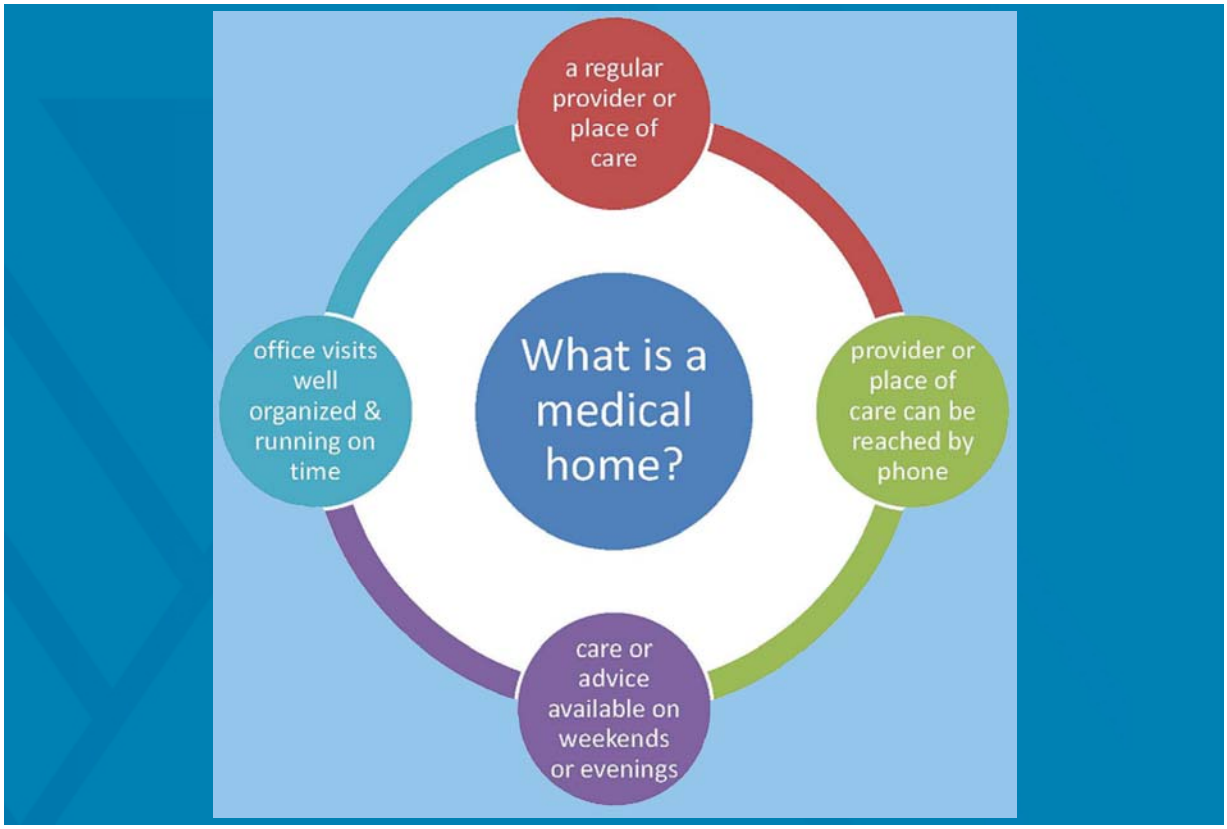
COMMUNITY RESEARCH PARTNERS

Access HealthColumbus

Coordinated Medical Home Network
Preliminary Feasibility Study

"Creating access to the right health care, at the right time, in the right place"

June 2008



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FRONT COVER MEDICAL HOME GRAPHIC

Source: Commonwealth Fund 2006 Health Care Quality Survey
Design: Access HealthColumbus

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ADDITIONAL RESOURCES AVAILABLE ONLINE AT: WWW.ACCESSHEALTHCOLUMBUS.ORG

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Executive Summary

Executive Summary

Coordinated Medical Home Network Preliminary Feasibility Study

Overview and Purpose of the Study

In July 2007, the Access HealthColumbus (AHC) Board approved a preliminary coordinated medical home network (CMHN) feasibility study, with the purpose to objectively:

- Inform the community on the value and cost of establishing sustainable capacity (supply) of coordinated medical home services to support the health needs (demand) for vulnerable people in Franklin County;
- Host conversations to discuss the preliminary study's findings with leaders from government, healthcare, business, and community advocates; and
- Support community efforts that potentially emerge from the study to strengthen and expand Franklin County's healthcare safety net.

