow.

Giant Eagle Pharmacy, a local AHA Heart Walk sponsor with 220 pharmacies in the region, agreed to partner with the AHA to include Check. Change. Control. in its stores. Messages were included in circulars and on in-store signs to encourage residents to get their blood pressure checked. Participants received educational materials to help with awareness and treatment, if needed.

While it's still too early to know how much this effort has helped to control high blood pressure, the initiative is a powerful illustration of how the AHA can bring together partners to fill a community's health needs.



Ingredients for a healthy life

In many parts of the country, people live in "food deserts," meaning fruit, vegetables and other healthy foods aren't available nearby. Steve and Kathie Markel wanted to help solve this problem, so they decided to build a grocery store in east Richmond, Virginia.

But their investment in the community didn't stop there.

"We also realized that a lot needed to happen before the doors opened," Kathie said. "People walking in for the first time weren't going to know how to incorporate fruits and vegetables in their diet if they've never been exposed to them. We needed a partner to help engage people."

So they started working with the American Heart Association.

"We wanted to invest in changing the culture of the community, and the AHA presented that opportunity," Steve said.

Kathie and I started this project because we realized the complexity of the problem," Steve said. "Once we understood that we needed the AHA's help to engage the community in lifechanging healthy habits, we could apply our resources more intelligently."

The Markels' investment of nearly \$300,000 with the AHA will fund a community outreach manager who will support the health and wellness of the residents in the East End of Richmond, with a focus on healthy eating, lifestyle and prevention programs.

This collaboration demonstrates the AHA's guiding value of meeting people where they are to build a culture of health. It also underscores the need for many partnerships with multiple organizations and people to tackle systemic issues like food deserts. The AHA and the Markels aim to use lessons learned from this community to develop solutions that may work in other parts of the country.



DID YOU KNOW?



Blacks have a risk of first-ever stroke that's almost twice that of whites.



Among non-Hispanic blacks 20 and older, 44.9 percent of men and 46.1 percent of women have high blood pressure. Blacks have a risk of first-ever stroke that's almost twice that of whites.

The AHA wants to change those statistics. One way it's working in multicultural communities is through EmPOWERED To Serve, which drives behavior changes that will improve the health of underserved populations. EmPOWERED To Serve

often occurs in faith-based organizations, making a lasting impact that begins locally and reaches far beyond.

**To learn more:
empoweredtoserve.org**



Liz Elting, Cor Vitae Society President's Circle member, Janice Hall, Cor Vitae Society Champion's Circle member, Mara Schiavocampo ABC News Correspondent, Vas Nair Cor Vitae Society member, and Lori Klein, NYC Board of Directors and Cor Vitae Society member.



Heart disease is the leading cause of death for women in the United States

EVERY 80 SECONDS A WOMAN DIES OF HEART DISEASE

Leading by example

“Empower the women around you.” For many, that’s an inspirational quote. For Liz Elting, it’s a way of life.

You might expect that from someone who has received accolades like “Women of Power & Influence” by the National Organization for Women, “Enterprising Woman of the Year” by Enterprising Women, and “Entrepreneur of the Year” by American Express.

Elting, co-founder and co-CEO of TransPerfect, the world’s largest privately owned language solutions company, was born to lead and inspire. The company has grown to more than 4,000 employees and 11,000 clients, and it supports several worthy causes, including the American Heart Association.

Elting is passionate about personally encouraging others, including her employees, to do good in the world. She serves the AHA Go Red For Women movement as the Founding Circle of Red Ambassador in New York City. She leads this dedicated group whose members have personally made a financial commitment to save and improve lives with education, awareness and advocacy efforts.

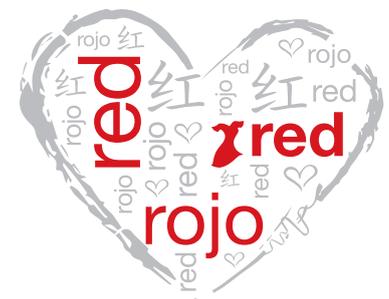
“By harnessing the passion and the power of women to band together to wipe out heart disease, the Go Red message educates women everywhere so they can understand their risk,” said Elting. “Most importantly, it gives them tools to take action on their health.”

Elting and Jessica Eker, senior vice president of TransPerfect, are the corporate campaign co-chairs of the 2017-18 Go Red For Women movement in New York City. They’re galvanizing other influencers and corporations to join their efforts to raise awareness that heart disease is the No. 1 killer of women, and to encourage more women to take action.

One of every three women’s deaths in America each year is from cardiovascular diseases, yet Elting notes 80 percent of these deaths may be prevented with education and lifestyle changes.

“This eye-opening statistic should inspire us to make sure that we do not allow heart disease to claim even one more life — especially when we have the power to do something about it,” Elting said.

