



ARBOR RESEARCH
COLLABORATIVE
FOR HEALTH



Annual Report 2020

Improving patient lives through research and data analysis



ARBOR RESEARCH
COLLABORATIVE
FOR HEALTH

Global research on a human scale



Arbor Research Collaborative for Health is committed to improving patient care through research that shapes medical policies and practice. In particular, Arbor Research conducts health outcomes research on chronic disease and end-stage organ failure, with expertise in biostatistical analysis, clinical practice, health economics, public policy, database management and integration, and project coordination. Through research projects that are national and global in scope, Arbor Research's scientific collaborations provide valuable and timely information to the worldwide health care community.



Robert M. Merion, MD, FACS,
President and CEO

Dear Friends,

For over 20 years, Arbor Research Collaborative for Health has been passionately dedicated to improving patient outcomes and reducing the burden of chronic disease. Each day, our professionals are driven by a strong sense of commitment to our mission of making a difference in patients' lives through strong research that informs medical practices and policies. In the following pages, we reflect on a select number of those contributions from our talented team as recognized in the past year.

The fall of 2019 ushered in some new and important changes. In September, we moved into our brand new beautiful headquarters in Ann Arbor Township. This new space will allow for future expansion in our response to contemporary clinical research needs and understanding what matters most to patients. Additionally, our Board of Directors elected Marianne Udow-Phillips as its new Chair. I share the confidence of our Board of Directors and am privileged to work in partnership with our Board under Marianne's leadership to lead Arbor Research into an ever brighter future.

The culture of excellence demonstrated by our dedicated team shines in our diverse profile and our ability to conduct reliable research in a variety of clinical fields. Since 1997, Arbor Research has focused on seeking opportunities to improve the delivery of health care to make a difference in reducing the burden of chronic disease. As we continue to grow and expand upon our foundation and mission, my pride for this organization soars. I am honored to be among this group of professionals dedicated to providing the best information to improve patient care and outcomes.



Marianne Udow-Phillips, MHA
Chair, Board of Directors

Since 2016, I have been proud to support Arbor Research as a Board member and more recently as its Vice Chair. I'm pleased to continue to guide the health of the organization in my new role as Board Chair. I'd like to take this opportunity to express deep gratitude to Mark Barr for his years of Board leadership, and on behalf of the entire Board we are grateful that Mark will maintain his position as a Board Director.

The ability to focus on what Arbor Research does best – thoughtful research that improves patient outcomes – will continue to define us in the future, guided by the Board and the work of the dedicated, talented team of professionals at Arbor Research.

This is an exciting time for Arbor Research as together we evaluate the exciting research opportunities that are ahead of us. As we reflect on the accomplishments of the past year and our new headquarters, I look forward to identifying new opportunities, tackling new challenges, and building on the strong and synergistic relationship between the Board of Directors and staff of Arbor Research!



ABOUT US



Collecting and Understanding Data

The professionals at Arbor Research recognize opportunities to expound upon valuable data sources to use in real-world situations that improve patient outcomes. We seek opportunities to understand and apply raw data to policy, practice, and patient outcomes.

Our mission is built on a solid foundation of expertise, quality, and care



Expert Analysis

Arbor Research's experts are proficient and passionate in our research. We collaborate with a variety of talent and recognize and respect how others apply their own skills and experience to provide the most efficient and accurate results for the health care community.



A Spectrum of Health-Related Projects

Research is the heart of what we do. We are constantly pivoting our approach to be responsive to patients and the health care community. The thoughtful study architecture of each project provides intelligent implementation, evaluation, and results.

A NEW HOME FOR ARBOR RESEARCH



Arbor Research broke ground in May of 2018 on our new building. By September of 2019, the moving trucks made their way across downtown Ann Arbor to Earhart Road where Arbor Research would officially be housed.

Designed by Hobbs+Black, the new corporate headquarters of Arbor Research is situated on 16.4 acres overlooking the rolling fields of Domino's Farms and backing to a 90 acre preserve lined with walking trails and abundant wildlife.