AHC approached Community Research Partners (CRP) to implement the feasibility study. To this end, CRP researched a series of study objectives, which include the potential **demand** for coordinated medical home services; the individual and economic **benefit** of improved health; potential **funding options** for coordinated medical home services; **administrative options** for the transparent distribution of funds; **distribution options** for providing payments to primary care providers; the **cost** of providing medical home services; and the role of **personal responsibility** in a medical home environment.

Methodology

CRP conducted in-depth interviews with key informants representing government, healthcare, business, philanthropic, and advocacy organizations, and conducted focus groups with healthcare consumers at local settlement houses. CRP also collaborated with researchers from The Ohio State University Center for Health Outcomes, Policy, and Evaluation Studies (HOPES) to analyze population trends, primary care capacity, and costs related to three potential medical home models. CRP conducted an extensive literature review, which helped to inform all aspects of data collection and analysis.

Community Needs

■ Population Demand

For the purposes of the feasibility study, a vulnerable person was defined as a resident of Franklin County (adult or child) who: (1) has an annual household income at or below 400% of the federal poverty level; and (2) reports having an "unmet general healthcare need."

Key Findings:

- *Franklin County's population will increase by nearly 10% by 2018.*
- *Franklin County's vulnerable population will increase by 11% by 2018, and is growing at a rate faster than the general population.*
- *The estimated number of vulnerable people living in Franklin County who potentially have a need for medical home services (i.e., the demand) is 71,054.*

■ The Current Primary Care Safety Net

Key Finding: *The current primary care safety net is disconnected, does not have the capacity to meet vulnerable people's needs, limits access, lacks coordination, and does not adequately emphasize prevention.*

Findings

■ Individual Value of Improved Health

Key Findings:

- *Illness and poor health (including mental health) interfere with a person's ability to pursue and achieve happiness, healthy relationships, and personal success.*
- *Improved health and continuous access to medical care help a person maintain employment, avoid lost wages that result from missing work, and results in fewer dollars spent on healthcare-related costs.*
- *For many vulnerable people, access to medical care is sporadic, and sought only when a person is very ill due to limited finances and in most cases, no, or limited insurance coverage. Additional barriers include lack of convenient office hours, lack of transportation, language and cultural barriers, and difficulty navigating the primary care safety net.*
- *Health is important, but it cannot always be a priority.*
- *Consumers value having regular access to a physician, and when they don't, they value going to the ER.*
- *Some perceive that the quality of healthcare is tied directly to a person's ability to pay. Others feel that providers discourage their attempts to understand their treatment.*
- *Vulnerable people value and want the same things from the healthcare system that all people, regardless of income, want. This includes having necessary tools and information, being treated with dignity, and receiving high-quality care.*
- *Consumers value having adequate and reliable health insurance and feel that the cost of prescription drugs prevents them from achieving better health.*

Funding Options

Key Finding: *There is no single source of funding that is most appropriate for a coordinated medical home network initiative. Funding will have to come from multiple sources and in different stages. Ultimately, funding must be sustainable.*

Administration

Key Finding: *Regardless of whether a new entity is created, or an existing entity is charged with new responsibility, it is important that the organization has multi-stakeholder representation, multi-stakeholder involvement, and that it operate transparently.*

Distribution of Funds

Key Findings:

- *A payment system should support a shift from a patient care model that is focused on treating illness, to a model that emphasizes patient education, prevention, health maintenance, and early intervention.*
- *Pay-for-performance is the key to ensuring that quality measures and prevention services are incorporated into the payment model.*

Measurements of Success

Key Findings:

- *Indicators of a successful coordinated medical home network include system-wide cost savings and improved access.*
- *Other indicators of a successful CMHN include quantitative and qualitative measures of quality, coordination, accountability, and personal responsibility.*

Cost of Expanded Medical Homes

Key Findings: *Providing coordinated medical home services to 71,054 vulnerable Franklin County residents who report having an unmet general healthcare need would result in an average annual cost of $1,164 per patient served, and would require:*

- *An additional 45 primary care physicians – total cost $6.4 million annually*
- *Additional medical support staff – total cost $6.5 million annually*
- *Increased access to prescription drugs, behavioral health services, dental and vision services, and case management/care coordination services – total cost $69.8 million annually*

