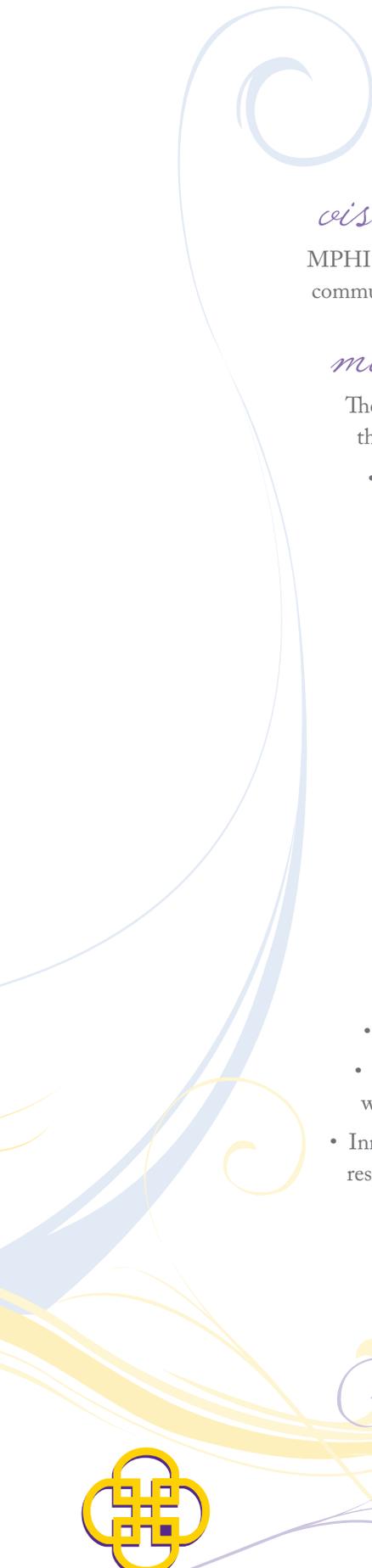




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## *vision*

MPHI will be a unique public trust which will enable communities to apply state-of-the-art community health practices.

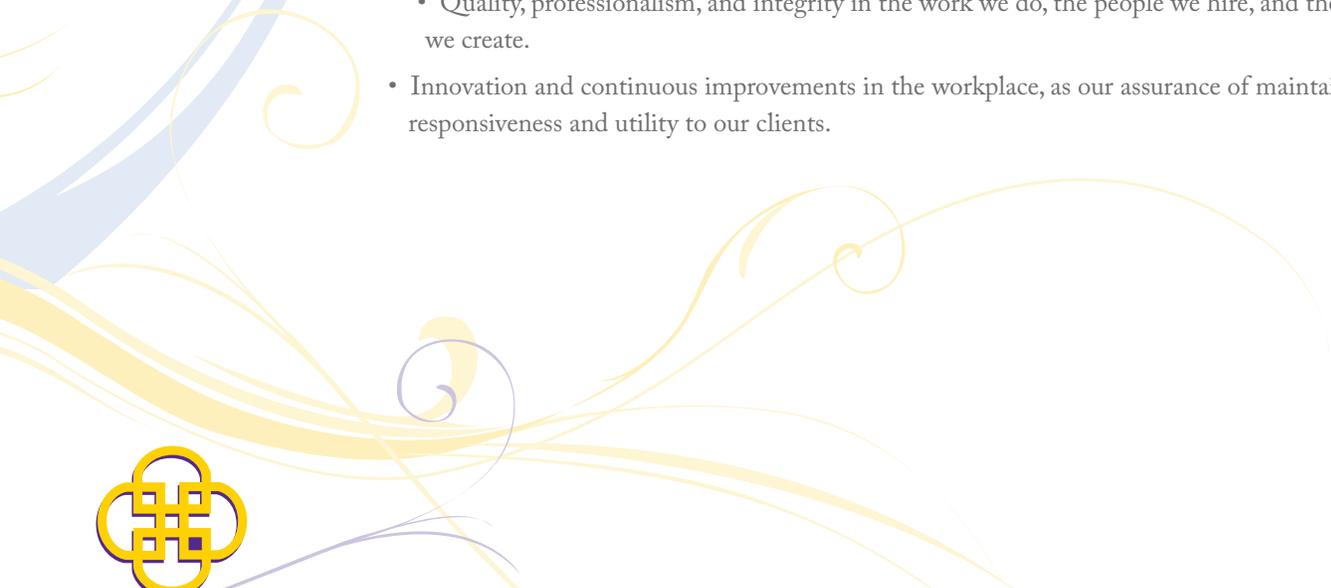
## *mission*

The mission of MPHI is to maximize positive health conditions in populations and communities through collaboration, scientific inquiry, and applied expertise which:

- Carry the voice of communities to health policy makers, scientists, purchasers, and funders
- Advance the application of scientific health practices in communities, and
- Advance community capacity to improve health and reduce disparities among population groups and geographic areas.

## *values*

MPHI's board of directors, management, and staff are committed to uphold these values in our work, relationships, and governance:

- Collaboration and inclusiveness among MPHI, government, communities, and institutions in approaching matters of the public's health.
  - State-of-the-art research, education, and demonstration as vehicles for advancing health practice.
  - Leadership and service for the benefit of community, rather than to advance institutions, partners, or staff.
  - Prevention of disease and promotion of health.
  - Ethical behavior in all scientific, professional, and interpersonal matters.
  - Quality, professionalism, and integrity in the work we do, the people we hire, and the workplace we create.
  - Innovation and continuous improvements in the workplace, as our assurance of maintaining our responsiveness and utility to our clients.
- 





## *Board of Directors*

*Back Row (L to R):*

**Jeffrey R. Taylor, PhD**, Executive Director, MPHI, Ex Officio  
**Dele Davies, MD, MSc**, MPHI Board Secretary/Treasurer, Michigan State University  
**Dean Smith, PhD**, University of Michigan  
**Rick Severson, PhD**, MPHI Board Vice President, Wayne State University  
**Ed Dore, JD, MPA**, Michigan Department of Community Health  
**Jim Giordano, MBA**, CareTech Solutions, Inc.  
**Daniel Hale, JD**, Trinity Health

*Front Row (L to R):*

**Phyllis Meadows, PhD, MSN, RN**, Detroit Department of Health and Wellness Promotion  
**Jean Chabut, MPH**, MPHI Board President, Michigan Department of Community Health  
**Richard Haverkate, MPH**, Michigan Inter-Tribal Council  
**Allen Goodman, PhD**, Wayne State University

*Not Pictured:*

**Elaine Brock, MHSA, JD**, University of Michigan  
**Jacquelynne Borden-Conyers**, The W.K. Kellogg Foundation  
**Hiram Fitzgerald, PhD**, Michigan State University  
**Adnan Hammad, PhD**, ACCESS Community Health & Research Center  
**Sarah Mayberry, MPH**, WDIV-TV

## president's letter

This past year was a very difficult one for the national economy and for Michigan's in particular. Yet it was another strong one for MPHI that saw double-digit growth. Elsewhere in this annual report you will find the charts and tables that demonstrate the organization's vibrancy. But I hope you'll also take the time to read the articles contained in this year's report because they hold the secret to why MPHI is able to grow in the midst of hard times.

The obvious answer to that paradox is that health care is a near recession-proof industry. There's a measure of truth in this generalization, but it didn't stop many health providers, both small and large, from feeling the pinch and being forced to slash services in 2008. What really allows MPHI to continue to grow is something much simpler: value.

The word value has two distinct meanings, but they come together in the Institute's vision and outreach. The first meaning of value is what we all seek when shopping – a reasonable price without a sacrifice of quality. MPHI strives to provide its services at prices that are affordable and competitive and our success in 2008 shows that we have accomplished that goal.

The word value also signifies something priceless – principles such as fairness, justice and equality that should be available to all human beings. When shopping, we all buy some products because of the word "sale" or on a momentary whim. But there are also products that we buy because we know they are good for us and our families – as we put them in our carts, we ask ourselves, "How can I afford not to buy this? It's the right thing to do." Similarly, it is MPHI's commitment to delivering services that address universal human values, as shown by the numerous examples contained in the accompanying articles, that make MPHI's services truly valuable.

While MPHI is very pleased by the success of 2008, there will be no resting on our laurels in 2009. The new year will bring new challenges and new opportunities, not all of which can be predicted.

MPHI is, however, doing everything it can to position itself to continue providing value. In particular, our strategic planning initiatives are now focusing on supporting the work of the community benefit programs of hospitals and expanding our capacity to address the built environment. MPHI has made itself uniquely qualified to do so because our broad range of expertise enables us to take a team approach to improving health outcomes by offering an entire range of services from community assessment and collaborative planning to evaluation and implementation. In turn, this model is one that we can use to support the agenda of foundation and government initiatives, allowing them to provide value to the vulnerable communities they serve.

