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2011: FOCUS ON GROWTH



ARBOR RESEARCH  
COLLABORATIVE  
FOR HEALTH

## Improving Patient Lives Through Research and Data Analysis

The mission of Arbor Research Collaborative for Health is to provide an empirical basis for improving the lives of patients by improving the practice of health care. We achieve this mission through interdisciplinary expertise in biostatistical analysis, clinical practice, management and integration of large data sets, economics, and public policy.

We collaborate closely with faculty and researchers from other major research organizations around the world on studies in medicine, epidemiology, and public health. Our research affects clinical practice, policy development, and medical payment systems. Since 1997, we have engaged in national and international health outcomes research related to chronic disease and end-stage organ failure.

Arbor Research strives to maintain a challenging, stimulating, and supportive environment where people enjoy their work and respect their colleagues. We do this by pursuing important and interesting research projects, aiming to provide analysis that is satisfying because it is both timely and sophisticated, resulting in saving patient lives.

Arbor Research is a not-for-profit research organization based in Ann Arbor, Michigan.



Dear Friends,

New people, new projects, and a new home. It's been an exciting year!

As an internationally renowned health research institution, Arbor Research is constantly exploring fresh opportunities to fulfill our mission to improve patient lives through rigorous research. Now in our 16th year, our projects reach to 20 countries on five continents.

In 2011, we've added 17 staff members to our outstanding team, which now numbers 75. To learn about three of our investigators, please see a trio of profiles beginning on page 11. Our board of directors has expanded to increase the breadth and depth of expertise. Please read about Bill McClellan, Rich Pietroski, and Barry Straube, our three newest board members, on page 16.

On April 29, 2011, we said goodbye to our home of 15 years and moved five blocks east to the former *Ann Arbor News* building, now owned by the University of Michigan Credit Union. The photos on page 10 show that our new space is conducive to collaboration and growth.

Sadly, we also bade farewell to a longtime friend, colleague, and former Arbor Research board member. John Newmann, who passed away on August 12, 2011, was a founding member of our board and served with vigor and enthusiasm for 14 years. To honor John's dedication to patients with kidney failure, we've established the John Newmann Fund to support initiatives integrating our research into day-to-day medical and health policy practice. The fund was launched under the leadership of our new development director, Jim McIntyre. Jim's mandate is to identify resources that will support project development and dissemination in an increasingly challenging research environment. For more details, please see page 16.

Our research project areas have been active and successful this year. The **Dialysis Outcomes and Practice Patterns Study** (DOPPS) team now has studies underway or planned in 19 countries. In addition to a new project in Saudi Arabia (the first of several countries in the Gulf Cooperation Council), work on China DOPPS is progressing (page 9). The DOPPS Practice Monitor (DPM) continues to attract wide interest as an early reporting system for the Medicare End-Stage Renal Disease Prospective Payment System (pages 4-5). Funding has also been received for an expansion to study chronic kidney disease (CKD) in China to be linked to a recently initiated CKDopps study in France and Germany.

In a major strategic expansion beyond its foundation in chronic kidney failure, our **Health Policy and Practice Projects** (HP3) team was recently awarded a contract to develop a prospective payment system for Federally Qualified Health Centers that provide a full range of medical services and target underserved populations. Under the recent health care reform legislation, we expect to see similar opportunities in a range of health care payment areas.

The **Transplant Projects** team continues to provide programming and analytical resources for the data coordinating centers for two NIH-funded multicenter observational studies in organ transplantation. In addition, several new transplant-related research projects have been funded in 2011. This area has been targeted for growth through pipeline and proposal development resources.

Our financial position is extremely strong in an ever-tightening research funding environment. While \$146 million in funding over the past 16 years is commendable, the real measure of our success is research that benefits patients and supports sound health care policy.

Yours sincerely,

A handwritten signature in black ink that reads "Bob".

Robert M. Merion, MD, FACS

President, Arbor Research Collaborative for Health

# SUPPORTING Quality Measurement DEVELOPMENT FOR MEDICARE

## *Can patient care be improved while costs are kept under control?*

To answer this important question, Arbor Research worked closely with the Centers for Medicare & Medicaid Services (CMS) to develop a set of new quality measures for dialysis facilities.