Economic Value of Improved Health

Key Findings:

- *In 2008, total healthcare expenditures in Franklin County is estimated to exceed $8.2 billion. By 2018, at the current rate of growth, healthcare expenditures will potentially double to $16.1 billion.*
- *Chronic disease care drives a significant portion of healthcare costs in Ohio – $13.5 billion in direct costs, and an additional $43.4 billion in economic loss in 2003.*
- *The estimated annual cost of providing medical home services to Franklin County's vulnerable population amounts to 1.0% of Franklin County's estimated healthcare expenditures in 2008.*
- *Implementing medical home principles can lead to improved health outcomes and healthier behavior.*
- *Reforming the current healthcare system by improving access, efficiency, coordination, and quality – the tenets of a coordinated medical home network model – can lead to reduced costs.*
- *Locally, the economic benefits of a coordinated medical home network touch individuals, employers, the Franklin County community and government as a whole, and Franklin County's healthcare system.*

Personal Responsibility

Key Findings:

- *The benefits that could stem from implementing a common sliding fee scale across provider sites include increased patient awareness, an increased perception that everyone is "playing by the rules," and potentially, reduced paperwork and administrative costs. Additionally, when patients know or can predict fees, regardless of where they seek care, they are able to plan better, may seek care earlier, and feel that they are being treated fairly . These factors may lead patients to want to participate in the maintenance of their own health.*
- *The benefit of implementing a common patient agreement across providers sites is that doing so provides the opportunity for each provider to educate and inform patients about their responsibilities, as consumers of healthcare services. In return, patients develop a sense of ownership and a feeling that they are part of a system that cares about their well-being.*
- *Recent developments at the national level, and within Franklin County, suggest that overcoming the challenges of implementing both a common sliding fee scale and a common patient agreement can eventually be overcome. These developments indicate that in Franklin County, given appropriate levels of funding, creativity, and collaboration, great strides can be made toward implementing a system of coordinated medical home care for the county's most vulnerable residents.*

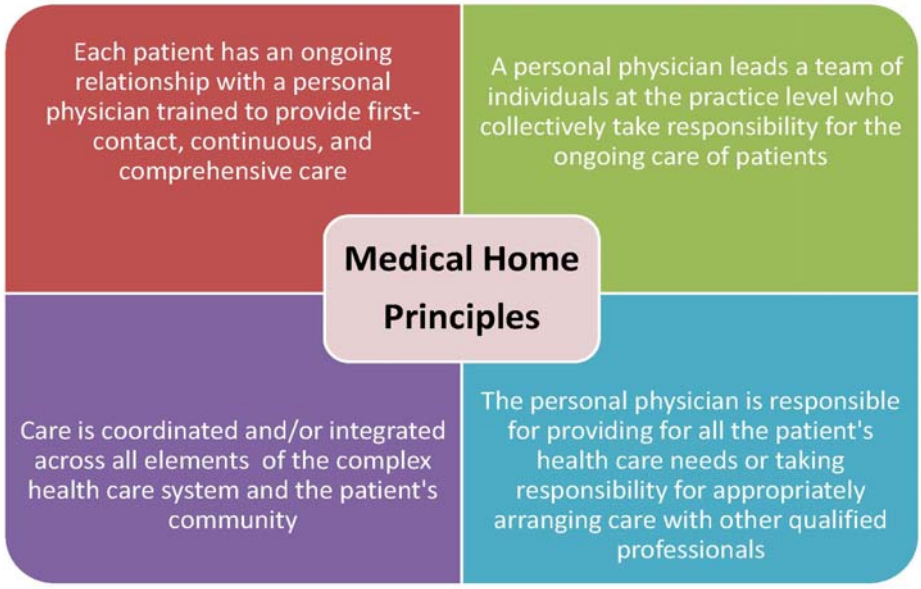
Introduction and Background

This section provides information on:

- A coordinated medical home model
- The purpose of the Coordinated Medical Home Network Preliminary Feasibility Study
- Data collection and analysis methodologies

Introduction to a Medical Home

"A medical home is not a building, house, or hospital, but rather an approach to providing comprehensive primary care. A medical home is defined as primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective." – American Academy of Pediatrics



Source: Joint Principles of the Patient Centered Medical Home, February 2007; developed by American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association

A Coordinated Medical Home Model

The American Academy of Pediatrics (AAP) first introduced the "medical home" in 1967 as a way to enhance the care of children with special needs (Backer 2007). In recent years, the concept of a medical home has been expanded to include adults, as well as children. Its principles have been discussed and formalized by The Future of Family Medicine Project (Kahn 2004), the American Academy of Family Physicians, the American College of Physicians, and the American Osteopathic Association. Together with the AAP, these provider organizations collaborated to formalize the *Joint Principles of the Patient-Centered Medical Home* (AAFP 2007).