MPHI is also laying the foundation for continued expansion in the years to come. As Jeff Shaw's article on our new data center shows, we now have the technological foundation in place that will allow MPHI to grow in whatever direction is necessary to meet emerging needs. And as Kelly Coyle's article about the health care plans of the new administration



reveals, many of the specific things that MPHI is already doing are increasingly being recognized as crucial needs. In addition, as is shown in the articles by Jessie Jones, Susan Harris, Clare Tanner and Cynthia Cameron, MPHI's loyal and dedicated staff is continuing to expand the many vital services it already provides to at-risk and vulnerable communities.

The one thing that all of these initiatives have in common – and the one thing that won't change about MPHI in 2009 – is that they provide measurable, demonstrable value. The various government agencies and organizations that hire us will continue to know that we are providing good value. Even more important, the health outreach that occurs will be of great value to the most vulnerable members of the community. By so doing, we will remain true to the fundamental values of caring, service, and compassion upon which MPHI is based.

In these tough economic times, we face the reality that every current and potential client of ours will be asking themselves, "Can we afford MPHI's services?" Our goal is to make sure that they continue to answer that question with these words: "How can we afford not to? It's the right thing to do."

Yours in good health,



*Jean C. Chabut*

*Jean Chabut, President, MPHI Board of Directors  
Deputy Director, Public Health Administration  
Michigan Department of Community Health*



## program Descriptions

*Donna McLean, PhD, Program Director,  
Health Promotion and Disease Prevention*



The **Health Promotion and Disease Prevention Program (HPDP)** focuses on chronic disease prevention and health promotion at the state, local, and national level. Its core efforts involve translating scientific research and evidence-based interventions into program development and evaluation, social marketing, coalition development, and applied research. Professional disciplines represented include dietitians/nutritionists, health educators, researchers, evaluators, professional counselors, public health administrators, communication and community development experts, and psychologists.

*Clare Tanner, PhD,  
Program Director, Center  
for Data Management &  
Translational Research*



*Chris Wojcik, MPH, Associate Director,  
Center for Data Management &  
Translational Research*



The **Center for Data Management & Translational Research (CDMTR)** is dedicated to conducting high-quality public health research that can be integrated into practice and policy. CDMTR works collaboratively with clients and partners to articulate and meet our collective community health goals. Our Center provides expertise in project management and program evaluation, policy analysis, survey research, research design, data acquisition, management and analysis, database development, data warehousing, and information reporting.

*Cynthia Cameron, PhD,  
Program Director, Systems Reform*



The **Systems Reform Program (SR)** facilitates the reform of human services systems with the aim of increasing the effectiveness of services for children and families. Staff members participate in a variety of collaborative efforts that apply outcome-based strategic planning and evaluation to the fields of health, human services and education.

*May Darwish-Yassine, PhD,  
Program Director, Cancer Control Services*



The **Cancer Control Services** program provides epidemiological and evaluation expertise to the State of Michigan's cancer control programs. It offers technical assistance in such areas as cancer prevention, screening, referral, tracking and follow up; partnership and coalition development; quality assurance and improvement; professional and public education; surveillance; strategic planning, database management, and administration. Expertise is also provided in statistics, financial analysis, data analysis, and nursing.



*Theresa Covington, MPH,  
Senior Program Director,  
Child and Adolescent Health*



*Shannon Stotenbur-Wing, MSW,  
Program Director, Child and Adolescent Health*



The **Child and Adolescent Health Program (CAH)** provides technical assistance in the design, implementation and evaluation of innovative multidisciplinary programs aimed to improve the health, safety and well-being of children and families. CAH collaborates with national, state, and local partners on a wide range of programs that strengthen existing assets and reduce risks. Focus areas include child and infant mortality, child injury prevention, child maltreatment, adolescent health and sexuality, health and human services policy compliance, antibiotic resistance, and home-based services for high-risk families.

*Jeffrey Weibl, MA, Program Director,  
Interactive Solutions Group*

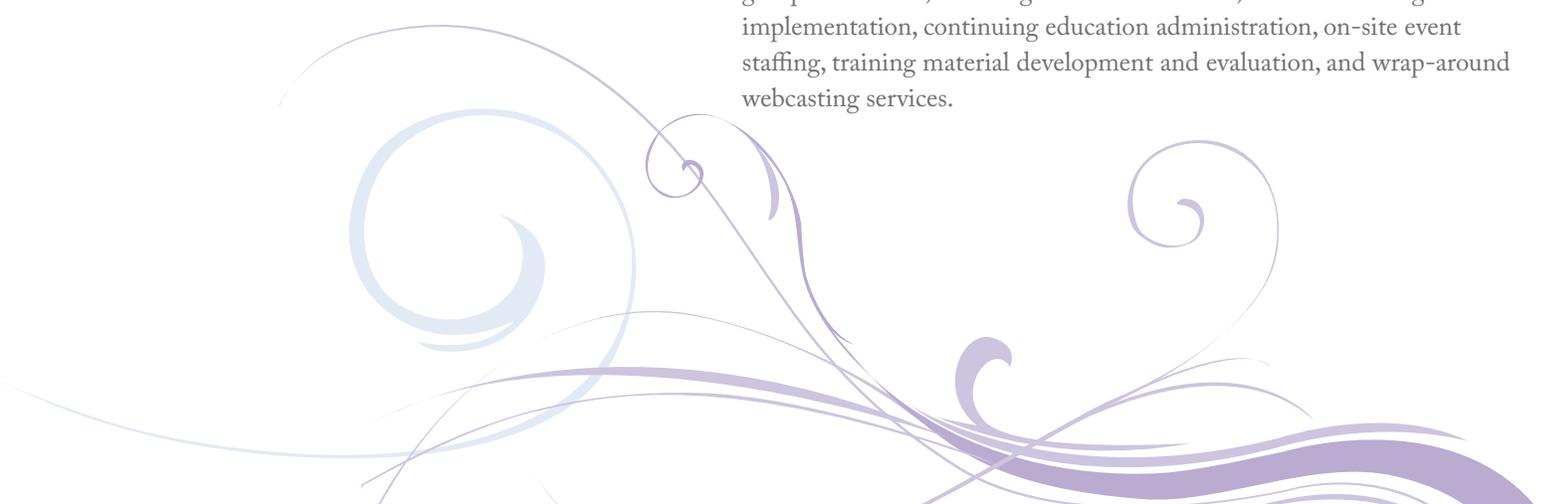


The **Interactive Solutions Group (ISG)** leverages technology and our experienced staff to develop solutions for public-sector agencies and health care organizations by creating efficient and effective ways to exchange information, automate business processes, manage change, communicate to partners, and deliver training. ISG is committed to improving health care by advancing the adoption of Health Information Technology and facilitating Health Information Exchange. ISG is affiliated with Workgroup for Electronic Data Interchange, National Medicaid EDI Healthcare Workgroup, Council on Affordable Quality Healthcare, Committee on Operating Rules for Information Exchange, National Council for Prescription Drug Programs, X12 (an ANSI accredited standards committee), Health Level 7, and the American Immunization Registry Association.

*Hope Rollins, BS, Program Director,  
Education and Training*



The mission of **Education and Training (E&T)** is to provide high-quality education and training to the public health workforce. Staff members work closely with a wide range of clients to produce conferences, large and small meetings, and e-learning methods that provide timely and effective training. Areas of specialization include needs assessment design and analysis, marketing, online registration, graphic design, group facilitation, event logistical coordination, curriculum design and implementation, continuing education administration, on-site event staffing, training material development and evaluation, and wrap-around webcasting services.





*Julia Heany, PhD, Program Director,  
Center for Healthcare Excellence*



The **Center for Healthcare Excellence (CHE)** is committed to working collaboratively with our partners to transform public health systems and improve the health of communities. The program has experience in a wide variety of content areas related to public health and health care, and offers expertise in evaluating health programs, analyzing health-related data, coordinating and facilitating multi-agency projects, providing training and technical assistance to a variety of community organizations and public-sector agencies, and conducting human service needs assessments. In addition, CHE operates a Survey Research Unit experienced in telephone and in-person interviewing and a Geographic Information Systems lab with broad capabilities. CHE specializes in projects which focus on health promotion, disease prevention, quality improvement, community-based participatory research, and ecological approaches to investigating the social determinants of health behaviors and health outcomes. The program values a collaborative, participatory approach to research and evaluation, and has collaborated on projects that examine health and wellness in diverse communities.

*Elaine Beane, PhD, Program Director,  
Center for Nursing Workforce & Policy*



**Center for Nursing Workforce & Policy (CNWP)** is an affiliated program for which MPHI provides management support services. The Center supports nursing workforce policy efforts and health policy in general at the state and national levels.



*John Beasley, MA, Program Director,  
Center for Tobacco Use Prevention and Research*



**Center for Tobacco Use Prevention and Research (CTUPR)** is an affiliated program for which MPHI provides management support services. This Center focuses on analyzing depositions and trial testimony from tobacco lawsuits to assess what they reveal in areas such as nicotine addiction and pharmacology, the health consequences of tobacco use, tobacco-product design and manufacturing, tobacco advertising and promotion, youth smoking initiation, and tobacco use cessation.



