

IMPACT REPORT





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115+

public health and
community partners



36

faculty scholars
and program alumni

40+



scholarship grants awarded
to promote innovation and
diversity programs since 2013



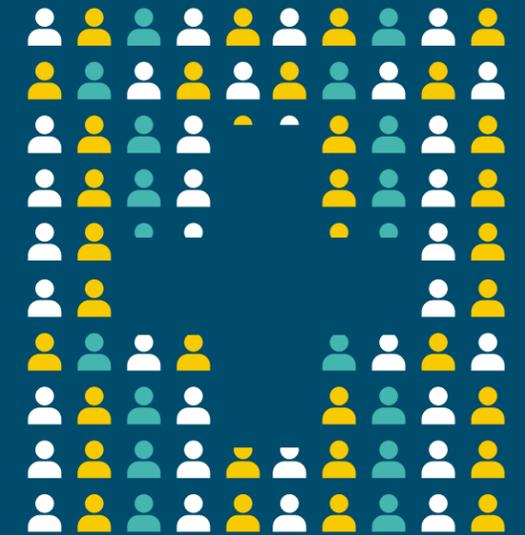
\$4M+

in scholarships provided since
scholarship program started



\$10M+

in patient-centered
research



10,000+

patients impacted by
Foundation research



research spanning across

20 STATES

01

EXECUTIVE SUMMARY



How can we fill access gaps to improve equitable health care?

How can we address systemic weaknesses in health care exposed and worsened by the COVID-19 pandemic?

What causes delays in care that make sick people sicker?

How can we expand access to preventive care measures?

Which scalable care models improve patient health for the most prevalent conditions like cardiovascular disease, diabetes, and behavioral health conditions?

There are answers to these questions. Some simple, some complicated. The NACDS Foundation is committed to finding them.

The NACDS Foundation is on the forefront of paradigm-shifting solutions to address pressing public health problems. Every day could be the day that ground-breaking research saves a life.

We attract the brightest minds from the best institutions, then shorten the distance between patients and innovative health interventions using familiar neighborhood settings as points-of-care access.

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**THE
FOUNDATION
OPERATES AS A
LABORATORY OF
INNOVATION.**

”

**NACDS Foundation Chairman,
Steve Anderson, FASAE, CAE, IOM**

“
**THE RESEARCHERS AND
COMMUNITY LEADERS WE WORK
WITH ARE EVERYDAY HEROES.**

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**NACDS Foundation President,
Sara Roszak, DrPH, MPH**



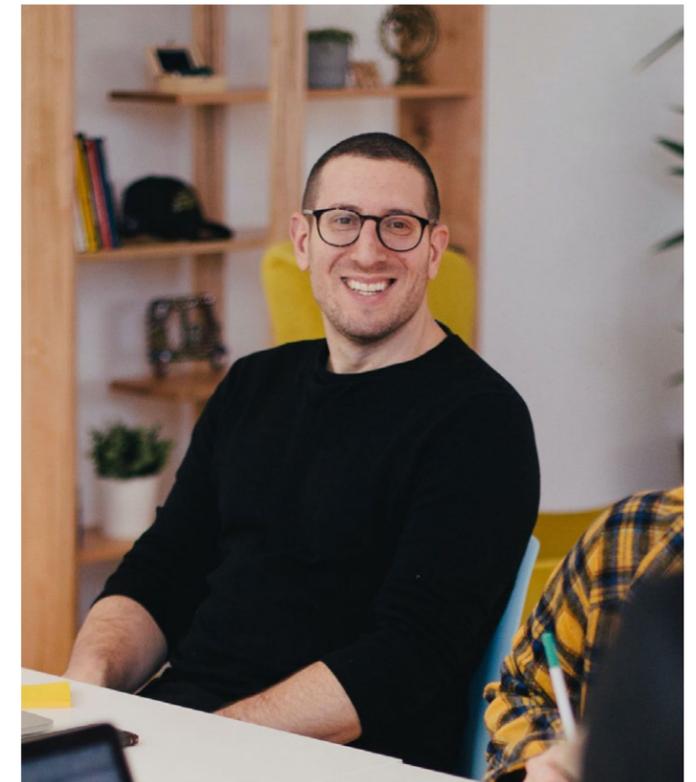
The Foundation boldly began as a cultivator of ideas that quickly grew to spearhead nationally lauded research programs. The Foundation research portfolio includes more than 20 projects that have impacted more than 10,000 patients.