188

Parking Spaces



528



Network Drops

219



Exterior Windows

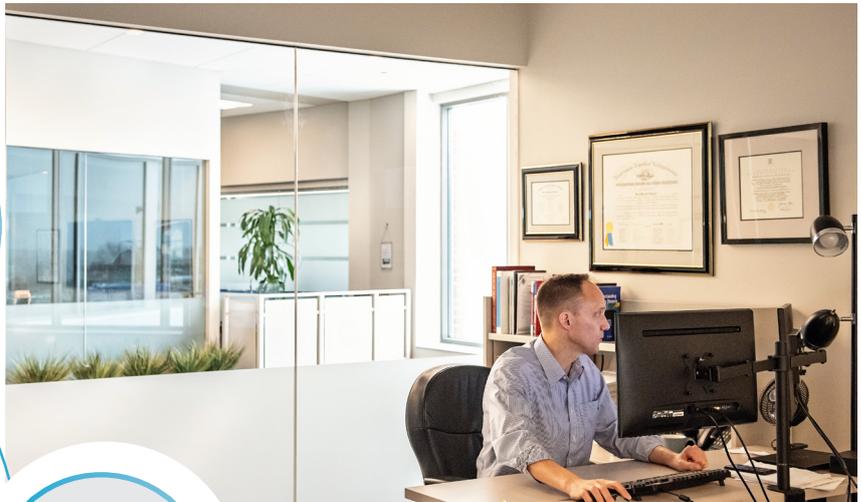




When considering the design, Arbor Research and Hobbs+Black of Ann Arbor solicited employee feedback using interactive posters, surveys, and routine progress briefings. Ceiling to floor windows and glass walled offices were designed to maximize natural light providing daylight to each employee work space. The building is 49,500 square feet with the option for 40,500 additional square feet of expansion and offers a variety of work space options. The open floor plan provides employees with opportunities for both quiet and collaborative work spaces. The new space includes 11 conference rooms, a Board Room, and a Classroom/Training room.

Open Spaces

Natural light is abundant and aesthetically merges with the natural setting of the beautiful property.



Gather

The new space offers a variety of areas to collaborate and concentrate.



Grow

An additional 40,500 square feet is reserved for future expansion and collaboration.

A New RESEARCH HEADQUARTERS

The Pancreatic Cancer Early Detection (PRECEDE) Consortium

Arbor Research Collaborative for Health is proud to partner with the Perlmutter Cancer Center of New York University to serve as the Scientific and Data Coordinating Center (SDCC) of an international, multi-institutional collaborative effort to improve survival for pancreatic cancer by improving early detection, screening, risk modeling, and prevention for those with a heritable risk for pancreatic cancer. The PRECEDE Consortium is the largest effort of its kind, and utilizes a novel model of collaboration and data sharing. The PRECEDE Consortium is funded by Project Purple, a non-profit organization created to raise awareness, support affected patients and families, and fund research efforts to defeat pancreatic cancer. John J. Graff of Arbor Research Collaborative for Health serves as the SDCC Program Director and the Arbor Research Principal Investigator (PI) for the PRECEDE Consortium.

"We're excited about collaborating with the PRECEDE Consortium and the valuable research we can provide the health care community and policy makers", Graff says. "Arbor Research has strong experience in managing data coordinating centers and providing expert analysis and data-driven support for a number of diseases. Working to achieve early detection of pancreatic cancer and improve patient outcomes is very exciting to our team."

PRECEDE

Pancreatic Cancer Early Detection Consortium



The annual PRECEDE Consortium meeting, New York, NY. December 2019.



Study Design:

The PRECEDE Consortium is an observational longitudinal prospective cohort study, with serial biosample collection (every 6-12 months) and acquisition of standardized clinical and imaging data in defined high-risk groups.

Specific Aims:

- To standardize the collection of demographic, clinical, and imaging data, and biosamples for a large high-risk familial pancreatic cancer cohort at consortium centers worldwide;
- To generate proof of the importance of high-risk surveillance programs for pancreatic cancer for both clinicians and health authorities through longitudinal follow-up of clinical outcomes;
- To establish evidence-based practice standards for genetic testing and surveillance in individuals with a family history of pancreatic cancer and/or carriers of variants in genes linked to pancreatic cancer risk;
- To study modifiers of risk, including genetic and environmental factors, evaluate disease penetrance, and quantify cancer risk in families with pancreatic cancer and/or carriers of variants in genes linked to pancreatic cancer risk;
- To identify new pancreatic cancer susceptibility genes;
- To develop comprehensive risk models to estimate pancreatic cancer risk and guide clinical decision making;
- To develop and/or validate biomarker assays that detect early stage pancreatic cancer; and
- To enhance communication tools for patients and health care providers.



John J. Graff, SDCC Program Director and Arbor Research PI for the PRECEDE Consortium.