Once in place, these measures will provide practice benchmarks that encourage facilities to manage costs through standardized care. The measures are part of the CMS Quality Incentive Program (QIP), implemented in 2011. The 30-day preview period was held this summer for the QIP Performance Scores Reports. The CMS QIP will determine whether payment reductions will apply to providers beginning on January 1, 2012.

Six clinical technical expert panels (TEPs) were assembled to provide expertise for the development and implementation of the dialysis quality measures. A public call for nominations generated a long list of experts, including nephrologists, nurses, quality directors, patients, advocates, and scientists. Arbor Research worked closely with CMS in the review and selection of experts from among the nominees, arranged panel logistics, and worked with CMS to determine agendas for the TEPs. Arbor Research undertook several key activities and prepared a comprehensive set of materials for CMS and each of the TEPs. This included conducting evidence-based literature reviews and performing analyses to identify existing gaps in quality of care and the potential impact of the proposed measures for improving the quality of care. The panels were inclusive of a wide range of expertise and perspectives, covering end-stage renal disease, performance measurement, quality improvement, purchaser perspectives, consumer perspectives, and health care disparities.

The panels met in March 2010 in Baltimore, Maryland. Clinicians and analysts, from both Arbor Research and the

University of Michigan Kidney Epidemiology and Cost Center, worked together to moderate and facilitate the expert panels toward achieving CMS goals for development of new measures in the candidate areas. The panels provided guidance in the development of new quality measures in specific clinical areas, as well as in defining target values and outcomes to be achieved for specific measures.

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**Throughout the process of quality measure development, Arbor Research provided expert guidance and analysis to create the best standards of care for dialysis patients.**

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Each panel discussed and deliberated candidate measures and proposed specifications, taking into account data availability, current guidelines, and recent changes in practice. Approximately 44 measures were originally proposed by the respective clinical expert panels. These included measures in the areas of infection, mineral bone disease, and quality of care specific to the ESRD pediatric population.

Following the clinical panels, a data TEP was convened in April 2010 in Baltimore to review available data sources, timeliness of data collection, accuracy of data, burden of data collection, and to identify any implementation problems. The data panel also reviewed data elements for a measure of hospital admissions.



Subsequent to both TEP meetings, Arbor Research summarized and reconciled recommendations of both the clinical and data expert panels. The panels were asked to be proactive in identifying data elements necessary for robust quality measures, even if they were not included in current data collection vehicles, such as CROWNWeb. Because most of the measures will use data collected by CROWNWeb, a new data collection system to be used by all Medicare-certified facilities for capturing clinical data, Arbor Research worked with CMS to quickly expand the current list, allowing for data collection of new elements in CROWNWeb.

Expert understanding of the data elements ensured that the most appropriate measures would be possible. Finalized recommendations were presented to CMS, accompanied by detailed reports on the final proposed measures. The National Quality Forum (NQF) reviewed the proposed measures and provided recommendations for endorsement after posting them for public comment. Federal legislation

recommends that CMS use NQF-endorsed measures whenever possible. Nine measures received final approval and were endorsed by the NQF in late summer 2011.

Throughout the process of quality measure development, Arbor Research provided expert guidance and analysis to create the best standards of care for dialysis patients. ■

### Quality Measures Cover Six Clinical Areas:

- Anemia Management/Iron Targets
- Mineral and Bone Disorder
- Hemodialysis Vascular Access Related Infections
- Pediatric Hemodialysis Adequacy
- Pediatric Anemia Management
- Fluid Weight Management

DOPPS Practice Monitor assesses

# a changing landscape



Since its launch in November 2010, the DOPPS Practice Monitor (DPM) has provided objective surveillance of clinical trends as dialysis facilities adjust to federally mandated changes in reimbursement.

Since its launch in November 2010, the DOPPS Practice Monitor (DPM) has provided objective surveillance of clinical trends as dialysis facilities adjust to federally mandated changes in reimbursement. The DPM website ([www.dopps.org/DPM/](http://www.dopps.org/DPM/)) is a project of the Dialysis Outcomes and Practice Patterns Study (DOPPS) and was developed in response to the 2011 implementation of the End-Stage Renal Disease Prospective Payment System (PPS) by the Centers for Medicare & Medicaid Services (CMS).