*Pamela Paul-Shaheen, PhD,  
Program Director, Kresge  
Program Office*



The **MPHI Kresge Program Office** provides the Kresge Foundation's Health team with support in their health grantmaking. Services provided include program development, strategic planning, policy analysis, research and report writing, group facilitation, requested consultative services and grants management.

# *MPHI and the healthcare plans of the new administration*

by Kelly K. Coyle, JD

"We will make sure that every doctor's office and hospital in this country is using cutting edge technology and electronic medical records so that we can cut red tape, prevent medical mistakes, and help save billions of dollars each year."

*- Barack Obama,  
President Elect radio address, December 6, 2008*

President Barack Obama has pledged to invest \$10 billion a year over the next five years to move the U.S. health care system to broad adoption of standards-based electronic health information systems, including electronic health records.<sup>2</sup> Under his administration, requirements for full implementation of health IT will be phased in and the necessary federal resources will be committed.<sup>1</sup> The new administration is committed to ensuring that these systems are developed in coordination with providers and frontline workers, including those in rural and underserved areas. In addition, the new administration will ensure that patients' privacy is protected.<sup>1</sup> A study by the Rand Corporation found that if most hospitals and doctors offices adopted electronic health records, up to \$77 billion of savings would be realized each year through improvements such as reduced hospital stays, avoidance of duplicative and unnecessary testing, more appropriate drug utilization, and other efficiencies.<sup>1</sup>

The new administration is committed to reforming the nation's health care system. Health care costs are rising at a rate higher than inflation. The total national expenditure on health care in 2007 was a staggering \$2.3 trillion and is expected to continue to rise.<sup>2</sup> The President's health plan focuses on three major concepts: making health insurance affordable and accessible for all, lowering health care costs and promoting public health.<sup>1</sup> Improving how technology is utilized in health care will play a significant role in each of these areas – a major component of the President's health plan calls for significant investment in electronic health information technology systems.<sup>1</sup>

MPHI has long played a critical role in the advancement of technology to improve health care in Michigan both for public health and health care in general. From the roll-out of Michigan Care Improvement Registry (MCIR) in 1997, to managing Governor Granholm's unprecedented 180 day MiHIN Conduit to Care project in 2006, MPHI has diligently worked with the Michigan Department of Community Health (MDCH) and the Michigan Department of Information Technology (MDIT) to turn the promise of information technology into the reality of savings and improvement in quality and care for all of Michigan's citizens.

The President's plan calls for an investment of \$10 billion a year over the next five years to move the U.S. healthcare system to broad adoption of standards-based electronic health information systems, including electronic health records.<sup>1</sup> Under new leadership, the Department of Health and Human Services is prepared to enact broad health care reform to lower costs, improve quality and provide reasonable healthcare coverage for all Americans.<sup>3</sup>

In addition to making healthcare coverage available for all Americans, the new administration will also focus on improving public health. Much like MPHI's own focus of identifying gaps in public health and working collaboratively to find solutions, the federal government's plan will be to promote public health, require coverage of preventive services, including cancer screenings, and increase state and local preparedness for disaster preparedness.<sup>1</sup>



MPHI continues to support two long-time Community Health public health projects that utilize technology to run more effectively and efficiently. MPHI initially partnered with Community Health to apply for and win a grant from the U.S. Department of Commerce to assist with the implementation of MCIR software and continues to work with the department, providing administrative and technology support. MPHI also supports the Michigan Health Alert Network (MIHAN), providing technical and administrative assistance to the Michigan Department of Community Health Office of Public Health Preparedness (MDCH-OPHP) to administer and advance the web-based application, keeping the State of Michigan, local public health agencies, hospitals, and public health clinics informed about situations that threaten the public health and safety of Michigan's citizens.

The past year has been an extraordinary one for MPHI, with the advancement of both state and federal initiatives that utilize health information and technology. MPHI often works on projects in collaboration with Michigan Department of Community Health and Michigan Department of Information Technology. In recent years, technology has become an important factor in all aspects of health care, from public health reporting to the planning and implementation of health information technology.

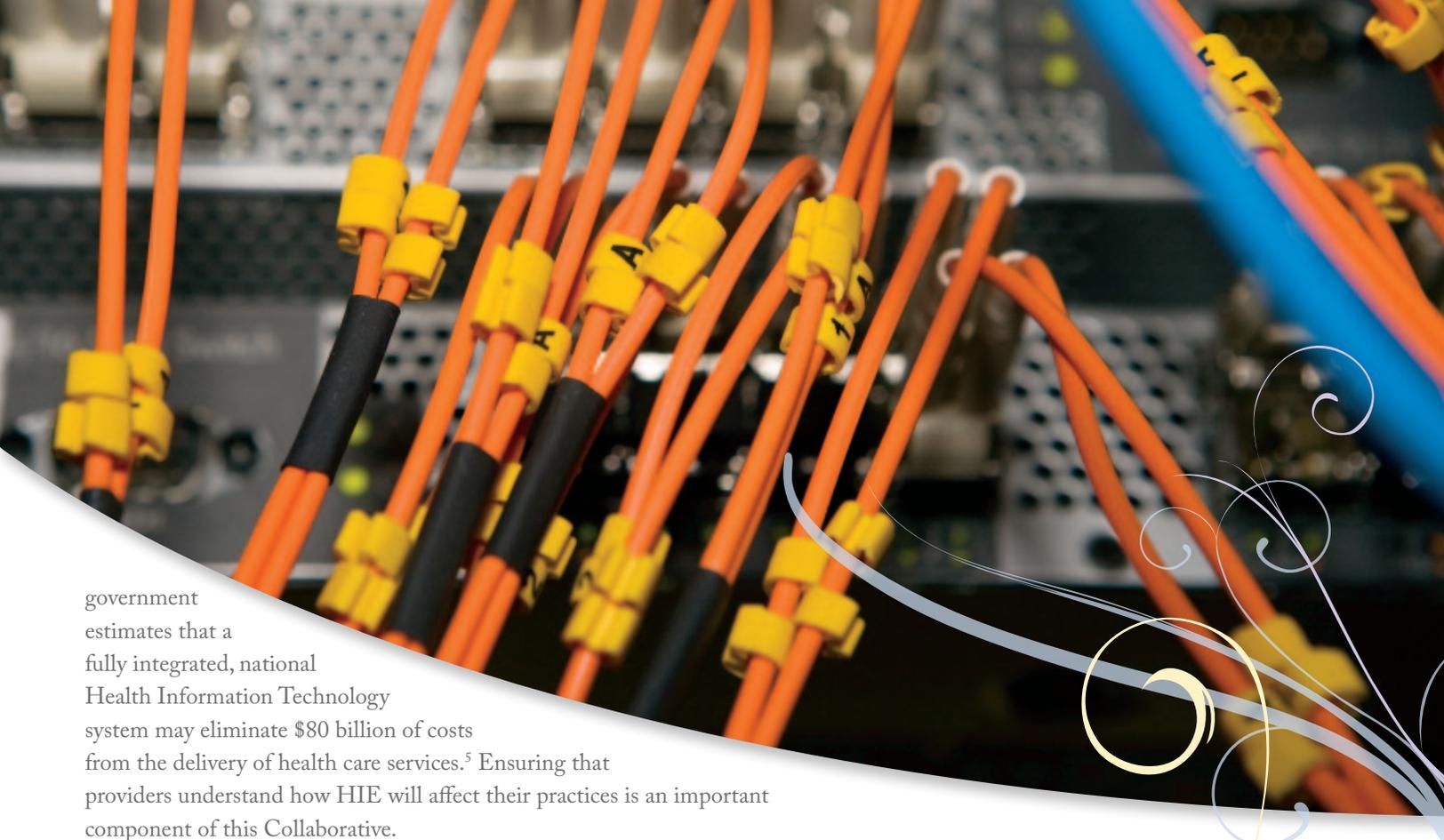
Ensuring the protection of patient privacy is another key component of the new administration's proposed health plan. In 2008, MPHI continued its work on one of the federal government's national projects, focused on identifying and addressing privacy and security barriers to Health Information Exchange (HIE). MPHI has been an active participant in the project since being awarded the first round of funding in 2006. MPHI currently co-chairs two of the federal project's seven multi-state collaboratives: the Harmonization of Privacy Laws Collaborative and the Provider Education Collaborative.

Each of the seven collaborative workgroups is designed to develop common, replicable multistate solutions that have the potential to reduce variations and harmonize privacy and security practices, policies and laws. A cross-collaborative steering committee has been established, facilitating knowledge transfer among collaborative workgroups and identifying points of intersection so as to ensure that the privacy of patients is protected and that technology adoption is safe and secure.<sup>4</sup>

The Harmonization of Privacy Laws Collaborative is examining privacy and security related barriers to health information exchange. As part of the project, Michigan convened a legal work group of stakeholder volunteers to look at the privacy and security issues and possible legal barriers to the implementation of Health Information Exchange in the state. The work group drafted legislative recommendations that were unanimously approved by the Health Information Technology Commission in 2007. The legal work group was again reconvened in 2008 to review the recommendations and provide an updated version based on changes in law and technology. These updated recommendations will become part of the HISPC 2008 final report.