Melissa Fava, Senior Project Manager for the PRECEDE Consortium.

"Working to achieve early detection of pancreatic cancer and improve patient outcomes is very exciting to our team."



2019 Research

Celebrating Excellence



Margaret E. Helmuth

Arbor Research's Margaret E. Helmuth and colleagues examined the potential savings of two of the most commonly prescribed generic immunosuppressants: tacrolimus and mycophenolate. This publication received the 2019 Editor's Pick recognition from the *Clinical Journal of the American Society of Nephrology*. Organ transplantation comes with life-long costs of critical immunosuppressant medications to prevent rejection. These medications are essential in transplant recipients and can be expensive. Medicare provides coverage to kidney transplant recipients for these critical drugs for up to 3 years; however, many transplant recipients find it challenging to manage the out-of-pocket costs when that coverage expires. This expense leaves many low-income patients facing difficult financial decisions when deciding whether to refill these prescriptions, and often results in poor health and transplant rejection.

Substituting less expensive generic medications is a possible solution to helping these patients affordably access these lifesaving medications and may ultimately improve adherence. Generic substitutes were not available until 2009. Helmuth et al. studied generic immunosuppressive medication use in the United States for recipients of kidney, liver, and heart transplants between 2008 and 2013, and demonstrated financial relief. Between 2008 and 2013, out-of-pocket payments declined by 63%-79% on average for patients not receiving the low-income subsidy (a savings of \$1,000 to \$1,750). Additionally, costs for Medicare Part D plans decreased by 48%-67%, a \$1,500 to \$4,500 savings per patient, per year.

63%-79% Savings

Out-of-pocket payments declined for patients,
a savings of \$1,000 to \$1,750.

\$1,500-\$4,500 Savings

Medicare Part D plans decreased by
48%-67%, per patient, per year.

MISSED HEMODIALYSIS TREATMENTS: INTERNATIONAL VARIATION, PREDICTORS, AND OUTCOMES IN THE DIALYSIS OUTCOMES AND PRACTICE PATTERNS STUDY



Dr. Ron Pisoni and Dr. Issa Al Salmi

Authors Receive the 2019 AJKD Editors' Choice Award

Dr. Issa Al Salmi et al., were awarded the prestigious 2019 Editors' Choice award from the *American Journal of Kidney Diseases* for research on outcomes of missed hemodialysis sessions. Providing quality care to hemodialysis patients can be challenging when patients miss one or more of their thrice-weekly scheduled hemodialysis treatments. The authors sought to find how missing hemodialysis treatments differed among countries in relation to patient outcomes. Findings from this study encourage further examination of patient-related and practice-related reasons for missed treatment rates in some facilities and countries. This gives insight into approaches that could lead to greater adherence to treatment and other associated benefits to this therapy.

Commitment to Quality Research

Ingenuity in Study Design

In 2019, our collaborator on the National Living Donor Assistance Center (NLDAC) project, Amit Mathur, MD, transplant surgeon at the Mayo Clinic of Arizona, received the prestigious 2020 Vanguard Award from the American Society of Transplant Surgeons (ASTS), in recognition of his recent publication in *Clinical Transplantation*, “Return on investment for financial assistance for living kidney donors in the United States”.

This work expands upon the research efforts of the NLDAC to support out-of-pocket expenses for organ donors, resulting in dramatic federal savings by transitioning patients off of dialysis.



Dr. Amit Mathur



Dr. Abigail Smith

**Top
Downloaded
Publication
2019**

Dr. Roberto Pecoits-Filho and colleagues’ paper from the Chronic Kidney Disease Outcomes and Practice Patterns Study (CKDopps) titled “Prescription of renin-angiotensin-aldosterone system inhibitors (RAASi) and its determinants in patients with advanced CKD under nephrologist care” received recognition for being among the top 10% most downloaded papers of 2019 in the *Journal of Clinical Hypertension*.

This paper explored RAASi prescription patterns in 5870 patients in Brazil, Germany, France, and the United States. RAASi is commonly recommended for CKD patients. However, the CKDopps researchers found it to be least commonly prescribed in the United States. Prescription patterns varied by country, demographics, and clinical characteristics, but were frequently used in patients at higher risk of hyperkalemia.