“It’s an honor to contribute to the American Heart Association’s mission through the worldwide Go Red movement,” Elting said. “If I can inspire just one more woman to make the healthy lifestyle changes that could save her life, I will have done my job.”



Go Red Por Tu Corazón

Although Hispanics are more likely to develop heart disease 10 years earlier than non-Hispanics, only one in three Hispanic women know that heart disease is their No. 1 killer.

Community leaders, key stakeholders and health experts across the country are working to change these statistics. Hundreds of multicultural events served more than 20,000 diverse women this past year to help them do just that.

Dia De Los Madres: Los Angeles

Nearly 130 guests celebrated Mexican Mother's Day, hosted by the AHA to encourage Latina women to take care of their heart health.



From left: CeCe Alvarado with her mother Margarita Granados, and Malka Sierra



Vestido Rojo: Houston

Vestido Rojo, an educational event to help Latina women reduce their risk of heart disease and stroke, drew more than 400 participants. The event was presented in English and Spanish. Sponsors included CVS Health and Macy's.



Nearly 100 people committed to healthy lifestyle choices and a solid medical plan when they signed up to manage their blood pressure with help from the association's proven Check. Change. Control. program.

More than 200 guests participated in a Zumba class as part of #GoRedGetFit.



A life saved



Can someone answer a question for me please? Off and on middle of chest pain/pressure, middle of back pain, arms and shoulders

off and on deep aches Are these signs of a heart issue?

That was Tami Wright's post on April 6, 2017 to the #GoRedGetFit Facebook group. The overwhelming answer: GO TO THE ER.

Although Wright's mom passed away at age 65 from a massive heart attack after exhibiting similar symptoms, sometimes it's easy to brush off warning signs. But thanks to the urgent replies from members of the 15,000-plus group, Wright got medical care before she had a heart attack.

In her next post, four days later, Wright revealed that she had 90 percent blockage, and had two stents inserted.

"Since my mom passed, I had been scared the same thing would happen to me," Wright said. "All of the posts on #GoRedGetFit convinced me to go to the hospital. I owe my life to everyone who commented."

#GoRedGetFit was launched in March 2016 in partnership with national founding sponsor Macy's. The group encourages women to live healthier. Health and fitness challenges and celebrity fitness trainers motivate participants with tips, healthy recipes, advice, support, and prizes. Join today on Facebook at #GoRedGetFit.



Annabelle Provisor

Hope for a healthy future

Soon after Annabelle Provisor was born, her mom realized something was very wrong.

Arlene and Bruce learned that Annabelle's blood oxygen levels were low, thanks to a mandatory pulse oximetry test for newborns. Tests revealed that Annabelle had a critical congenital heart defect that required immediate surgery.

She needed a second surgery at 18 months, but after that she has lived a mostly normal life.

Today, Annabelle is a healthy 10-year-old. She sees her cardiologist every two years for a check-up. She's involved in student council, is learning to play the alto saxophone in the school band and got up on a surf board for the first time.

But if Annabelle had been born 10 to 15 years earlier, these typical activities might not have been possible, because those surgeries weren't so routine. And, the pulse ox test might not have been administered.

Now, all but four states mandate pulse oximetry tests for newborns, thanks to American Heart Association advocacy measures.

Kids like Annabelle have more hope than ever of growing up healthy, because of significant investments in research and education from the AHA's partners and advocates.

Healthy habits begin early

The burden of cardiovascular disease is growing faster than our ability to combat it, partly due to the dramatic increase in obesity, a major risk factor for heart disease and stroke.

Obesity impacts kids as early as age 2 and increases as they get older. An estimated 12.5 million kids age 5 and younger spend 33 hours a week in early childcare and education settings, where they may consume most of their calories.

Recognizing the need to influence kids' environments and healthy habits early, the AHA and Nemours, a nonprofit pediatric health system, partnered to create Healthy Way to Grow. In its first four years, the program has improved healthy learning environments for nearly 33,000 children from birth to age 5 in 337 early care and education centers in six communities.

This includes:

- Supporting centers in creating wellness policies and implementing best practices
- Incorporating nutrition education and experiences into classroom activities
- Improving the nutrition of meals and snacks
- Increasing the amount of physical activity time
- Limiting TV/video time
- Training staff on nutrition and physical activity
- Educating and reaching out to parents



\$5.5M
investment

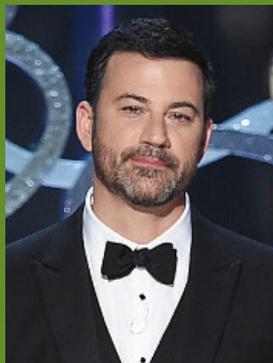


The initial \$5.5 million, five-year investment came from the William G. McGowan Charitable fund, which shares the AHA's passion for empowering future generations. The investment has propelled the AHA's early childhood health work nationally, including policy change, education and research.