Unlike earlier systems that consisted of multiple fees, the PPS provides one payment to compensate a bundle of all renal dialysis services, including drugs and diagnostic laboratory tests. CMS hopes to control escalating dialysis costs through an approach that combines a single payment with financial incentives for providing quality care.

Many hypothesize, however, that the PPS may create incentives that affect levels and types of service and thus patient care and outcomes. DPM reports, which are public, are designed to help researchers and clinicians identify emerging shifts in renal care and, ultimately, understand the effect of the new bundle. The US Government Accountability Office (GAO) has called for the examination of quality of and access to care during PPS implementation, as certain beneficiaries, including blacks and rural residents, may be vulnerable to adverse change because of above-average dialysis costs.

The DPM is the only website of its kind available to provide this level of assessment. It collects data from 140 representative US dialysis facilities, providing updated information every four months, with only a three-to-four month lag between data collection and posting. The DPM website shows data and statistics related to demographics, comorbidities, anemia management, nutrition-related practices, quality of life, and vascular access use that are published in a user-friendly web-based format. This report, which features more than 1,300 figures and tables, provides comparisons and trends over time in dialysis practice areas—not only for the United States as a whole, but also according to different facility types, including clinics owned by small and large dialysis organizations, hospital and free-standing clinics, and those located in rural and urban areas.



An executive summary is provided with each DPM update, highlighting key findings for the community; slides are also available for download, as well as information about methodology and statistical approaches.

Data from the August 2011 data release identified a sharp rise in the percentage of patients with very high parathyroid hormone (PTH) values (defined as PTH > 600 pg/ml), especially among black patients (from 15% to 26%) versus a smaller increase in non-blacks (from 9% to 12%). No significant changes were seen in other practice areas (vascular access use, nutrition management, dialysis dose).

Support for the DPM is provided by Amgen. The DOPPS is coordinated by Arbor Research Collaborative for Health and is supported by scientific research grants from Amgen (since 1996), Kyowa Hakko Kirin (since 1999, in Japan), Genzyme (since 2009), Abbott (since 2009), and Baxter (since 2011), without restrictions on publications. ■

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**This report, which features more than 1,300 figures and tables, provides comparisons and trends over time in dialysis practice areas—not only for the United States as a whole, but also according to different facility types, including clinics owned by small and large dialysis organizations, hospital and freestanding clinics, and those located in rural and urban areas.**

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# ArborLink

## Data management from the ground up; clean analysis starts with agile data management

State-of-the-art research requires state-of-the-art software to be agile and responsive to the specific needs of the project. When staff from the Dialysis Outcomes and Practice Patterns Study (DOPPS) looked for solutions to meet the demands of the extensive longitudinal study, an idea was born. Starting in 2005, Arbor Research created its own data-collection and study-management software: DOPPSLink. By the end of that year, IT staff watched late at night as DOPPSLink collected its first data submitted by Japanese study coordinators in facilities halfway around the world.

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**ArborLink combines features offered by many clinical trials solutions—such as real-time data validation and study management tools—with features needed for international observational studies.**

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As the growing need for this software became apparent, DOPPSLink became ArborLink. Now in use in three major Arbor Research studies, ArborLink has been developed as a multidisciplinary partnership involving teams from data services, applications development, project management, and analytics. The ArborLink software is adaptable at every level to meet the unique needs of each project and takes a comprehensive approach to study management and data collection.

ArborLink combines features offered by many clinical trials solutions – such as real-time data validation and study management tools – with features needed for international observational studies. ArborLink provides unique capabilities of adapting protocols for each translated language

and medical culture, and implementing complex study and sampling methods.

In 2010, ArborLink was adapted for use in the Adult to Adult Living Donor Liver Transplantation Cohort Study (A2ALL). This project is an NIH-sponsored collaborative consortium of nine leading liver transplant centers studying outcomes in donors and recipients of live liver grafts. The process began with Arbor Research developers and data experts sitting down with the A2ALL data coordinating staff to learn more about the needs of the study, including data collection and data management for analysis. The team asked probing questions about the way the study was conducted in participating hospitals and pored over data collection forms. It considered extensive scenarios a patient might go through, in order to anticipate variations in data that might appear. Data analysts ensured that the incoming data were structured in a way that would make it easy for the study investigators and public to interpret.