Implementing Medicare Value-Based Purchasing for Dialysis Facilities

Federal government recognizes Arbor Research with contract renewal through 2024

In the spring of 2019, the Centers for Medicare & Medicaid Services (CMS) awarded Arbor Research's Health Policy and Practice Program a five year contract to continue support of the Medicare End-Stage Renal Disease Quality Incentive Program (ESRD QIP). This award was made possible through Arbor Research's participation on the CMS Measure and Instrument Development and Support (MIDS) program. Arbor Research has participated as a MIDS contractor since 2008, and in 2018 was recognized with a MIDS renewal through 2028. This is Arbor Research's seventh task order contract under the MIDS program and first task order since the MIDS renewal.

The Health Policy and Practice Program at Arbor Research has been an important part of the ESRD QIP since Congress passed it into law in 2008. The ESRD QIP was the first nationally-implemented Medicare value-based purchasing program. Dialysis facilities that do not meet established quality measure standards face up to 2% reductions in Medicare reimbursement. Arbor Research's role includes data analysis to support policy-making, validation of quality measure calculation and scoring, and help desk support. The project serves as a strong foundation to support other federal health care quality measurement initiatives managed under the MIDS program.

This contract renewal continues Arbor Research's work focusing on three areas:



Data analysis that supports policy-making

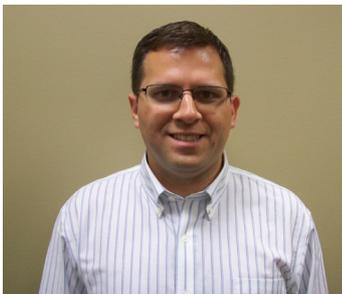


Validation of quality measure calculation and scoring



Help desk support for facility-specific measure and scoring questions

New Investigator Joins Growing Health Policy and Practice Program



Dr. Eric Lammers

Arbor Research welcomed Dr. Eric Lammers to the research team in 2019. Dr. Lammers is a health services researcher studying health care delivery systems and innovations, with emphasis on health information technology (IT). He has worked on and led quantitative studies of the impact of health IT and other innovations on utilization, costs, and quality of care. His evaluation research spans a variety of innovations in care delivery, including studies of emergency department care management, telehealth to enable care access in rural areas, behavioral health care interventions for children, and health information exchange through electronic health records. He helped to lead the impact evaluation of the American Recovery and Reinvestment Act programs, and to stimulate adoption and meaningful use of health IT.

Dr. Lammers specializes in rigorous quantitative research methods, integrates mixed-methods analyses, and has extensive experience with data from national surveys of health care providers and Medicare & Medicaid claims. He received his PhD in Health Services Organization and Policy, with a concentration in economics, from the University of Michigan in 2012.

The Center for Medicare & Medicaid Innovation and Arbor Research

Partnership Continues on Research, Measurement, Assessment, Design and Analysis (RMADA2)

The Center for Medicare & Medicaid Innovation (CMMI) recently renewed a partnership with Arbor Research's Health Policy and Practice Program through 2025. The second Research, Measurement, Assessment, Design, and Analysis (RMADA2) program began in the spring of 2020. Through this program, Arbor Research is one of 20 organizations nationally eligible to compete for contracts that will support testing innovative models of health care delivery and payment.

These projects involve a wide range of activities related to the design, implementation, and evaluation of new care delivery and payment models and demonstration projects. "We are excited to be able to compete for the research opportunities that the RMADA2 program will continue to provide," says Jeffrey Pearson, Health Policy & Practice Program Director at Arbor Research. The RMADA2 renewal builds on Arbor Research's current contract to evaluate the Home Health Value Based Purchasing (HHVBP) Model, which was originally awarded under the first RMADA program in 2015, and continues through 2024.

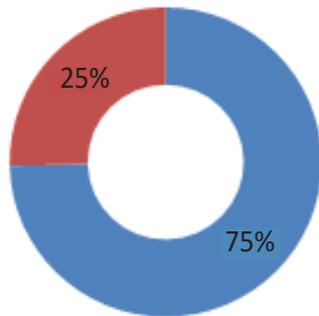


From left to right, Dr. Akinlolu Ojo, Dr. Keith McCullough, Dr. Marc Turenne, and Dr. Robert M. Merion.

"Arbor Research has established important partnerships with several other organizations and investigators that will be supporting a range of activities required under the RMADA," says Health Policy & Practice Program Scientific Director, Marc Turenne. These partners include the Center for Health Research and Transformation (CHRT); the University of Michigan Mixed Methods Program; other clinical and scientific investigators at the University of Michigan; Insight Policy Research; MPRO; and SPH Analytics. Dr. Turenne adds, "We're looking forward to these collaborations and the insightful research that these partnerships will provide CMMI and the health care community."