The Provider Education Collaborative focuses on educating providers about HIE by developing educational materials, tools and techniques in collaboration with professional medical associations, societies and educational organizations that represent or serve providers. The educational materials will engage the attention of providers and raise their interest and awareness in the privacy and security concerns of health information exchange. The federal





government estimates that a fully integrated, national Health Information Technology system may eliminate \$80 billion of costs from the delivery of health care services.<sup>5</sup> Ensuring that providers understand how HIE will affect their practices is an important component of this Collaborative.

MPHI also kicked off another federally-funded technology project with a very different focus in 2008. MPHI, on behalf of the state of Michigan, successfully responded to a request for proposals to address health care needs in rural and underserved areas throughout the state (which is a critical need in light of Michigan's vast and remote geography). As a result, it is now managing the FCC rural health project, bringing high speed broadband internet access to public hospitals, primary care clinics and other providers that serve vulnerable populations and improve the quality of care in rural areas. This is another example of MPHI being well suited to fulfill the aims of the new administration, as providing services that reach underserved and rural populations is one of the initiatives in the new administration's proposed health plan.

As we usher in this unprecedented period of change, facing new challenges and the call from the new administration to find new ways to insure all Americans and improve health care quality while lowering costs, MPHI is poised and ready to meet these new challenges, leading the way in innovation in technology for advancing health care and for improving public health.

*Kelly K Coyle, JD., is the Project Operations Manager/ Senior Business Analyst for the Interactive Solutions Group Program at MPHI and currently serves as national co-chair for the Harmonization of Privacy Laws Collaborative, a federally funded project sponsored by the Office of the National Coordinator. Ms. Coyle assisted the Michigan Department of Community Health with implementation of the HIPAA Security Rule, managed the Legal Work group for the MiHIN Conduit to Care Project and served as senior business analyst for the MiHIN Resource Center.*

Sources:

<sup>1</sup> Barack Obama and Joe Biden's Plan to Lower Health Care Costs and Ensure Affordable, Accessible Health Coverage for All. (2008)

<sup>2</sup> Poisal, J.A., et al, "Health Spending Projections Through 2016: Modest Changes Obscure Part D's Impact." *Health Affairs* (Feb. 21, 2007): W242-253.

<sup>3</sup> Lewis, Neil, "The New Team: Tom Daschle," *New York Times* (Nov. 7, 2008)

<sup>4</sup> HISPC Collaboration Executive Summary (2007)

<sup>5</sup> Evidence on the Costs and Benefits of Health Information Technology, Congress of the United Congressional Budget Office (May, 2008)

Health-care reform and health IT are taking on increasing urgency as the nation confronts spiraling health costs. Non-profit organizations such as MPHI—one of the nation's oldest public health institutes—offer an intriguing model for facilitating cost-saving changes.

*- Government Solutions, Spring 2006*

# *a partnership for clinician electronic health record (EHR) use and quality of care*

by Clare Tanner, PhD

Implementing health information technology (HIT) and replacing what is largely a paper-based records system is seen as an essential component in the transformation of America's fragmented health care system. Americans are increasingly beset with multiple chronic diseases requiring long-term management and complex decision-making, while receiving care from multiple providers in unconnected settings. Unfortunately, vital health information stored in paper charts or as electronic records in disparate locations, can be inaccessible when needed by individual patients and their clinicians, and certainly is unavailable for queries and aggregation necessary for population-based care. Electronic health records (EHR) – in which patient information is stored as discrete data and can be accessed and transferred across care settings – are intuitively promising for improving the quality and safety of patient care. In the primary care setting, use of EHR functionality, such as embedded clinical decision support and electronic medication management, has been shown to improve quality outcomes and reduce errors.

However, the potential for EHR to improve quality of care in the United States remains that – potential. The use of EHR in ambulatory care remains low. According to the most recent survey data only 4% of physicians utilize a fully functional EHR; an additional 13% use a 'basic' EHR.<sup>1</sup> The difference between use of a 'basic' and 'fully functional' EHR are precisely those features with the most potential to improve quality: clinical decision support, performance reporting, and queries of patients needing follow up care. Not all EHR products offer full functionality, and health centers may be unable to take advantage of complex software not suited to current workflow and operational procedures. This may explain why some studies show no empirical association between high quality care and use of EHR. A further consideration is the relationship between HIT and health disparities: Can centers serving vulnerable populations afford investment in EHR, and can EHR support high-quality patient-centered care in these settings?

MPHI's Center for Data Management and Translational Research and its partners at the University of Michigan and the Alliance of Chicago Community Health Services were awarded a grant to study how a partnership model of EHR implementation can support optimum use of the EHR by primary care clinicians to improve the quality of patient care in the safety net. The grant from the Agency for Healthcare Research and Quality (AHRQ) provides \$1.18 million in funding over three years to implement an EHR in Nurse Managed Health Centers and Community Health Centers serving uninsured and underinsured communities. The grant is an outgrowth of the ongoing partnership through the Institute for Nursing Centers, funded by the W. K. Kellogg Foundation, to help nurse-managed health centers collect and apply data to improve quality and sustainability. The study is led by Principal Investigator (PI) and Professor at the University of Michigan School of Nursing, Joanne Pohl, PhD, ANP- BC, FAAN.

Seven health centers located across the country and at different stages of implementation are participating in the grant. Three centers are federally qualified health centers that are members of Alliance of Chicago Community Health Services, and four centers are nurse-managed centers – all provide primary care to vulnerable populations.

The partnership model of EHR implementation pioneered by the Alliance is characterized by:

- Selection of a top-tier, certified EHR product
- An Application Service Provider (ASP) model in which the software and data are hosted in a secure, central location and accessed by health centers via local connection to the internet
- Access to incorporated evidence-based clinical decision support



- A data warehouse capable of summarizing nationally recognized quality indicators on a per provider, per delivery site, and per center basis, and provider specific dashboard indicators for certain measures
- Guided support for EHR implementation as well as associated workflow redesign
- Training and support provided by partnership (rather than vendor) staff – with an emphasis on having knowledgeable champions on site.

The research employs longitudinal analysis of the relationship between clinician use and quality outcomes, combined with clinician satisfaction surveys, as well as qualitative interviews to understand process and contextual factors surrounding EHR implementation. The study is entering its second year. Emphasis to date has been around collection of baseline data, planning, executing implementation, training, and support. Milestones include:

- The Campus Health Center serving students of Wayne State University in Detroit, Michigan, has been live on EHR for nearly a year and is employing its system to address the mental health, along with physical health needs of its clientele.
- Glide Health Services, San Francisco, California, went live on EHR in August 2008, and is using its EHR in its service of its largely minority, underserved and homeless population. Glide is especially innovative in implementing EHR with its crisis and social services and providing for cross referrals between these services and its health center.
- Arizona State University Health Center has begun the EHR implementation process and is expected to go live early in 2009. Two affiliated clinics in the Arizona State University system will also implement EHR later in the year.
- Purdue School of Nursing Clinics is a system of three clinics providing care to underserved populations including children, rural communities, and recent immigrants. These clinics will be joining the study in 2009.

This project reflects the collaborative work between MPHI, universities, and a network of community health centers to impact quality and safety in primary care through the use of electronic health records. It demonstrates how working together and systematically applying the advances in Health Information Technology we can make important contributions to health care for vulnerable populations.

*Clare Tanner is the Program Director of MPHI's Center for Data Management and Translational Research. The Center offers services to clients in the fields of evaluation, research and data collection, management and analysis – providing project management, consultation and technical assistance in these areas as well. Visit us online at [www.cdmt.org](http://www.cdmt.org), or email: [ctanner@mpbi.org](mailto:ctanner@mpbi.org).*

Source:

<sup>1</sup>Catherine M. DesRoches, et al, "Electronic Health Records in Ambulatory Care – A National Survey of Physicians," *New England Journal of Medicine* 2008; 359:50-60



## *mphi's new Data center*

by Jeff Shaw, PMP

In the fall of 2007, the Institute was faced with a challenge: we were running out of space and power for our servers and other computer equipment. With the explosive growth of our Health Information Technology business division and the increasing technology demands of the Institute's operating needs, we had outgrown the server rooms at the main campus in Okemos.

The decision was made to build a consolidated, state-of-the-art Data Center to house MPHI's technology needs, as well as the systems we host and maintain for our clients and projects. A project team consisting of the Institute's central administration, the Management Information Technology (MIT) group and the Interactive Solutions Group (ISG) was formed to find the best solution.

Modern servers and technology consume enormous amounts of electrical power and, due to the heat they generate, require massive amounts of cooling. The electrical infrastructure, in the office park in which our Okemos campus is located, could not keep up with our growing demands. We were also running out of office space, so an on-campus location for the Data Center would have consumed valuable space. We had to look elsewhere. After exploring several options, the project team decided to build a state-of-the-art facility in an existing building at a nearby technology park.