Extensive collaborative planning sessions gave way to a carefully crafted framework for the software. As the programmers and developers incrementally built the electronic data entry page, the team continued to update the data coordinating center and share working prototypes. The team worked to make sure that data would be entered correctly, reports could be extracted easily, and analysts would be able to interpret the results clearly. When the work was complete, both the developers and the coordinating center staff were proud to have created a product that met the exact needs of the study.

ArborLink is now in use by all of the hospitals participating in the A2ALL study. Since the system went live in February 2011, study coordinators at the nine sites have entered data on over 500 subjects. ■



*The ArborLink solution started as DOPPSLink to target observational studies with specialized needs:*

- *International implementation of protocols, translated for local cultures*
- *Customizable protocols for study subject sampling and sub-studies*
- *Real-time data collection with validation and feedback reports*
- *Implementation in 13 countries and 9 languages*

# PROMISING FINDINGS FOR A FRAGILE PATIENT POPULATION

A federal demonstration project evaluating the effectiveness of managed care in patients with end-stage renal disease (ESRD) found improvements in survival and other areas. These findings are presented in a report called “The Evaluation of the ESRD Disease Management Demonstration,” a study initiated by the Centers for Medicare & Medicaid Services (CMS) and conducted by Arbor Research.

The demonstration, which ran from 2006 to 2008, studied patients enrolled in Medicare Advantage plans offered by three organizations in 19 geographic areas.



**“We believe this study will have significant implications in future care delivery in our field...”**

Sylvia Ramirez, MD, MPH, MBA, lead investigator for the demonstration and vice president of global research and development at Arbor Research

The programs delivered plan-specific coordinated care interventions to beneficiaries with ESRD enrolled in the plans’ respective disease management organizations (identified as DMO A, B, and C in the public report).

Arbor Research analysis found that two dialysis organizations in the demonstration group showed improvements in patient survival. One of the three participating DMOs reduced the fraction of patients hospitalized for cardiovascular-specific and all causes at one and two years after enrollment; however, there was insufficient evidence of a clear reduction in overall hospitalization admission rates (despite marginal improvements in admission rates over time). For all three organizations, skilled nursing facility stays and physician visits were consistently reduced. At least one organization in the demonstration achieved cost savings.

While the research did not reveal meaningful changes in quality of life for patients, high satisfaction was observed among patients who remained in the demonstration.

Sources of high satisfaction had to do with specific care services provided by the organizations. Nurse care manager and medication-related support services had the greatest positive effect on satisfaction, according to patients. Confusion and billing issues were the most commonly cited reasons for disenrollment. Some evidence suggested disenrollment may be related to poor health, with sicker enrollees more likely to drop out of the demonstration.

“We believe this study will have significant implications in future care delivery in our field and that our findings merit consideration in the ongoing assessment of the value of disease management,” said Sylvia Ramirez, MD, MPH, MBA, lead investigator for the demonstration and vice president of global research and development at Arbor Research. “Our evaluation suggests that care coordination may be of value in our fragile and complex patient population, which is at high risk for fragmented care.”

Dr. Ramirez also noted that findings from this evaluation may have an impact on the development of accountable care organizations (ACOs). Such organizations, outlined in the 2010 Affordable Care Act, encourage providers to collectively agree that they are all accountable for the care they deliver, namely the quality, cost, and overall care of Medicare beneficiaries. The ACO model would allow for further testing of care coordination in continuing efforts to improve care delivery for the ESRD population.

Disease management is a system of coordinated health care interventions. The demonstration was designed to examine the effect of disease management on patient and financial outcomes, as well as on other metrics, including processes of care for patients with associated chronic conditions, such as cardiovascular disease and diabetes.

Each DMO also developed and implemented processes of care tailored to a specific patient care focus. Key findings included a small increase in the percentage of patients with an advanced care plan at follow-up visits and improvements in serum albumin and reduced patient mortality with early initiation of oral nutritional supplements. ■



# CHINA

## Expanding our global search for practice variation

Initial work is well under way to add China to the global family of countries studied by the Dialysis Outcomes and Practice Patterns Study (DOPPS). In Shanghai, Beijing, and Guangzhou, hemodialysis is widely used, and these locations offer a rich field of study for investigators searching for best practices among a broad range of patient case-mix characteristics.

“China is a particularly important country to examine,” said Justin Albert, DOPPS project manager, “given the limited published data available on its dialysis practices, as well as the potentially large population of end-stage renal disease (ESRD) patients in the country.”