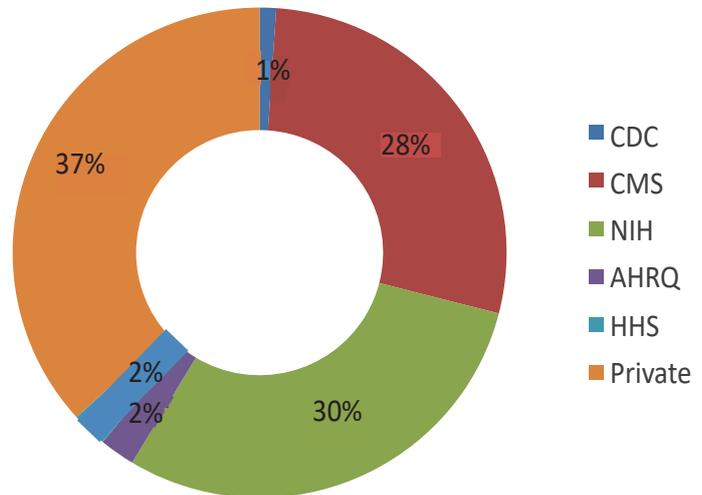
Annual Statistics

Expenses 2019



- Total Facilities and Administration
- Total Program Services-Research and Analysis

Funding Sources



- CDC
- CMS
- NIH
- AHRQ
- HHS
- Private

Statements of Activities

REVENUES

	2018	2019
Contributions	2,034,051	189,805
Grants and contracts	17,542,416	17,874,872
Net investment earnings (loss)	(222,546)	565,765
Other income	8,527	(526,350)
Total revenues	19,362,448	18,104,092

EXPENSES

Total program services-research and analysis	19,581,208	13,920,140
Total facilities and administration	3,046,852	4,736,566
Total expenses	24,016,622	18,656,706

Change in net assets

Change in net assets	(4,654,174)	(552,614)
Net assets, beginning of year	13,356,589	8,702,415
Net assets, end of year	8,702,415	8,149,801

Statements of Financial Position

ASSETS

Cash and investments	3,838,119	3,705,110
Grants and contract receivables	3,847,707	4,293,121
Prepaid expenses and other assets	872,039	1,078,142
Property & equipment, net	7,072,825	15,075,413
Total assets	15,630,690	24,151,786

LIABILITIES and NET ASSETS

LIABILITIES

Accounts payable & accrued expenses	3,137,990	2,678,131
Construction payable	3,296,828	11,139,984
Deferred revenue	493,457	2,183,870
Total liabilities	6,928,275	16,001,985

NET ASSETS

Total net assets	8,702,415	8,149,801
Total liabilities and net assets	15,630,690	24,151,786



ARBOR RESEARCH COLLABORATIVE FOR HEALTH BOARD OF DIRECTORS

Marianne Udow-Phillips, MHA, Chair, Executive Director, Center for Healthcare Research and Transformation

Akinlolu Ojo, MD, MPH, PhD, MBA, Vice Chair, Executive Dean, University of Kansas School of Medicine

Robert M. Merion, MD, FACS, President, President/CEO, Arbor Research Collaborative for Health

Larry Warren, MS, Secretary, Director, Trinity Health

Richard Pietroski, MS, Treasurer, President, United Therapeutics, Lung Bioengineering

Mark L. Barr, MD, Director, Associate Professor of Surgery, University of Southern California

Joceyln DeWitt, PhD, Director, Vice President, Chief Information Officer, University of Wisconsin

Paula Lantz, PhD, Director, Associate Dean for Academic Affairs, University of Michigan

David Morlock, MBA, Director, Managing Director, Cain Brothers

Judith L. Walker, BA, Director, Consultant, Accounting and Finance

Karen Crow, BS, CPA, CGMA, Assistant Treasurer, Vice President, Finance, Arbor Research Collaborative for Health

Colette Cloyd, Assistant Secretary, Executive Coordinator to the President, Arbor Research Collaborative for Health



**ARBOR RESEARCH
COLLABORATIVE
FOR HEALTH**

3700 Earhart Road
Ann Arbor, MI 48105, USA
Tel: +1 (734) 665-4108
Fax: +1 (734) 665-2103
Email: Communications@ArborResearch.org
[@ArborResHealth](https://twitter.com/ArborResHealth)
www.ArborResearch.org