Those principles state:

- ***Personal physician*** - each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.
- ***Physician directed medical practice*** – the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- ***Whole person orientation*** – the personal physician is responsible for providing for all the patient's healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals.

- ***Care is coordinated and/or integrated*** across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community-based services).
- ***Quality and safety*** are hallmarks of the medical home.
- ***Enhanced access*** to care is available through systems such as open scheduling, expanded hours and new options for communication between patients, their personal physician, and practice staff.
- ***Payment*** appropriately recognizes the added value provided to patients who have a patient-centered medical home.

Purpose of the Study

In July 2007, the Access HealthColumbus (AHC) Board approved a coordinated medical home network preliminary feasibility study with the purpose to objectively:

- Inform the community on the value and cost of establishing sustainable capacity (supply) of coordinated medical home services to support the health needs (demand) for vulnerable people in Franklin County;
- Host conversations to discuss the preliminary study's findings with leaders from government, healthcare, business, and community advocates; and
- Support community efforts that potentially emerge from the study to strengthen and expand Franklin County's healthcare safety net.

AHC approached Community Research Partners (CRP) to implement the feasibility study. CRP is a private, non-profit agency that provides leadership and expertise in community data collection, evaluation, and research to inform positive change within and outside central Ohio.

The purpose of the Coordinated Medical Home Network (CMHN) Preliminary Feasibility Study is to explore in Franklin County:

- Potential **demand** for coordinated medical home services
- Individual and economic **benefit** of improved health
- Potential **funding options** for coordinated medical home services
- **Administrative options** for the transparent distribution of funds
- **Distribution options** for providing payments to primary care providers
- The **cost** of providing medical home services
- The role of **personal responsibility** in a medical home environment

Data Collection and Analysis

- **Interviews and focus groups.** CRP conducted in-depth interviews (1-hour, face-to-face and telephone) with 35 key informants representing healthcare, government, business, philanthropic, and advocacy organizations (see Appendix).

  CRP also conducted four focus groups with an additional 54 healthcare consumers within Franklin County. These focus groups were conducted at local settlement houses – Gladden Community House, St. Stevens Community Center, Southside Settlement House, and Neighborhood House (see Appendix).

  Interview and focus group data were used to inform study objectives focused on value, funding options, administrative options, and distribution options (see *Purpose of the Study*, above). CRP worked in collaboration with Lorin Ranbom, a healthcare consultant, to research and develop interview protocols for the interviews[1].

- **Population and cost projections.** CRP collaborated with researchers from The Ohio State University Center for Health Outcomes, Policy, and Evaluation Studies (HOPES) to conduct detailed projections and analyses of population trends, primary care capacity, and costs related to three potential medical home models[2].

  Data were pulled from multiple sources, including the U.S. Department of Health and Human Services, the 2004 Ohio Family Health Survey, Columbus Public Health, and numerous online and academic literature sources.

- **Literature review.** CRP incorporated literature review findings throughout the report, and used literature findings to inform study objectives focused on value and personal responsibility (see *Purpose of the Study*, above).

[1] CRP's interview protocol is available at www.accesshealthcolumbus.org

[2] For detailed information about the three models, including all data, assumptions, and analytical methods used to derive the model estimates, go to www.accesshealthcolumbus.org

Findings

This section contains findings of the Coordinated Medical Home Network Preliminary Feasibility Study related to:

- The projected demand for medical home services
- Perceptions of Franklin County's primary care safety net
- The value of improved health to the individual
- Potential funding options for a coordinated medical home network in Franklin County
- Options for administering the distribution of funds under a medical home network
- Payment system options
- Measurements of the effectiveness and success of implementing a medical home network
- The estimated cost of implementing a medical home network in Franklin County
- The economic value of improved health to the community
- The role that common sliding fees and patient agreements can play in developing personal responsibility within a medical home environment

Population Demand

The extent to which medical home capacity in Franklin County can or should be established will depend largely upon the projected population of vulnerable people who are potentially in need of medical home services. In other words, the supply of medical homes will depend on the population's demand.