It was vital that the new facility be large enough and have the capacity to meet all of the Institute's current and future needs. We cannot afford to run out of power or space again. The facility design allows for future expansion at every possible stage and will enable the facility to grow with the Institute. The technology park site that was selected is located just a few minutes from our Okemos offices and has a robust infrastructure that will meet our future needs. The location has the additional benefits of being near the intersection of two interstates for easy access and of having a low risk of floods, tornados, earthquakes, and other natural disasters.

Planning commenced in October of 2007, with construction starting in January of 2008 and finishing in June of 2008. MIT moved the majority of the Institute's servers in July of 2008, and ISG followed one month later, bringing with it the systems that are hosted for outside clients. The data center itself has 1,000 square feet of raised floor and is designed to hold thirty-eight racks of equipment, a huge increase over our old facilities.

Additionally, there are three offices for support staff and space for the supporting mechanical equipment. New items and systems are continually being added.

Ensuring an uninterrupted supply of power is a crucial concern and all of the necessary precautions have been put in place. Commercial electricity is provided via a 1000-kilovolt-amp transformer with three-phase, 1600-amp service, almost a ten-fold increase from the Okemos location. To provide power in the event of a loss of commercial electricity, there is a 600-kilowatt CAT diesel generator on site with more than 24 hours of fuel and a refueling contract with a local supplier. The entire data center is isolated from commercial electricity via a 100-kilovolt-amp uninterruptable power system (UPS) to condition the electricity, ensure a perfectly stable and clean supply, and provide battery backup until the generator starts. With an eye to the future, the UPS is expandable to 640-kilovolt-amp and is located outside the data center to leave more room for future servers. The data center weathered its first real test in September of 2008 when the Lansing area was hit by a widespread power outage.





With new servers generating more and more heat, cooling a new high-density data center is another top concern. Cooling is provided by two 30-ton dedicated units with plans for two additional units in the future. The current two units provide redundant cooling so operation can continue even if one unit is down. Redundant communication, both to the Internet and back to MPHI's main campus in Okemos, is provided by two independent Internet Service Providers via underground fiber optic cables at gigabit speeds. These redundant connections provide an opportunity to host critical systems at both locations, ensuring continuous availability. The entire data center and the supporting mechanical room are protected by an inert gas fire suppression system that can automatically detect and extinguish any fires without using water. The system is designed to suffocate any fire within seconds without causing additional damage to the equipment. The facility is also fully equipped with secure access proximity cards, video surveillance and a 24/7 remotely monitored fire detection and security system.

The new data center will be an asset to the Institute for many years to come and has already increased our ability to take on larger and more complex information technology projects. Almost every project MPHI works on requires some level of technology and, in recent years, the number of high-tech projects has increased dramatically. Talks are underway with several existing clients to expand their presence in the data center, and there are several exciting prospects for new projects that will utilize this new capability.

As public health and health care in general continues to modernize, the demand for this type of facility and services will skyrocket. MPHI is now ready to meet these needs and help increase the adoption of health information technology in Michigan and across the nation.

*Jeff Shaw, PMP, is a Senior Project Manager within Interactive Solutions Group and was the lead project manager for the data center project. He also works on several Health Information Technology (HIT) projects. He has over ten years experience working on and overseeing large-scale, high-technology projects.*

"Not only did the new health data center resolve MPHI issues, but we now are able to offer hosting and support services to the genetics research team at the Mayo Clinic and other entities around the country,"

*- Dr. Jeffrey Taylor, MPH Executive Director*

"Our buildings were not designed to house server rooms. Over the years we kept expanding and remodeling our infrastructure to meet technology demands and future growth. Eventually we ran into a brick wall and had to look for other options. So we designed a new facility and found an excellent location for it. The new data center not only meets our requirements for floor space, cooling, electrical needs, and redundancy, it provides us with ample room to expand services for both internal and external clients."

*- Sean Kellogg, Director, M&T*

"All of the built-in redundant systems will allow MPHI to secure projects that require continuous availability and little or no down-time. This is a vital capability in the mission-critical health care environment. The new Data Center, coupled with the talented technical team within ISG, will ensure that our clients' systems stay running for years to come."

*- Jeff Wehl, Program Director, I&E*

## INTRODUCTION

One of the biggest challenges currently facing the public health community is the obesity epidemic. A 2008 article in *Obesity* found that should current trends continue, over 86% of American adults will be overweight or obese by 2030. One proposed method to combat obesity is Active Living, which is a way of life that integrates physical activity into daily routines. The Active Living movement encourages activities such as walking or bicycling to the corner store, or playing in a neighborhood park, in order to get in at least 30 minutes of activity a day. While the idea behind Active Living is fairly simple, sometimes communities are built in a way that may discourage the integration of physical activity into daily routines. Lack of sidewalks, streets that end in cul-de-sacs, separation of residential and light commercial districts and many other factors can make it difficult to walk or bike to destinations.

In an effort to make communities more Active Living friendly, the Center for Prevention at Blue Cross Blue Shield of Minnesota (BCBSMN) funded 11 communities through two projects to address infrastructure that could prevent or discourage Active Living activities through visioning and comprehensive planning. The first project is the Active Community Assessment and Engagement (ACAE) project, which funded three communities to engage key stakeholders around Active Living principles, conduct a community assessment of Active Living resources and barriers, and develop a vision for Active Living within the community. The second project, the Active Community Planning (ACP) project, funded communities that were in the process of preparing or revising their comprehensive development plans to integrate the principles of Active Living into relevant subsections.

In order to assess the impact of the initiatives in the participating communities, BCBSMN contracted with the Center for Healthcare Excellence (CHE) at MPHI to conduct an evaluation of the two projects. The overall purpose of the evaluation was to assess the impact of involvement in the initiatives on participants, while also qualitatively describing the immediate outcomes of the initiatives. The evaluation was meant to provide BCBSMN with information on the impact of the initiatives by describing what took place in the various funded communities.

## ACAE INITIATIVE

The Center for Healthcare Excellence (CHE) evaluation team staff conducted a qualitative process and outcome evaluation of the ACAE initiative. The evaluation team gathered information regarding the nature of the assessment and engagement process in each community, the impact of the involvement in the ACAE initiative on participants, and the opportunities to facilitate Active Living identified through the process and documented in the written vision statements and resolutions prepared by each community. Specific evaluation methods included monthly telephone calls with each community, meeting observation, document collection and analysis (including collection and analysis of the written vision or resolution created in each community), and qualitative interviews.

The evaluation of the ACAE initiative was completed in May of 2008, and the results suggested that the initiative was largely successful in meeting its goals. Participation in the initiative had a significant and positive impact on participants' personal and work lives. Participants reported thinking differently about the relationship between the physical environment and Active Living, communicating more regularly about Active Living in both personal and professional settings, making lifestyle and workplace modifications, and even becoming more involved in Active Living advocacy. Moreover, the vision for Active Living put forth by participating communities has the potential to move forward planning, promotions, policies, programs and physical projects that will facilitate Active Living. The participating



communities took a step toward transforming the vision into action by passing Active Living resolutions and incorporating Active Living principles into comprehensive plan language.

### ACP INITIATIVE

The evaluation for the ACP initiative is still underway and is expected to be completed by January 2009. The Center for Healthcare Excellence at MPHI designed and implemented a qualitative process and outcome evaluation for the ACP initiative. The evaluation team collected qualitative data through a variety of methods in order to assess the impact of involvement in the ACP project on those who participated and on the comprehensive plans created by these communities, as well as to describe what took place in the funded communities. Each of the communities was updating their comprehensive plans, and due to participation in this project, was expected to be more sensitive to Active Living principles and how they can be incorporated into community planning.

In order to assess the overall impact of the ACP project on participants and comprehensive plans, the evaluation team collected data through a variety of methods, including quarterly calls with participating communities, meeting observation, key informant interviews, and content analysis of comprehensive plans. The Center for Healthcare Excellence staff worked with a consultant with expertise in Active Living and urban design, who created a tool to guide content analysis of the communities' comprehensive plans. This tool examined the plans against the components that would be included in an "ideal" plan, and assigns points to these components in order to assess the extent to which Active Living-oriented principles are reflected in concrete objectives, actions, and proposed expenditures. Each of the comprehensive plans were reviewed and coded by two evaluation team members using this tool. The two team members then came together to review and refine the assigned codes. After this was complete, points were tallied and the results used to assess the extent to which each community incorporated the principles of Active Living into the updated comprehensive plans.