The number of registered patients with ESRD in China was 41,755 in 1999, which increased to 140,000 by 2009. These figures are striking, given that prior estimates suggest only 10% of the total ESRD population is registered in China.

Through earlier international expansion efforts, the DOPPS currently covers hemodialysis care in 12 countries: nine in North America and Europe, plus Australia, New Zealand, and Japan. The DOPPS-China Pilot Study goal is to develop a model for implementing the DOPPS in China and to prepare a report for publication on the status of dialysis care in China.

Arbor Research began planning for the DOPPS-China Pilot Study in early 2010, along with the close cooperation of preeminent leaders from within the Chinese nephrology community. Arbor Research maintains close ties with nephrology and registry leadership who inform the scientific directions of the study in each of the three cities—Shanghai, Beijing, and Guangzhou—selected to participate.

The DOPPS team has completed one-time, cross-sectional data collection at nearly all 45 participating Chinese study sites. Existing DOPPS questionnaires were translated into Mandarin, then the team used a combination of DOPPSLink, the Arbor Research web-based data collection system, and paper-based questionnaires to gather baseline information. Elements of the pilot study design mirror those of the worldwide DOPPS to ensure consistency with study protocol and comparability of data entry tools. ■

### DOPPS China: Major Progress

- Recruitment of 15 randomly-selected dialysis facilities in each of the three cities
- Onsite training with principal investigators, medical directors, and clinic staff
- Completion of all institutional review board approval processes
- Recruitment of an average of 30 patients at 45 dialysis facilities, totaling approximately 1,350 patients
- Training of a clinical research organization to facilitate conduct of the study in the field
- Submission of three abstracts to the 2011 Chinese Society of Nephrology scientific meeting



## New space inspires collaboration

This spring, Arbor Research moved to its new offices in a historic Albert Kahn-designed building in the heart of downtown Ann Arbor. The newly-renovated space supports our core purpose: collaboration to improve patient care through outstanding medical outcomes research. Our spacious, light-filled offices provide staff the opportunity to discuss current projects in communal meeting areas, gather on the patio to enjoy casual conversations, present new findings in top-notch conference rooms, or use one of the many writeable surfaces to solve research challenges. We are proud to continue our contributions within Ann Arbor's scientific and academic environment and as part of the international research community, and we look forward to our growth in the years ahead.



## Dr. Francesca Tentori

RESEARCH SCIENTIST

With a good suitcase, great mentors, and a five-year development award from the National Institutes of Health (NIH), Dr. Francesca Tentori is making steady progress toward her goal of becoming an independent physician-scientist dedicated to improving the quality of care for patients with chronic kidney disease.

Dr. Tentori, a research scientist at Arbor Research since 2007, won a prestigious NIH K01 award in 2010, in part, by making a convincing case for blending the advantages of working at not one, but two respected research sites. Based in Nashville, TN, she's earning a master of science degree in clinical investigation from Vanderbilt University School of Medicine, where she is an adjunct professor of internal medicine and nephrology. Dr. Tentori also works full time for Arbor Research, combining monthly weeklong visits with daily telecommuting to participate in the research opportunities provided by the DOPPS and the Health Policy and Practice Projects.

As part of her K award, Dr. Tentori works closely with a collaborative team of mentors that includes two experienced Arbor Research investigators, Dr. Bruce Robinson, a nephrologist and vice president of clinical research, and Dr. Robert Merion, a transplant surgeon and the organization's president; Dr. Brenda Gillespie, an assistant professor of statistics from the University of Michigan; and Dr. Alp Ikizler, a nephrologist and professor of medicine at Vanderbilt.

These mentors are advising Dr. Tentori, not only on her formal training in epidemiology and biostatistics, but on the development of a research project that will assess factors associated with the delivery of high-quality care in hemodialysis. An ancillary study to the DOPPS, Dr. Tentori's project aims at identifying the combination of key facility quality indicators associated with best outcomes and incorporating them into a quality index/practice-related risk score. Once these practices are identified, educational efforts could be developed to increase provider awareness and improve patient outcomes.

"In their complementary roles as a not-for-profit research institute and as a major academic center, Arbor



Research and Vanderbilt each provide a broad and unique perspective for my career development and research experience," Dr. Tentori says.