Definition: *For this research, a "vulnerable person" is defined as a resident of Franklin County (adult or child) who :(1) has an annual household income at or below 400% of the federal poverty level; and (2) reports having an "unmet general healthcare need."*

Whether a person has insurance is not a component of this definition, because health insurance may not guarantee access to care. The threshold of 400% of poverty reflects income-based sliding-fee schedules available at certain primary care facilities in Franklin County.

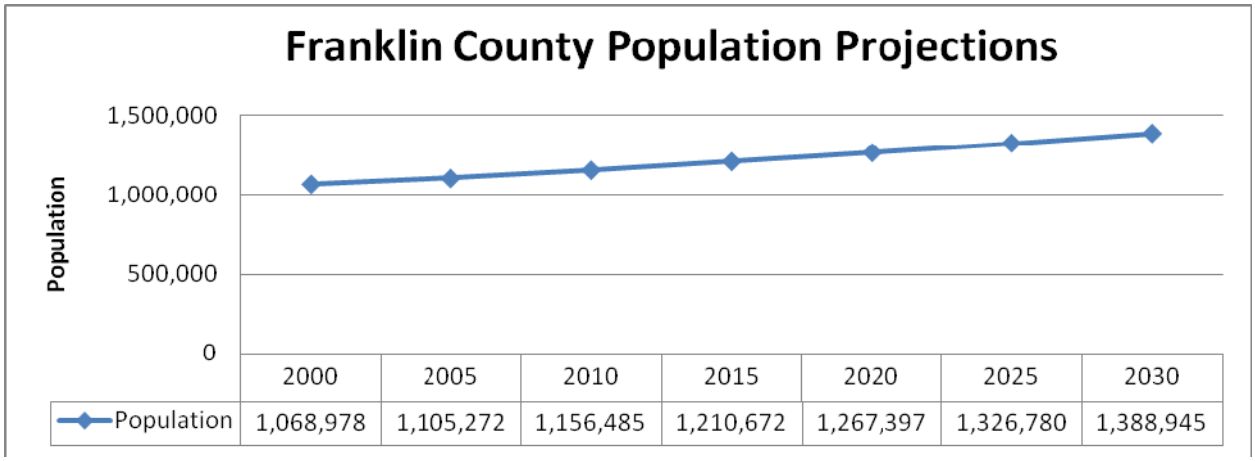
	2008 FEDERAL POVERTY GUIDELINES			
SIZE OF FAMILY*	ANNUAL HOUSEHOLD INCOME UP TO 100%	UP TO 200%	UP TO 300%	UP TO 400%
Single person	$10,400	$20,800	$31,200	$41,600
2-person family	$14,000	$28,000	$42,000	$56,000
3-person family	$17,600	$35,200	$52,800	$70,400
4-person family	$21,200	$42,400	$63,600	$84,800

* For family units with more than 4 members, add $3,600 for each additional member to meet the poverty guideline
Source: U.S. Department of Health and Human Services