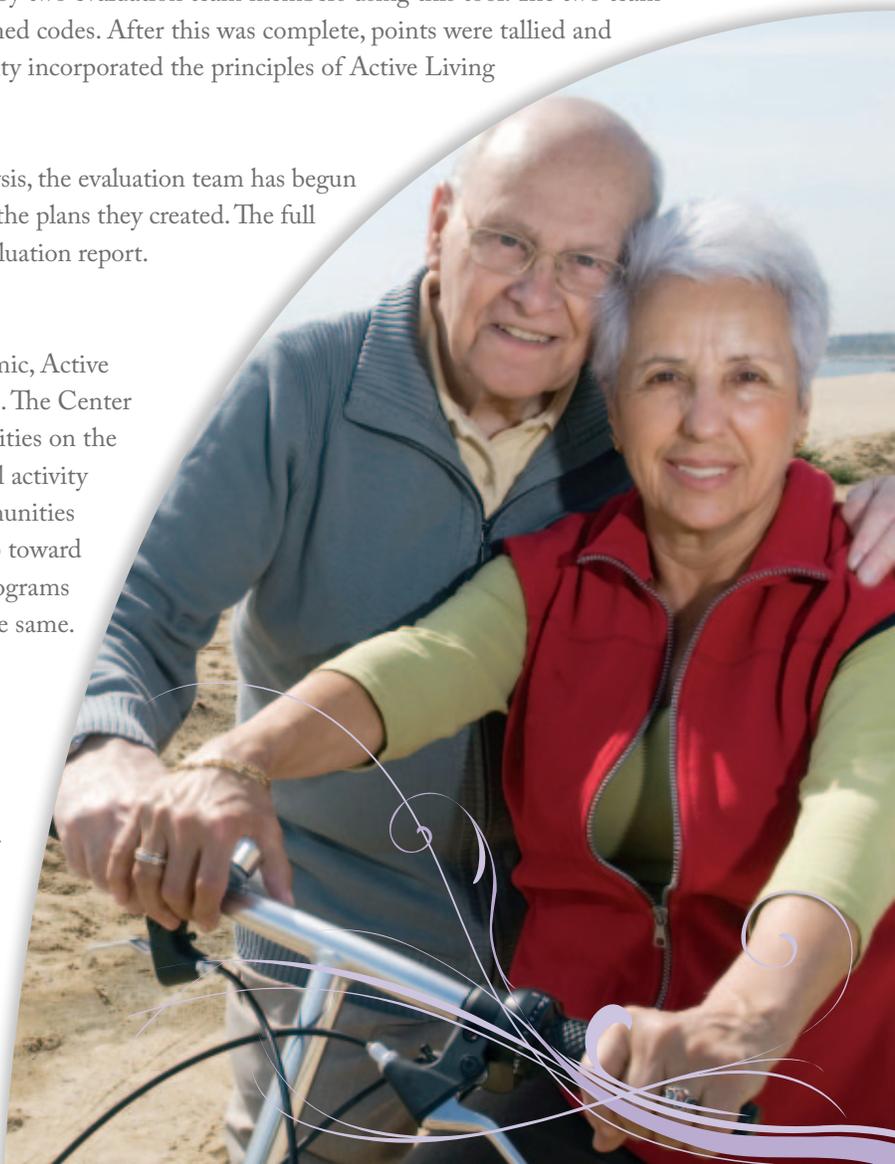
Though the evaluation is not yet complete, during data analysis, the evaluation team has begun to see the effects of this project on both participants and on the plans they created. The full extent of the impact of the project will be detailed in the evaluation report.

### CONCLUSION

While there are no quick or easy fixes for the obesity epidemic, Active Living seeks to make physical activity a part of everyday life. The Center for Prevention at BCBSMN and the participating communities on the ACAE and ACP projects are seeking ways to make physical activity opportunities more accessible to residents by creating communities that are Active Living friendly. These projects are a first step toward creating such communities, and the model used by these programs could be useful to other communities interested in doing the same.

For more information on these projects, please visit [www.preventionminnesota.org](http://www.preventionminnesota.org), [www.designforhealth.net](http://www.designforhealth.net) or [www.activelivingcommunityvision.org](http://www.activelivingcommunityvision.org).

*Jessie Jones is a Project Coordinator and Research Associate with the Center for Healthcare Excellence at MPHI. CHE staff have extensive experience working in a wide variety of areas related to public health and healthcare, and provide clients with a variety of services including and especially research, evaluation, and technical assistance services. CHE also houses a Survey Research Unit and a GIS Lab. Visit us online at [www.mphi.org/che.aspx](http://www.mphi.org/che.aspx), or email the Program Director of CHE, Julia Heany, PhD, at: [jheany@mphi.org](mailto:jheany@mphi.org).*



MPHI's Systems Reform Program supports a wide range of strategic initiatives designed to reform systemic inefficiencies. What all of the programs have in common is a goal of extending the scope and quality of health care programs. This past year was an especially rewarding one for Systems Reform as it brought the opportunity to launch several new programs and expand existing ones.

Systems Reform offers ongoing support to the Region 4 Genetics Collaborative<sup>1</sup> ([www.region4genetics.org](http://www.region4genetics.org)). The vision of the Collaborative is to ensure that all newborns will receive state of the art newborn screening and follow-up, and that children and youth with heritable disorders will have access to genetic expertise and coordinated care within the context of a medical home. Our work with many collaborative partners from the seven Region 4 states (Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio and Wisconsin) has enabled us to reach out in many exciting directions.

One important program of the Region 4 Genetics Collaborative is designed to ensure that the potential benefits of newborn screening are being realized by as many families as possible. To do so, an online course entitled "Newborn Screening: What Caregivers Need to Know" targeted to expectant parents and to healthcare providers working with expectant parents.

The course prepares learners to locate state specific newborn screening information, identify important aspects of newborn screening programs and discuss the purpose and benefits of newborn screening with parents. Course content includes such topics as laws/legislation, components of newborn screening programs, newborn screening results, specimen collection, repeat screens/repeat specimen collections, follow-up procedures, newborn hearing screening, tips for communicating with parents and newborn screening resources. The course stresses the necessity for quality blood spot collection, the implications of a positive screen, the importance of both expedient notification of the parents and the primary care provider, timely follow-up by re-screening or diagnostic consultation, and resources for accessing information, services and supports related to newborn screening and specific genetic conditions. To date over 500 nurses, physicians, genetic counselors, and nursing students from 29 states have completed the course and successfully passed a test on course content.

A project that we are especially proud of uses long-term follow-up (LTFU) data to develop evidence-based treatment protocols and improve the health outcomes of children with genetic disorders. The need for such an initiative has long been evident, but it has proven difficult to address because the rarity of the genetic conditions in question made it impossible for individual researchers to collect sufficient follow up data. In response to this need, Region 4 clinicians joined together with genetic specialists and families to collect long-term outcome data from children diagnosed with inborn errors of metabolism (IBEM), congenital adrenal hyperplasia (CAH) and other rare genetic disorders.

To date, 28 different genetic disorders will be included in the database and the information gathered will be used by clinicians and follow-up specialists to develop best practice models and evidence-based standards of care for each condition. In conjunction with the collection of data, additional attention will be paid to specific diseases as warranted. For example, through the Region 4 Endocrine Project, endocrinologists, psychiatrists and other health care professionals specializing in the treatment of children with CAH have begun the process of identifying data elements vital to better understanding the medical management of these patients.



Another key element being addressed by the Collaborative is follow-up for children with heritable conditions identified by Early Hearing Detection and Intervention (EHDI) programs. A disconnect exists between EHDI short-term follow-up systems and any long-term follow-up that is occurring. In response to this need, the Region 4 Genetics Collaborative is bringing together representatives of state EHDI programs to identify and promote best practice follow-up models.

A crucial component to the success of the Region 4 Genetics Collaborative is the involvement of families of children with heritable conditions. A parent coordinator position on the Region 4 staff has responsibilities that include encouraging the participation of parents, facilitating parental input on key decisions and creating new partnerships. It is one more way of ensuring that those most affected by health care decisions have a voice in how they are made.

One project undertaken by parents and family members of children with genetic disorders was to develop a schematic that illustrates what information families need at various points in their children's lives. Some highlights of this "just in time information" include: suggestions on how to provide families with the necessary information, along with a list of local resources and support groups at the time of diagnosis, new ideas for resources that birthing hospitals can offer to the families of newborns with genetic disorders, and suggestions for new ways to provide information on helping to navigate milestones such as driving and participating in sports when these children reach the appropriate age. These suggestions, along with other important information gleaned from these ongoing discussions, will be used to develop guidelines for genetic specialists and state genetics programs on what information families need and when they need it.

These specific examples are just a few of the many ways in which Systems Reform is fulfilling its mandate. We are very proud of each of them but also know that there is always more work to do. We continue to engage our partners in many other initiatives to enhance service systems in ways that will lead to improved outcomes for children and families.

*Cynthia A. Cameron, PhD, is the Program Director of MPH's Systems Reform Program. The Systems Reform Program facilitates the reform of health and human services systems through collaborative planning and administration of initiatives that include multiple stakeholder groups. For more information contact [ccameron@mph.org](mailto:ccameron@mph.org).*

<sup>1</sup>The Region 4 Genetics Collaborative is funded by the Health Resources and Services Administration, Maternal and Child Health Bureau, Genetic Services Branch



# *Breast and Cervical Cancer Control Program - a Decade of Quality Improvement Initiatives*

by Susan E. Harris, PhD

The Michigan Comprehensive Cancer Control Program, for which the MPHI Cancer Program provides key evaluation services, was proud to celebrate its tenth anniversary in the fall of 2008. Michigan has been recognized nationally as a leader in cancer public health programming and has been awarded the C-Change award for programs of excellence. The Michigan Breast and Cervical Cancer Control Program is also supported by the MPHI Cancer Program and we have chosen it to be the subject of this year's annual report spotlight.