Dr. Tentori is no stranger to travel. Born in Galbiate, a small Italian town on Lake Como, she completed her medical training at the University of Milan in 2003 and has worked extensively in New Mexico, first on the Zuni Kidney Project, an NIH-funded study assessing the prevalence of kidney disease and associated risk factors in an American Indian tribe, and then as the assistant medical director of the Quality Management Department at Dialysis Clinic, Inc. (DCI). In 2007, she moved once again, this time to Nashville, with her new husband, Dean Hiatt, whom she'd met while working at a DCI summer camp for children with ESRD.

"I met Fritz (Port) and Ron (Pisoni) when I was at DCI, and I came to visit the Ann Arbor office a couple of times. Fritz offered me a position with the DOPPS; when I explained I was moving to Tennessee to be with my husband, he offered that I could work long-distance. I feel so lucky he did!" she says. ■

## Friedrich “Fritz” K. Port, MD, MS

SENIOR RESEARCH SCIENTIST

Recognized as a leader in dialysis research, Dr. Friedrich “Fritz” Port, senior investigator and former president of Arbor Research Collaborative for Health and an emeritus professor of medicine (nephrology) and epidemiology at the University of Michigan (UM) schools of medicine and public health, views his accomplishments as results of a team effort.

When Dr. Port became president of Arbor Research in 2002, the nonprofit was known as the University Renal Research and Education Association (URREA). URREA had been founded by Philip J. Held, PhD, also a recognized leader in the field of renal research. Upon Dr. Held’s retirement in 2002, his longtime collaborator Dr. Port was an ideal fit as the nonprofit’s second president. The two had worked together on numerous epidemiological projects, including the US Renal Data System (USRDS) since 1988. Dr. Port had been director of the Michigan Kidney Registry, deputy director of the NIH-funded USRDS Coordinating Center, and co-director of the University of Michigan Kidney Epidemiology and Cost Center (KECC). For most of his more than 35-year career, Dr. Port had worked closely with Robert Wolfe, PhD, a principal investigator for the USRDS, who became vice president of biostatistics for Arbor Research.

Dr. Port initially focused on fostering relationships between URREA and KECC and the UM schools of medicine and public health, soon extending outreach to investigators internationally, as proposed in successful bids on several large contracts for medical outcomes research. Dr. Port contributed to the design and implementation phases of URREA’s program areas including, the Dialysis Outcomes and Practice Patterns Study (DOPPS), the Scientific Registry of Transplant Recipients (SRTR), as well as multiple research

and demonstration contracts with the Centers for Medicare & Medicaid Services (CMS). He markedly expanded the scientific research and its publications in top medical journals.

In 2006, the name change from URREA to Arbor Research Collaborative for Health reflected the organization’s growth. “The new name demonstrated our commitment to be taken seriously, and to go beyond nephrology and emphasize research and collaboration,” Dr. Port said.

With projects aimed at improving patient care and supporting the development of sound public health care policies, that growth included teams of clinicians, biostatisticians, programmers, and other staff. Between 2002 and 2009, staff increased from 26 employees to over 60, as Arbor Research was awarded \$68 million in funding for CMS, SRTR, DOPPS 3 and 4, and additional research projects. With publications in peer-reviewed journals increasing to 20-30 papers per year, Arbor Research investigators were invited to present at annual lectures and symposia worldwide, including the American Society of Nephrology (ASN), the American Transplant Congress (ATC), and the European Renal Association-European Dialysis and Transplant Association (ERA-EDTA) Congress.

Following seven years of tremendous growth, Dr. Port retired and was succeeded by Robert Merion, MD. “I am pleased with our continued growth,” Dr. Port said. “Recent milestones of international expansion of the DOPPS into China and a new focus on chronic kidney disease with the development of CKDopps help advance our goals of improving medical care and patient lives.”

Now a senior investigator with Arbor Research, Dr. Port is a recipient of ASN’s highest honor, the Scribner Award, and the National Kidney Foundation’s (NKF) highest honor, the Seldin Award. He remains dedicated to quantitative analysis of analysis of kidney disease data and to the collaborations that continue to enrich his life’s work. ■





/PROFILE/

## Marc N. Turenne, PhD

RESEARCH SCIENTIST, HEALTH ECONOMICS

In budget-conscious 2011, projecting future Medicare costs has been labeled “ugly math<sup>1</sup>.” As a research scientist in health economics with Arbor Research Collaborative for Health, Dr. Marc Turenne is leading studies that confront the “ugly math” with the goal of improving policies and helping dialysis patients receive access to quality care.