Population Projections

Key Finding: *Franklin County's population will increase by nearly 10% by 2018.*

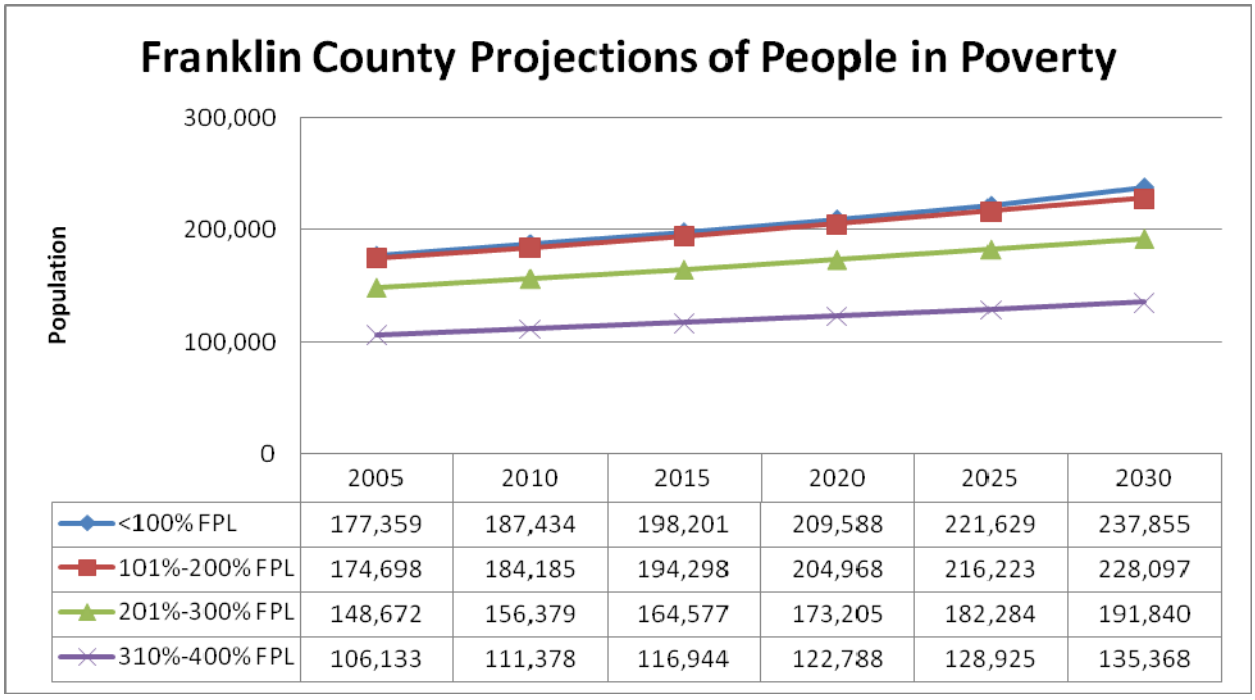
Franklin County's total population in 2008 is estimated at 1,135,721. In ten years, the population will increase by 9.6% (to 1,244,394 residents), and by 2030, it will have increased by 22.3%.



Data Source: Ohio Department of Development; Franklin County Office of Management and Budget
Calculations by The Ohio State University Center for HOPES

Key Finding: *Franklin County's vulnerable population will increase by 11% by 2018, and is growing at a rate faster than the general population.*

In 2008 the estimated number of Franklin County residents living at or below 400% of poverty is 626,167, or 55% of the county's total population. In the next ten years, this number is expected to increase by 11.1% (to 695,707 residents), and by 26.7% by 2030 (to 793,160 residents).



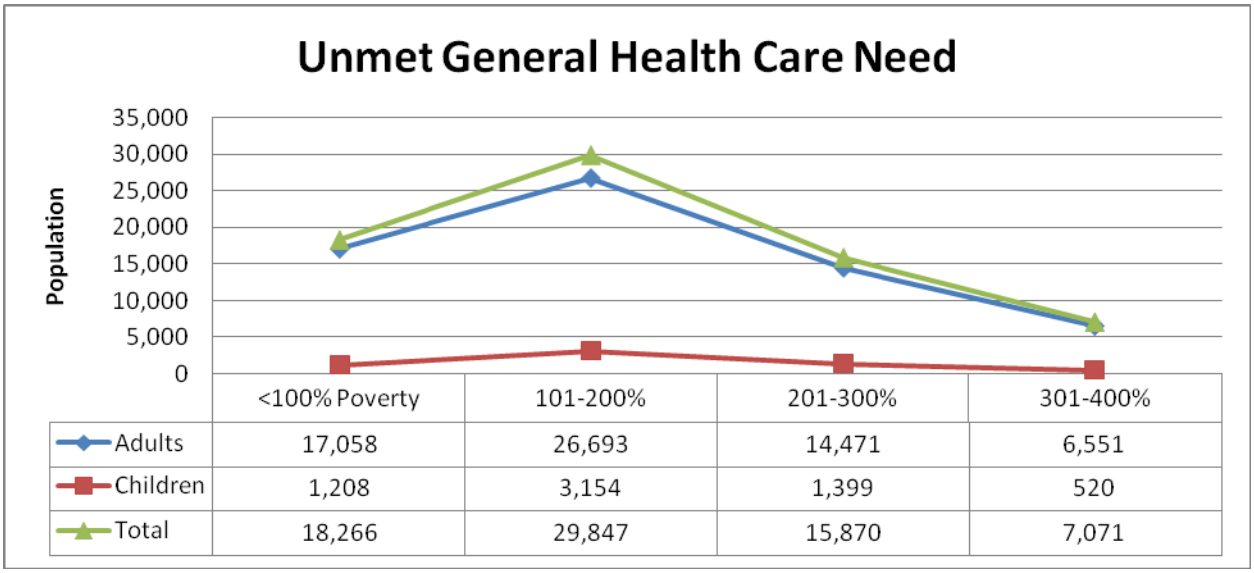
Data Source: Ohio Family Health Survey (2004)
Calculations by The Ohio State University Center for HOPES, with assistance from The Health Policy Institute of Ohio