**7 YEARS. 20+ PROJECTS.
10,000+ LIVES CHANGED.**



Academic institutions and public health entities power our work. Philanthropy sustains it. Each breakthrough – big or small – is the result of a community of supporters, researchers, and those on the frontlines of care.

**COMMUNITIES ARE
CULTIVATORS OF HOPE.**



Simply put, we facilitate easier, faster, more personal access to quality care in communities across the country, particularly those that are underserved and vulnerable.

Our research pipeline runs non-stop. Projects range from small-scale to multi-phased. The Foundation oversees research development and execution, then findings are published through peer-reviewed journals and shared through other channels, such as academic presentations.

**WIDESPREAD GOOD
BEGINS LOCALLY.**



The events of 2020 underscore the importance of communities. Each is distinctly unique, an individual culture of caring and a prevailing source of comfort. Communities are also places of promise and opportunity – a foundation, so to speak, where patients can get the care they need – right where they live.

**THE CARE GAP IS
MEASURED IN MILES,
NOT JUST DOLLARS.**

02

OUR RESEARCH PORTFOLIO

The need for independent and objective research is constant and critical. It is the engine that drives our work. Exploring innovative patient care models to expand and link community care is our sole objective. Behind our studies are stories – stories of patients, healthcare researchers and thought leaders, community champions, and the passionate efforts of many.



EVOLVING THE CARE ECOSYSTEM

The healthcare landscape is rapidly evolving. For fast-paced change to benefit people the most, it's essential to evaluate the coordination and alignment of a patient's entire care team.

Accountable Care Organizations (ACOs) are a relatively new care model designed to provide coordinated care to patients. At the Foundation, we set out to examine ACOs in the community context by bringing coordinated care directly to patients at local pharmacies. Results are encouraging. This promising new paradigm can help more people, more quickly, in a more harmonized way, without reinventing the wheel. The NACDS Foundation is proud to be part of this story.

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Chronic diseases are the leading cause of death and disability and the largest driver of public health costs. According to the Centers for Disease Control and Prevention (CDC), six in 10 American adults suffer from a chronic disease.¹
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Comprehensive Medication Management (CMM) is a care model designed to ensure optimal medication use and better control of chronic conditions through the close collaboration of patients' pharmacists and their broader healthcare team. CMM is particularly helpful for the most common and costly chronic conditions, such as hypertension, cardiovascular disease, and diabetes. When medication is taken as recommended, hospitalizations and readmissions can be prevented, conditions can be better managed, health and wellbeing can improve, and public health costs may be reduced.

Despite CMM's proven success in improving patient outcomes, it has yet to be made widely accessible to patients. The answer may be as simple as improving communication and connection between frontline healthcare professionals and access to the educational tools important for success.

Given that chronic diseases are responsible for seven out of 10 deaths in the U.S., killing more than 1.7 million Americans each year², this research has the potential to impact hundreds of thousands of people and their families.

Health care in the United States is shifting to a patient-centered approach that focuses on positive health outcomes, and is often referred to as “value-based” care. Which care models rise to the top? Using community pharmacies as an access platform, we piloted several clinical interventions to measure which patient-centered models worked best for patients.

High marks went to those that meaningfully improve health outcomes and are most sustainable. This research may help healthcare providers and public health officials build and scale higher-performing community care models that prioritize patient outcomes as soon as tomorrow.