For more than 10 years, Dr. Turenne’s research has involved economic evaluations of chronically ill populations, with recent focus on resource utilization, cost of care, access to care, and clinical practices and outcomes for end-stage renal disease (ESRD) patients. His research involves extensive use of Medicare claims and other data sources from the Centers for Medicare & Medicaid Services (CMS). As a co-investigator on projects funded by CMS, Dr. Turenne has participated in development of Medicare payment policy for dialysis patients. This includes expansion of the Medicare prospective payment system (PPS) for dialysis-related services, which started in January 2011.

Recently awarded an Ro1 grant by the National Institute on Minority Health and Health Disparities, Dr. Turenne is principal investigator on a five-year study evaluating changes in access to care, clinical processes of care, and clinical outcomes for health disparity populations following recent Medicare ESRD payment reform. He was also principal investigator on a pilot project examining disparities in access to higher quality care among dialysis

patients based on their initial selection of a dialysis facility.

Dr. Turenne’s current research includes a related CMS project to establish quality incentive payments for dialysis facilities. In earlier research, he played a major role in the initial development of a reporting system to describe treatment patterns and quality of care at individual dialysis facilities—a system which is now the basis for public reporting of quality measures for dialysis facilities throughout the United States.

“As cost pressures mount, it is increasingly important that we use resources in health care as efficiently as possible,” Dr. Turenne said. “At the same time, we all want access to high quality health care. In balancing these sometimes competing goals, we might think of research and public policy as key parts of our ‘GPS’ in health care; they can help us find our way.”

Currently, Dr. Turenne is expanding his research to inform Medicare payment policy for other vulnerable populations. He is the principal investigator for a new project that will support the development and implementation of a Medicare PPS for federally qualified health centers, which provide primary health care for patients in underserved areas.

Dr. Turenne’s experience, success with project funding, and influential research create a formula for higher quality care affecting patients now and in the future. ■

<sup>1</sup>[http://money.cnn.com/2011/04/07/news/economy/medicare\\_reform/index.htm](http://money.cnn.com/2011/04/07/news/economy/medicare_reform/index.htm)



# 2010 Financial Report

Arbor Research continues to expand its portfolio of research grants and contracts, while maintaining a strong financial position. Arbor Research has diversified its funding stream from one funder at its inception to over 17 current funders. This diversity shows the strength of the organization and the importance of the work of Arbor Research and its employees.

## Assets

	2010	2009
Cash and cash equivalents	\$6,444,527	\$1,411,175
Investments	\$10,220,536	\$9,529,770
Grants and contract receivables	\$1,774,533	\$2,562,324
Prepaid expenses and other assets	\$404,082	\$322,943
<b>Total assets</b>	<b>\$18,843,678</b>	<b>\$13,826,212</b>

## Liabilities and Net Assets

### LIABILITIES

Accounts payable & accrued expenses	\$1,451,577	\$965,193
Deferred revenue	\$5,941,871	\$2,578,779
<b>Total liabilities</b>	<b>\$7,393,448</b>	<b>\$3,543,972</b>

### NET ASSETS

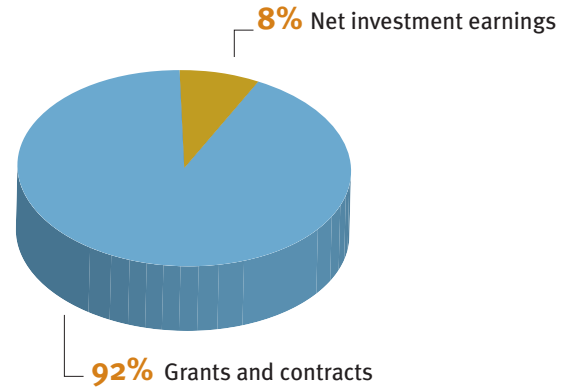
Unrestricted	\$11,450,230	\$10,282,240
<b>Total liabilities and net assets</b>	<b>\$18,843,678</b>	<b>\$13,826,212</b>

Audited 2010 financials. Audit performed by Rehmann.