The Breast and Cervical Cancer Control Program (BCCCP) is a clinical service delivery program administered through the Michigan Department of Community Health's Cancer Control Section. This federally funded program has been in existence since 1991, serving over 135,000 low-income women throughout Michigan. The program is funded through a grant from the Centers for Disease Control and Prevention (CDC) under the auspices of the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The Michigan BCCCP's mission is to provide low-income and under-insured women in Michigan with life-saving preventative screening exams for breast and cervical cancer. The program also provides for certain diagnostic testing for abnormalities found during screening. In the event of a cancer diagnosis, the program partners with Medicaid to enroll women in the Medicaid program for cancer treatment.

As with any healthcare system, quality of care is paramount. Measures and processes must be in place to ensure that clients are receiving the best clinical care possible. To this end, the Breast and Cervical Cancer Control Program has contracted with MPRO (a quality improvement organization) to implement and maintain a quality improvement program since 1999. This collaborative program has yielded a nationally recognized quality improvement program with demonstrated improvement in measures and processes.

In 1999, Community Health and MPHI began working with MPRO to establish baseline measures to use in a quality improvement program for staff members already out in the field. While the chart reviews revealed consistent clinical quality in the services being provided, the data quality was not up to standards established by CDC. In response, MPRO was contracted to perform the annual chart reviews in a systematic fashion and to begin looking at process improvements that would enhance the delivery of clinical services and the quality of the data reported to the CDC.

CDC has established standards of measurement for clinical/data quality with a focus on the timeliness and completeness of clinical care following a screening exam abnormality. Timeliness of care is defined as no more than 25% of clients taking more than 60 days from the date of the abnormal screening exam to the final diagnosis. Completeness of care is defined as a client with an abnormality receiving at least one definitive diagnostic test and a final diagnosis for at least 90% of all abnormalities.

Annual chart reviews were designed to assess adherence to performance indicators from information in patient charts, validate database information against the medical record, and provide a framework for improved patient care through a collaborative improvement process.





## FINDINGS AND INTERVENTIONS THAT LED TO IMPROVEMENTS IN ADHERENCE RATES

Data and clinical teams began working together to standardize clinical terminology. One example was the code of “smooth, round, mobile, mass” (SRMM) that resulted from clinical breast exams. When the clinical data was converted to a new data system in 1999, all 4,000 instances where this coding was used were classified as an abnormality. So the clinical team had to track down all of the individual cases to determine whether the result, in fact, required further work-up. This was an early instance of the data team and clinical team coming together to solve problems and improve adherence rates.

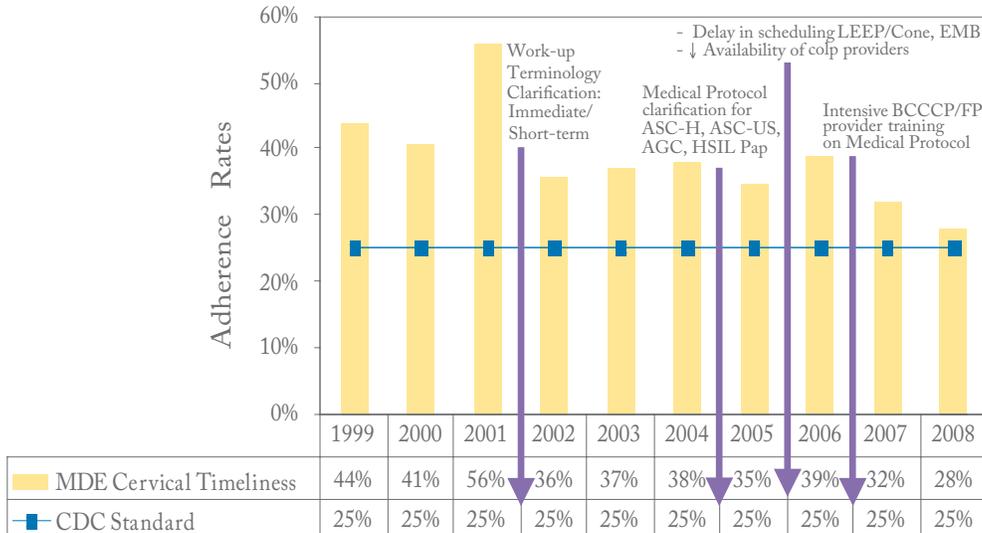
An extremely fruitful intervention involved changing the use of CDC terminology on the program’s clinical forms. CDC used the term “planned work up” to mean ruling out or confirming a cancer diagnosis and used “not planned work up” for a normal exam finding. But this terminology confused clinicians who interpreted “planned work up” as meaning the need for short-term or immediate follow-up. Once this problem was identified, we instituted standard new terminology. The success of the intervention is captured in the charts above with the improvement since 2001.

The 2005 chart review cycle revealed that more work was needed in clarifying the medical protocol to be followed by all of the program’s providers. The appropriate follow-up to an abnormal exam was developed by the medical advisory committee. Once the follow-up protocols were established, the nurse consultants translated clinical care delivery to data requirements: appropriate opening and closing of data cycles, establishing appropriate time frames for follow-up, and stressing the need for clinicians to work with their data entry staff. In addition, the nurse consultants developed clinical/data decision making algorithms based on the medical protocol. These algorithms bridged the gap between clinical services provided and data requirements by the CDC. Also, clinical problem-solving sessions at yearly regional workshops assisted program clinicians in linking clinical care delivery to performance indicators and data requirements.

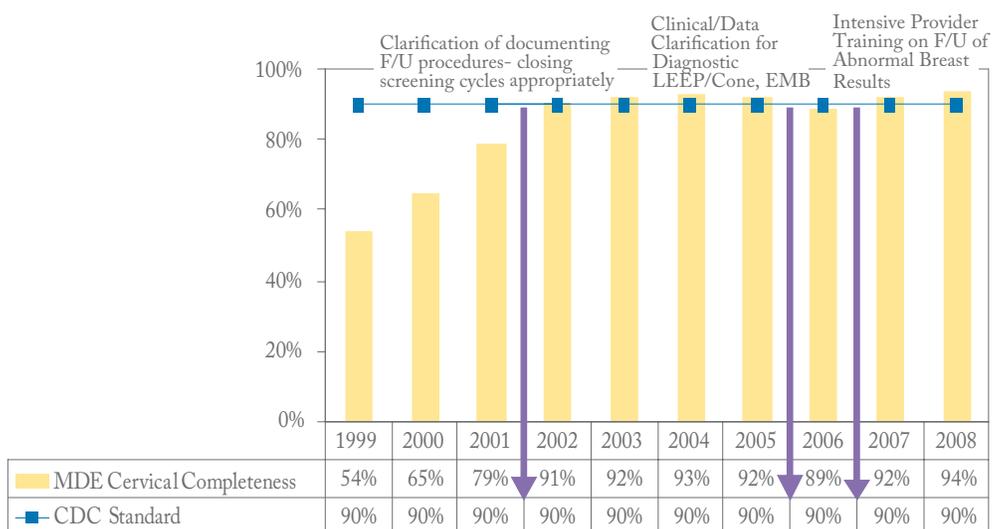


Since 2005, we have met or exceeded the CDC standards for timeliness and completeness with the exception of cervical timeliness. Through several interventions and trainings, the program was able to meet the CDC standard for cervical timeliness using the statistical margin of error employed by CDC.

### 1999-2008 MI BCCCP Cervical Care Timeliness Rates (Time from abnormal Pap test to final diagnosis)



### 1999-2008 BCCCP Cervical Care Completeness Rates (Documentation of 1 F/U Procedure)





The same interventions and protocols were applied to cervical abnormalities for adherence to timeliness and completeness standards.

In addition to the successes in bringing our adherence rates in line with CDC standards, we have also realized tremendous gains in shifting the modus operandi of our local coordinating agencies and thus the administration of the program at the county and provider levels. Here is a brief history of the shift in thinking and operating standards that have occurred over the years.

Between 1999 and 2004, evaluation of all program activities occurred at the state level. Local agencies were given a list of clients whose charts would be reviewed. Local agencies then sent copies of those charts to MPRO which conducted the actual data abstraction and evaluation. State staff would then compare the chart review evaluation findings to adherence rates in the data system.

In 2005, a pilot study of five agencies was implemented to conduct their own chart reviews instead of sending the charts to MPRO and the state for review. The pilot was such a success that it was expanded to all agencies in 2006. At that time, indicators measuring short-term follow-up of clients with Pap test results of ASC-US and Mammogram Results of ACR 3 - Probably Benign were added to those measuring the CDC Performance indicators of timeliness and completeness for abnormal screening results.

In 2006, measuring adherence rates for short-term indicators proved an eye-opening experience for many agencies. Although they had processes in place to track these women, they never formally reviewed medical record data to ensure that this was occurring on a program-wide basis. Doing so gave them a new understanding of the obstacles that could prevent a woman from receiving the recommended short-term follow-up in the time frame indicated.