¹ <https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>
² Raghupathi W, Raghupathi V. An Empirical Study of Chronic Diseases in the United States: A Visual Analytics Approach. Int J Environ Res Public Health. 2018;15(3):431. Published 2018 Mar 1. doi:10.3390/ijerph15030431
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5876976/>

CLOSING THE GAPS – BIG & SMALL

The Foundation understands that even a small gap in care may put a patient at risk. Our research works to combat these gaps – big and small. By identifying lapses in care and how to efficiently close them, the Foundation is rewriting the story of chronic care management in the community.



Diabetes is a complicated disease. Diagnoses are growing annually for certain populations across the nation. Those afflicted with diabetes are two times more likely to die from a heart attack or stroke.³ To address this risk, statin therapy is often recommended for patients with diabetes, though many don't receive it in time. A new care model was sought to change this trend and fill this critical care gap.

Relying on the accessibility of community pharmacies, the Foundation research team examined the impact of increased access to statin therapy, as well as medication adherence support, for diabetes patients. For the one in 10 Americans who suffer from diabetes, shortening the distance between patient and evidence-based care may be transformative.

Transitions in care can also lead to care gaps. When patients are discharged from the hospital, 55% are at risk of a medication mishap.⁴ Serious mishaps put patients back in the hospital. For those with comorbidities or multiple medications, the risks rise exponentially.

However, engaging healthcare providers, linked by community pharmacies, more collaboratively in the move from hospital to home markedly improves outcomes and decreases hospital readmission rates. It may seem simple, but sometimes the high-impact solutions are.



³ <https://www.heart.org/en/health-topics/diabetes/diabetes-complications-and-risks/cardiovascular-disease--diabetes>

⁴ <https://www.who.int/patientsafety/medication-safety/TransitionOfCare.pdf?ua=1>

STRONGER TOGETHER: PARTNERING ADDS IMPACT

Collaboration can be especially powerful in public health initiatives. It brings great minds with vast expertise together to tackle problems from various points of view. From screening for substance use disorder to linking patients to needed tuberculosis care, our research partners are the heart of the Foundation and keep the wheels of innovation moving.

Screening for Substance Use Disorder (SUD) at local pharmacies through the Foundation's Project Lifeline is steeped in an evidence-based approach and serves as a vital access point to help and support for so many. An outstretched hand can have a tremendous impact on those suffering in silence who may not know where to turn or fear stigma. If misuse is identified, interventions and care support are privately offered on the spot, and patients are efficiently linked to public health resources for follow-up treatment.

Point-of-care testing is another page in our portfolio that hinges on academic and public health partnerships. Beyond the obvious efficiencies of time and travel, the Foundation sought insight to how access to point-of-care testing affects health outcomes.

First, we looked at flu and strep. When symptoms strike on weekends, at nighttime and on holidays, many are at a loss for care options, or resort to a trip to the ER. We found that if care is available more locally, public health costs go down, as does time to treatment. This study also showed that 33% of patients who accessed the care model did not have a primary care provider, and also that the model could improve antibiotic use to help combat dangerous and costly antibiotic resistance.

In addition, point-of-care testing may help those at risk of Hepatitis C and HIV, as pharmacies can provide a more accessible and less stigmatized setting for screenings than many health departments or clinics. The CDC joined the NACDS Foundation for this study as we were able to provide access to testing in more than 60 community pharmacies in multiple states.

THE FOUNDATION'S RESEARCH PORTFOLIO IS PROOF POSITIVE OF THE OLD ADAGE: "WHEN YOU WANT TO GO FAR, GO TOGETHER."

Latent tuberculosis infection (LTBI) is curable, but screening and subsequent treatment follow-through rates are low. There are approximately 12M individuals in the U.S. currently carrying LTBI. Researchers in New Mexico, supported by the Foundation, set out to extend essential and quality care to patients in rural and underserved communities.

Dr. Bernadette Jakeman is an expert in latent tuberculosis infection – a condition that comes with no symptoms.