# 2010 Statement of Activities

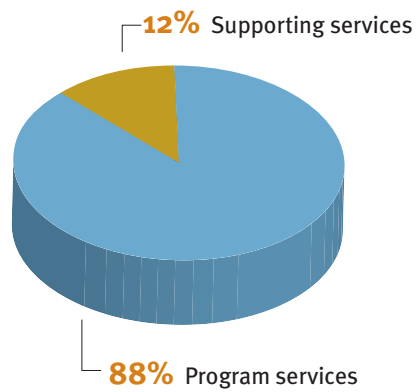
## Revenues

Grants and contracts	\$13,948,711
Net investment earnings	\$1,218,166
<b>Total revenues</b>	<b>\$15,166,877</b>



## Expenses

Program services	\$12,322,407
Supporting services	\$1,676,480
<b>Total expenses</b>	<b>\$13,998,887</b>



# Board of Directors

Arbor Research welcomed three new members to its Board of Directors in 2011: William M. McClellan, MD, MPH; Richard E. Pietroski, MS; and Barry M. Straube, MD.



WILLIAM M. MCCLELLAN, MD, MPH is a professor of medicine and epidemiology at Emory University in Atlanta. Dr. McClellan, who completed medical school at the University of Alabama at Birmingham and

received his master's degree in public health from Emory University, has published extensively on chronic kidney disease epidemiology and health services and outcomes research. His research includes investigation of geographic clustering of pre-hemodialysis care, poverty and outcomes of chronic kidney disease, and studies of arteriovenous fistula use among patients with end-stage renal disease. Dr. McClellan's current work focuses on studies of chronic kidney disease among participants in the Renal REGARDS cohort, a US population-based sample.



RICHARD E. PIETROSKI, MS has served as chief executive officer for Gift of Life, Michigan since 2008 and oversees all aspects of the state's only organ recovery organization. Mr. Pietroski works with transplant centers, hospital

administrators, elected officials, and community leaders to inspire individuals to become organ donors and bolster the number of transplants—and lives saved—in Michigan.

In 2004, Mr. Pietroski became a tissue recipient when doctors repaired his right shoulder with tendons from a 21-year-old police officer who died in the line of duty.



BARRY M. STRAUBE, MD is the immediate past (retired) chief medical officer for the Centers for Medicare & Medicaid Services (CMS), as well as the immediate past (retired) director of the CMS Office of Clinical

Standards & Quality (OCSQ). Over the past six years, Dr. Straube was the most senior clinical advisor to the CMS Administrator and CMS leadership. His office led efforts regarding Medicare coverage decision-making; quality standards oversight for US health care facilities; quality measurement and health assessment tools; information technology systems for clinical quality data; quality improvement/innovation plus value-based purchasing initiatives; and many other activities in Medicare, Medicaid, and the Children's Health Insurance Program, not the least of which included implementation of the Affordable Care Act of 2010. He has held leadership roles in hospitals, physician organizations, HMOs, and many national quality initiatives. He retired from CMS February 1, 2011, and has joined the senior leadership team of the Marwood Group, where he serves as a director. ■

## *In Memoriam: John M. Newmann, PhD, MPH*



John Newmann, a founding member of the Arbor Research Board of Directors, passed away on Friday, August 12, 2011 at age 70. Dr. Newmann is remembered with a grateful mixture of fondness and respect for the special perspective he brought to his work on the board from 1997 to 2010. He was a renal patient for nearly four decades, and he tapped this experience in the dialysis community to help strengthen our mission to improve the lives of patients with chronic disease and organ failure. Dr. Newmann also served as president of the American Association of Kidney Patients from 1981 to 1984 and was a tireless advocate for dialysis patients, encouraging them to take a more active role in their treatments. He is survived by his daughters, Sara and Emily Newmann.

In recognition of his lifelong advocacy for patients with chronic kidney disease, Arbor Research has established the John Newmann Fund. The fund will support efforts to integrate our research findings into day-to-day medical and health policy practices. Arbor Research welcomes contributions for this work. For questions regarding the fund or other ways to support Arbor Research, please contact Jim McIntyre, development director, at [Jim.McIntyre@ArborResearch.org](mailto:Jim.McIntyre@ArborResearch.org) or 734-369-9767. ■

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