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Hope for the future



Jimmy Kimmel, photo courtesy of Getty Images

In May 2017, late-night TV host Jimmy Kimmel used his opening monologue to share a personal tale about the day

his son was born. What should have been a heartwarming story was actually a frightening one that could've been tragic. His son was born with a congenital heart defect.

Congenital heart defects, or CHDs, occur in at least 40,000 infants per year in the United States. Of these, about 25 percent will require invasive treatment in the first year. The good news for families like the Kimmels is that congenital heart defect mortality has declined 39 percent since 1979.

The AHA funds more pediatric cardiac research than any organization outside the federal government. Research helps us understand, identify and treat congenital heart defects so that more children can live long, healthy lives.

The Children's Heart Foundation is a pivotal partner in funding CHD research. Together, we're committing \$22.5 million toward congenital heart defect research through 2021 to bring innovative solutions to survival rates and care. More than \$2.42 million in grants has already been awarded. Raising awareness and providing support for patients and their families remains a focus for the Children's Heart Foundation.



Advocating for children

The American Heart Association's advocacy and grassroots efforts have been critical in driving widespread policy change to help kids get healthier.

These policies give children the opportunity to be active and eat healthy where they live, learn and play, while significantly reducing health disparities. We do this through Voices for Healthy Kids, a joint initiative between the AHA and the Robert Wood Johnson Foundation.

Since Voices for Healthy Kids was launched in 2013, we've made an impact on more than 152 million people across the country through public policy initiatives, technical assistance and public education. This past year, Voices for Healthy Kids supported 63 policy wins that helped build healthier communities. Here are a few examples:

- Cities and states across the nation are dedicating more funds to improve walking and biking routes.
Impact: *More than 65 million people will have safer streets, sidewalks and trails to get active.*

- To help consumers choose healthy foods when they're on the go, community leaders have implemented policies that require healthy food in state-funded cafeterias and vending machines.

Impact: *Ten communities nationwide are transforming food options in public places, improving access to healthy foods for more than nine million people.*

- Physical education policies passed in Washington state, Texas and New York City will allow school districts to review physical education programs and identify areas for improvement.

Impact: *This helps 7.1 million students form healthy habits and reduce their risk for chronic diseases.*

- Healthy foods are on the menu at schools in California and Rhode Island.

Impact: *These meals are reaching nearly 7 million students, more than half of whom are eligible for free or reduced-price lunch. State policies now meet federal nutrition standards.*

To date, Voices for Healthy Kids has received more than \$60 million from the Robert Wood Johnson Foundation to support our work ensuring the health of our nation's children.



American Heart Association®



Robert Wood Johnson Foundation

MAKING EACH DAY HEALTHIER FOR ALL CHILDREN™





Congenital heart defects, or CHDs, occur in at least 40,000 infants per year in the United States.

Collaborating for a cure

The AHA's Strategically Focused Research Networks were established in 2014 to fund research teams at universities focusing on cardiovascular issues. This cross-collaboration is fueling faster discoveries to prevent, care for and one day cure heart disease and stroke.

Each network is comprised of three to five institutions, selected by a peer-review process. Each institution works on three projects over four years, all focused on one strategic area that drives toward our 2020 Impact Goal: to improve the cardiovascular health of all Americans by 20 percent while reducing deaths from cardiovascular diseases and stroke by 20 percent.

Our newest network, launched in July 2017, focuses on children's health. Here's a bit about what each institution is doing:

Children's National (Washington, D.C.): Rheumatic heart disease

Rheumatic heart disease is a preventable, treatable form of heart disease that affects the poorest, most vulnerable populations. Left untreated, it can lead to death, but treatment requires costly surgery that's often out of reach. This team is focusing on strengthening the health system response to rheumatic heart disease and developing evidence-based prevention strategies.

Health University of Iowa (Iowa City): Congenital heart disease

This team is using machine-learning data-mining algorithms to predict or prevent congenital heart disease and improve decision-making for parents and physicians.

Northwestern University (Chicago): Early-life origins of cardiovascular health

Three research projects are examining kids from birth to adolescence to learn how to preserve ideal cardiovascular health.

Duke Health (Durham, North Carolina): Childhood obesity

This study is examining pathways to obesity in children as well as intervention and treatment strategies for adolescents.



2020 Impact Goal: to improve the cardiovascular health of all Americans by 20 percent while reducing deaths from cardiovascular diseases and stroke by 20 percent.



“Your tireless passion and generous support fuel our search for cures to cardiovascular diseases and stroke. Thank you for your bold commitment to fight for the health and well-being of everyone in this country and around the world.”

*— Nancy Brown
Chief Executive Officer*



American Heart Association | American Stroke Association®

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