When it became evident that the state of New Mexico (where she works as a professor of pharmacy and a clinician) needed additional LTBI testing, she and the Foundation teamed up. "It's hard to get people to get tested and take their medicine when they don't feel sick," said Jakeman. Untreated, LTBI can turn into active tuberculosis.

Her study has become a model in collaboration with state public health entities. "LTBI testing, traditionally handled by the State, can be considerably improved by [community] partnerships," Jakeman explained.

Jakeman added, "Pharmacists are trained on drug interactions, so delivering treatment in the pharmacy seemed a logical course to take. The pharmacist is right there to address non-serious side effects and identify those that are serious."

When there was a shortage of a certain drug, another benefit was realized. "Pharmacists already had a drug-sharing protocol in place, so overcoming this obstacle was infinitely easier."

"The immediate results of the study were surprising," she said. "We found a higher-than-expected positivity rate...among a low-risk population." This captured individuals who were carrying LTBI unknowingly and got them started on treatment before symptoms appeared.

Jakeman's innovative pilot yielded higher completion rates than the year before and received praise from Mayo Clinic physicians and the broader public health community in a Letter to the Editor of a CDC journal.

"My focus has always been patient care," said Jakeman. "I grew up in Alaska, so I have seen rural communities go without access to health care."

"In the community I serve, I saw great need for this work," Jakeman said.

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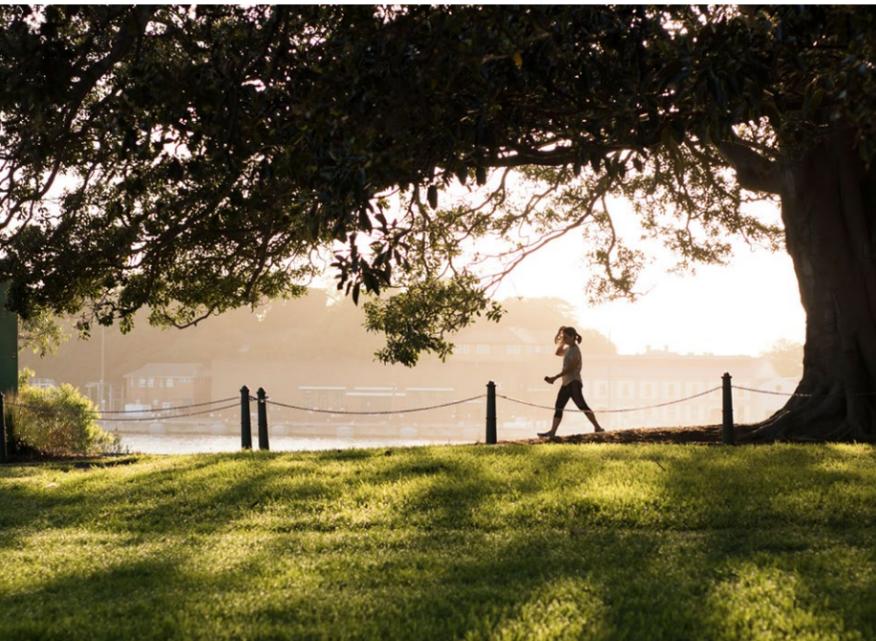
Bernadette Jakeman,
PharmD, PhC, BCPS, AAHIVP

REINVENTING COMMUNITY CARE

With our finger on the pulse of today's healthcare landscape, we must also keep an attentive eye on the future. What care looks like now will shift, grow, and change, and community care models need to adapt. Our strengths are our agility and network of dedicated, innovative professionals with whom we press forward to continuously improve patient care.