POVERTY LEVEL	POVERTY PROJECTIONS BY INCOME AND AGE				
	NUMER OF RESIDENTS 2008		2018		INCREASE 2008-2018
Up to 100%					
Adults	119,007	TOTAL 183,337	132,786	TOTAL 204,957	11.8%
Children (1)	64,330		72,171		
101%-200%					
Adults	122,975	TOTAL 180,330	136,592	TOTAL 200,632	11.3%
Children	57,355		64,040		
201%-300%					
Adults	107,643	TOTAL 153,250	119,021	TOTAL 169,701	10.7%
Children	45,607		50,680		
301%-400%					
Adults	77,393	TOTAL 109,250	85,185	TOTAL 120,417	10.2%
Children	31,857		35,232		

(1) Under the age of 18
Data Source: Ohio Family Health Survey (2004)
Calculations by The Ohio State University Center for HOPES, with assistance from The Health Policy Institute of Ohio

Key Finding: *The estimated number of vulnerable people living in Franklin County who potentially have a need for medical home services (i.e., the demand) is 71,054.*

Based on responses to the 2004 Ohio Family Health Survey, a total of 71,054 Franklin County adults and children living at or below 400% of poverty have unmet general healthcare needs. The total is equal to 11.3% of the total population living at or below 400% of poverty in 2008 (626,167 residents).



	<100% Poverty	101-200%	201-300%	301-400%
Adults	17,058	26,693	14,471	6,551
Children	1,208	3,154	1,399	520
Total	18,266	29,847	15,870	7,071

Data Source: Ohio Family Health Survey (2004)
Calculations by The Ohio State University Center for HOPES

Healthcare Representative

"It's certainly not organized in the sense of a system in any logical way. "System" is an absolute misnomer. We may have organizational entities that have system attributes, but we don't have… a network of providers or insurers that are integrated in any way, [even] loosely."

Community Advocate

"In order to be a system, there would have to be a clear point of entry, and a clear service delivery model in place. There is no entry point. There is no organized system of care. It's highly fractured."

Healthcare Representative

"Much of the primary care safety net is never accessed because there's not enough capacity. [By the time a patient presents], it's no longer primary care… it's secondary, tertiary, even quaternary care by the time the safety net is accessed."

Healthcare Representative

"Language [is a] barrier, with the huge growing Somali and Hispanic/Latino populations in Columbus. We're tremendously challenged to keep up with [the need for] interpreters in our centers."

The Primary Care Safety Net

Franklin County's primary care safety net comprises all primary care providers that offer healthcare for low-income and other vulnerable populations, including the uninsured and those covered by Medicaid. Many of these providers have either a legal mandate or an explicit policy to provide services regardless of a patient's ability to pay. Major safety net providers include teaching and community hospitals, emergency departments, community health centers, free clinics, the public health department, and private physicians.

Key Finding. *The current primary care safety net is disconnected, does not have the capacity to meet vulnerable people's needs, limits access, lacks coordination, and does not adequately emphasize prevention.*

Organization

Overwhelmingly, key informants described the safety net as disconnected and lacking coordination across systems and providers. The safety net is:

- **A collection of primary care sites.** Each site has a different organizational structure and funding source, and provides different types and levels of primary care service. These sites are not coordinated or aligned well enough to be decribed as a "network" of care.
- **Difficult to understand and navigate.** Consumers and providers lack knowledge about available services, especially to the vulnerable, and how to access those services. As one respondent said, "people don't know where to go or who to call to ask."

Capacity

Informants said the existing safety net does not have enough capacity to meet all of the needs of Franklin County's vulnerable population because:

- Need is increasing more quickly than capacity
- Fewer new physicians are choosing to practice in primary care
- Fewer physicians accept patients with no or low-coverage insurance
- Inefficiencies in the system prevent it from achieving its fullest capacity

Community Advocate

"When I hear the term safety net, I often think episodic care rather than ongoing care … if you think of low-income folks who are accessing care, they often access it in a time of sickness and it's often wherever they can get in most quickly."