In 2007, a further step was implemented whereby agencies not only reviewed their own charts but also could calculate their compliance to clinical care indicators. Receiving immediate feedback was immediately gratifying for all of the agencies and the state staff. Clinical care or data issues that were identified during the chart reviews were immediately addressed by local and state staff, saving months of time that would have been wasted. Extensive training was conducted by state staff and MPRO so as to shift the responsibility of monitoring performance indicators (both data and clinical) from state staff to local agency staff. Local agency staff became accountable for identifying program issues and for finding solutions to these issues.

The most important benefit of this quality improvement program is that it allows agencies to notify the state when they identify a problem with a patient care issue, rather than the other way around. By the time the state is notified, the problem has been identified along with a solution, and in many cases the solutions had already been implemented. This shift in thinking has given the agencies more control over their program.



Also beginning in 2007 and continuing through the present evaluation cycle, provision of care based on program reimbursement is being critically monitored and evaluated – agencies are beginning to question care provided to women that does not follow the medical protocol and informing providers regarding reimbursement. The Quality Improvement Program will be expanded in the coming years to critically evaluate the cost of care as well as the quality of clinical care.

### **BCCCP QUALITY IMPROVEMENT PROGRAM RECOGNITIONS**

In April 2002, the Breast and Cervical Cancer Control Program Quality Improvement Program was recognized by the Quality Recognition System of the State of Michigan.

In May 2004, the program was presented at a conference sponsored by Health and Human Services.

In 2007, the BCCCP Quality Improvement Program was one of five success stories chosen by CDC for recognition at the 2007 NBCCEDP Program Directors Annual Meeting.

In 2008, members of the Quality Improvement team were asked to present the program's findings and structure at the 2008 NBCCEDP Program Directors/Data Managers Annual Meeting in Atlanta.

The BCCCP QIP is being used as a model for other NBCCEDP programs throughout the nation.

The quality improvement program team is currently writing an article regarding the findings and success of the process over the last ten years.

The Breast and Cervical Cancer Control Program team is proud to have implemented and maintained such a stellar program. The team looks forward to the challenges and innovations that the next ten years will bring.

*Susan E. Harris, PhD, is the Data Manager/Senior Statistician for the Cancer Control Services Program at MPHI and provides data management and statistical support services to the Michigan Breast and Cervical Cancer Control Program and to the Michigan Department of Community Health's Cancer Control Section*



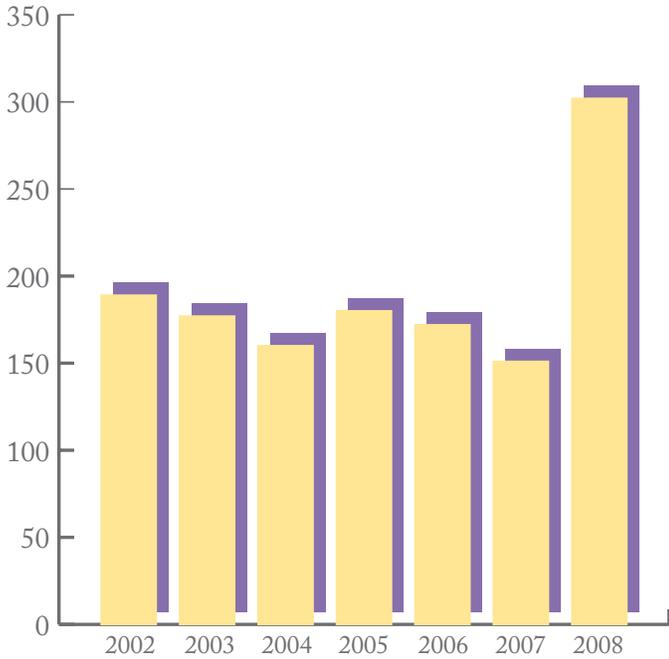
# 2008 mph project funders

Aetna Foundation  
American Association of Retired Persons (AARP)  
American Legacy Foundation  
Arbor Circle Corporation  
Berrien County Health Department  
Blue Cross Blue Shield of Minnesota  
Epilepsy Foundation of Michigan  
Georgia Child Fatality Review Panel  
Health Care Education and Training, Inc. (HCET)  
Health Research, Inc.  
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Inter-Tribal Council of Michigan  
Kellogg Action Lab/Fieldstone Alliance, Inc.  
Kresge Foundation  
Michigan Developmental Disabilities Council  
National Association of Chronic Disease Directors  
National Association of City and County Health Officials (NACCHO)  
National Network of Public Health Institutes (NNPHI)  
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U.S. Department of Health and Human Services - Health Resources & Services Administration (HRSA)  
University of Michigan  
W. A. Foote Memorial Hospital  
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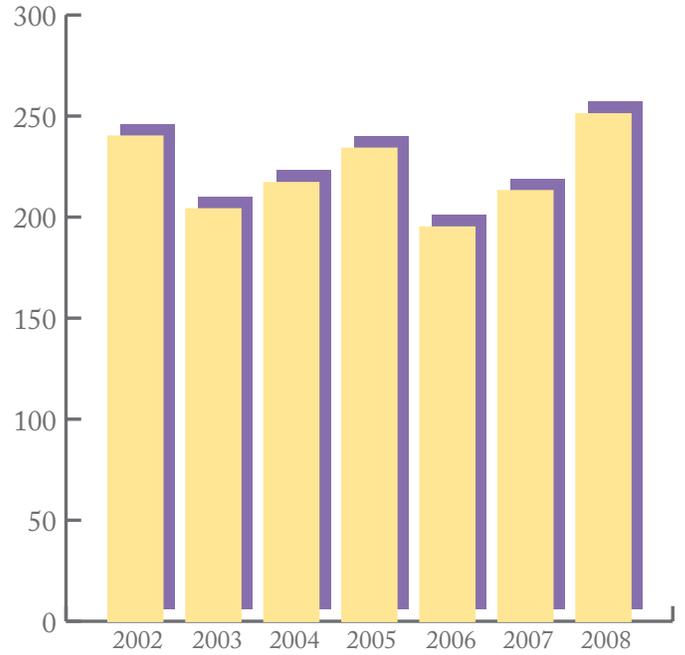


# *mpfi operational indicators*

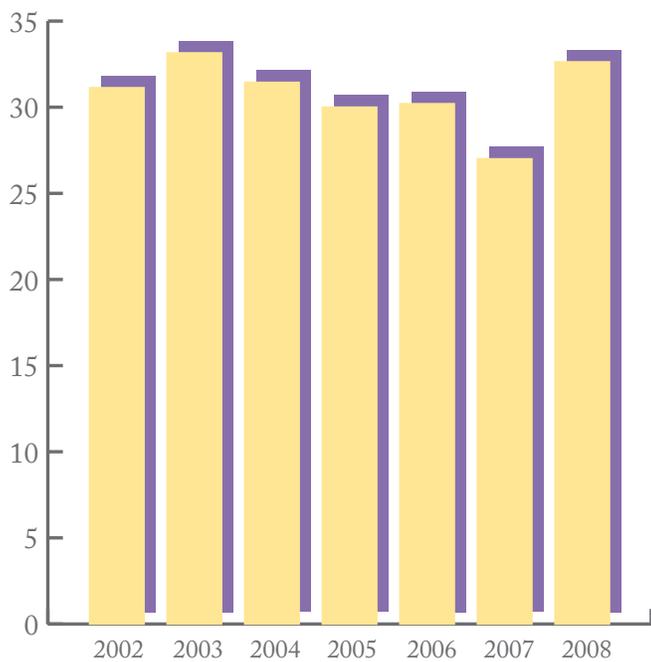
*Number of projects under management*



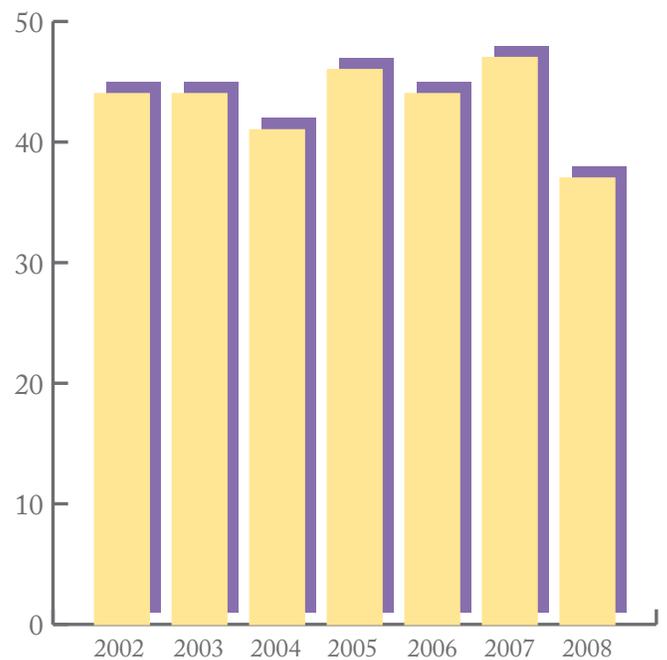
*Number of employees*



*Annual income (in millions)*



*Number of funding sources*



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