**MORE ACCESSIBLE CARE
HELPS PREVENT MINOR
AILMENTS FROM BECOMING
MAJOR AILMENTS.**

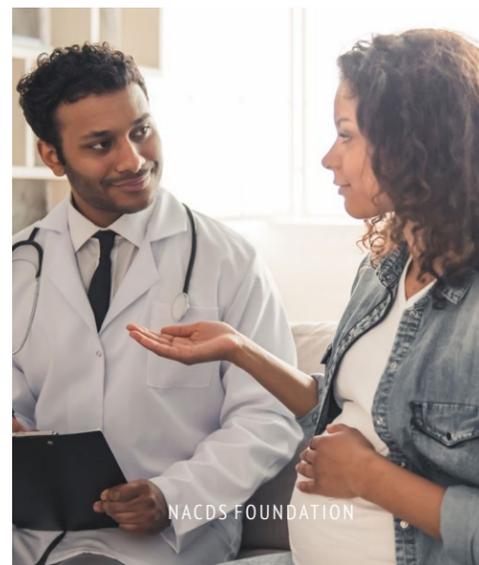


Pharmacogenomics (PGx) examines the role genes play in drug therapy. While exceptionally promising, it isn't widely available to patients yet. Through Foundation research, pharmacists were trained on PGx delivery to help change that.

PGx may also be helpful to tailor treatment for pregnant women with substance use disorders, the focus of another Foundation study. A mother's and neonate's genetics have the potential to tell us how they'll respond to buprenorphine, a common treatment, and could be used to help predict the severity of neonatal abstinence syndrome (NAS) to help improve care from the start.

Minor ailments may be less severe, but play a huge role in public health and quality of life for so many. Consider allergic reactions, cuts, and coughs that send many of us to the ER or a physician's office. If local pharmacies can serve as an additional access point of care for patients for non-emergency care, stress on public health systems and providers may be relieved.

When replicable, patient care models like these – especially in rural areas experiencing barriers to care and in underserved communities with social and economic challenges – have the potential to help address many widespread public health issues.



03

EDUCATION AND LEARNING



“
THE PROGRAM PROVIDED ME WITH A CONCENTRATED RESEARCH MENTORSHIP.
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Cortney M. Mospan, PharmD, BCACP, BCGP, CPP
Wingate University School of Pharmacy

FACULTY SCHOLARS PROGRAM

The Faculty Scholars Program is a great source of pride for the NACDS Foundation. It gives professors at schools and colleges of pharmacy the opportunity to execute a research pilot of their own. The inception of this program was forged by the Foundation after observing the critical need for advanced educational opportunities in academic research.

Through a starter grant and mentoring by experienced academic researchers and educators, scholars can build their patient care concept, conduct a study, analyze results, and draft a manuscript of their findings to share with other healthcare researchers and thought leaders.

Bringing faculty and researchers together is good for the entire research community and will help strengthen the next generation of patient-centered community care. It stimulates ideas, fosters collaboration, and teaches essential skills. This nurtures innovation that benefits communities of all kinds.

IT'S AN HONOR TO BE CHOSEN TO RECEIVE THIS SCHOLARSHIP. IT ALLOWS US TO DO THE WORK WE DO BEST, WHICH IS TO SERVE THE UNDERSERVED.

**Toyin Tofade, MS, PharmD, BCPS, CPCC, FFIP
Dean and Professor,
Howard University College of Pharmacy**

FOUNDATION SCHOLARSHIP PROGRAM

In 1997, the NACDS Foundation began the Annual Scholarship Program. It has expanded in recent years to support scholarship awards that improve community health outcomes, elevate innovative curricula, and foster education in under-represented populations.

Since inception, it has awarded more than \$4 million and distributed more than 45 scholarship awards for patient-centered research and curricular advancement.

Innovation and diversity are at the heart of patient care and pharmacy education. Our scholarship program recognizes that community care must serve and connect with all.



"2019 School of Pharmacy Hooding Ceremony" by PresbyPhotos
<https://flickr.com/photos/presbyphotos/46905247215/>

04

OUTREACH AND HELPING OTHERS



Partnerships like these are celebrated each year at the **NACDS Annual Foundation Dinner**. The Dinner serves as a special stage to showcase stand-out projects that are making a meaningful difference in people's lives and connect this community of innovative, patient-focused collaborators.

One of the highlights of the evening is the presentation of the **Excellence in Patient Care Award**, recognizing those whose contributions have been particularly remarkable for community health.

The Foundation is fortunate to have forged a nationwide network of support from healthcare champions. Collectively, we create a family of visionaries committed to turning communities into hubs where better health happens.

One such partner is the **March of Dimes**, the premier nonprofit fighting for the health of moms and babies. The March of Dimes shares the Foundation's vision of equitable and accessible care.

Together, the Foundation and the March of Dimes worked to remind communities about the importance of immunizations and help combat vaccine hesitancy. Our seasonal flu shot awareness radio campaign expanded to encompass COVID-19 vaccinations to encourage Americans to get vaccinated as a vital public health measure. The global pandemic underscored the importance and timeliness of this critical population health effort.



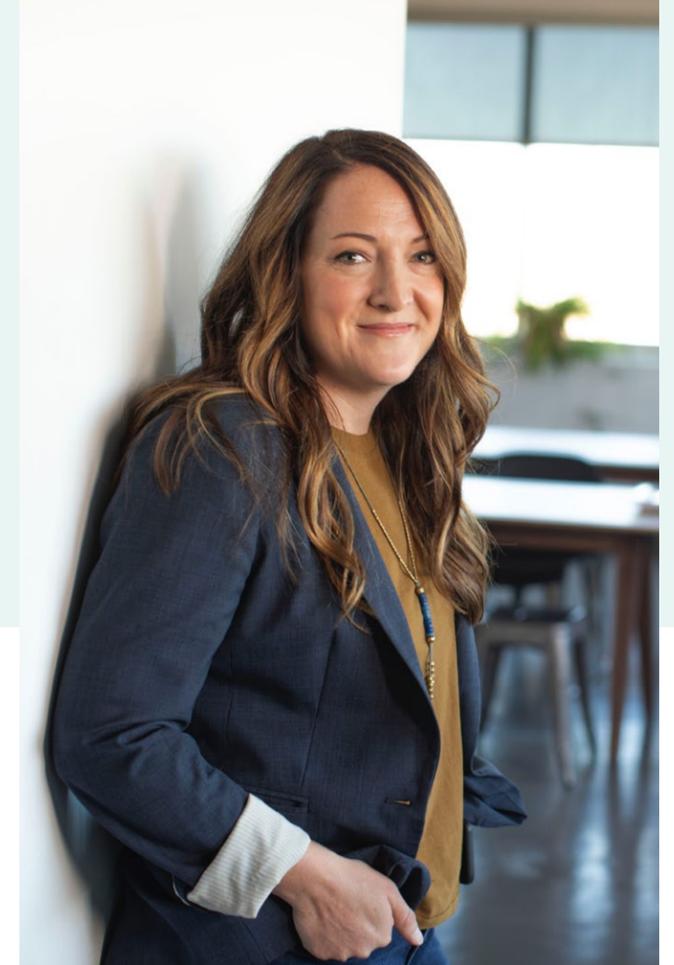
Puerto Rico's **Zika virus** outbreak is another prime example of the Foundation springing into action to respond to an important public health need. In collaboration with Puerto Rico's government, we spearheaded an educational initiative encouraging women to ask their healthcare professionals about ways to protect themselves and their unborn children from the effects of Zika.



05

WHERE WE'RE GOING

The Foundation has a steadfast commitment to resolve unmet patient needs and close critical care gaps. Addressing public health problems is our purpose. But our work transcends data sets and research reports. Each patient is a person with a family, a community, a job, a life story. This makes the work we do as personal as it is professional.



The forecast for the future of the Foundation includes more of what we do best: drive collaboration, promote care coordination, and spearhead research that advances population health.

We will remain true to our identity as an innovative research organization, an incubator of ideas. We will ardently illuminate and respond to society's most critical public health needs.

And we will continue to support meaningful studies, led by accomplished researchers, with the sole purpose of impacting lives forever and for the better.

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Cultivating innovation in care.

**A HEALTHY POPULATION
IS A HAPPY, PRODUCTIVE,
FULFILLED ONE.**



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