Healthcare Representative

"Access to specialty care does not exist in any kind of effective way. It exists in that, by hook or by crook, knowledgeable primary care sites can figure out how to get people into specialty care, but in terms of it being seamless or well coordinated – no."

Business Representative

"There's really a larger crisis here that's not limited to the vulnerable population. A lot of people are not getting good preventive care, because primary care doctors aren't being reimbursed very well for preventive services."

Public Official

"One of the biggest barriers [to accessing care] is the mentality of those that we serve. Understanding what their responsibility is to their own healthcare… changing their perception, their mindset… so that we're not always providing emergency care, and we're doing more preventive stuff."

Specific areas of concern:

- Primary care for adults specifically (versus children)
- Primary care in Franklin County's poorest neighborhoods
- Dental care, and to a lesser extent, vision care
- Mental and behavioral health services
- Availability of low cost prescription drugs
- Prenatal and perinatal care

Access

Access to the safety net may be tied to the system's capacity and the ease with which consumers can navigate the system. Improve the latter and perhaps access will improve. However, significant barriers to access exist that may require a more targeted response, including:

- Lack of insurance and underinsurance
- Language barriers and the high cost of interpreter services
- Lack of transportation
- Excessive wait times for an appointment and in a provider's office
- Lack of after-hours access (outside of ER or urgent care settings)

Emphasis on Continuous, Coordinated Care

Generally, key informants said that continous, coordinated, patient-centered care within the safety net is lacking. This is due, primarily, to the "entrenched" structure of the system itself. Individual primary care sites operate in relative silos, unaware of and unconnected to one another. Respondents also characterized the system as:

- **Providing episodic, "sickness-based"care.** This may be a function of vulnerable people delaying treatment until they are very ill (for many of the access and capacity reasons already described) and because health maintenance and prevention are not emphasized within Franklin County's current model of primary care.
- **Lacking an emphasis on chronic disease management.** Some acknowledgement was given to Franklin County's FQHCs, which do attempt to emphasize and coordinate chronic disease management, but for the system as a whole, there is room for improvement.
- **Lacking in referrals for specialty care.** The ability to refer vulnerable patients to a specialist and actually ensure their access to specialty care was perceived to be lacking.

Emphasis on Prevention

The majority of stakeholders said that there is not enough emphasis on prevention and preventative health services within the current safety net. To fully address the issue, the following would need to occur:

- Providers take time to educate patients and counsel them in ways that promote healthy decision-making.
- Patients work with physicians and assume more responsibility for their own health and the maintenance of their health.
- Insurance companies and other payers adequately reimburse physicians for preventative health services.

Healthcare Representative

"It's hard to even consider what I can be, and what contribution I can make to my community, to myself, to my family, if I'm sick and don't have some way of dealing with that on a regular basis."

Business Representative

"When people lose their health, they lose their ability to be productive. People go from bad to worse and eventually, unless there's a concerted effort to address health and health-related conditions, people become less and less productive."

Philanthropic Representative

"It's a quality of life perspective, which includes employment, housing, recreation, health, and the environment where we live… [When I'm healthy,] I'm working more, I'm recreating more, and I'm living longer. I'm demanding that I have access to healthy foods in all sectors of the community."

Public Official

"[Poor health] results in all kinds of side effects that cause stress, which deteriorates your quality of life. But having access – having the assurance that you can get [health] issues addressed, have the follow-up care that goes with it, and have someone to go down this road with you – that's huge."

Individual Value of Improved Health

To assess how improved health might be valued by a single vulnerable person, CRP asked key informants to consider the question from both a quality-of-life and a personal economic perspective.

Key Finding. *Illness and poor health (including mental health) interfere with a person's ability to pursue and achieve happiness, healthy relationships, and personal success.*

Key Finding. *Improved health and continuous access to medical care help a person maintain employment, avoid lost wages that result from missing work, and results in fewer dollars spent on healthcare-related costs.*

Quality of Life

Respondents spoke about the impact of improved health on quality of life in numerous ways, touching primarily on personal relationships and missed opportunities for success. Specifically, they said that poor health poses barriers to being able to:

- Take care of self and family
- Improve relationships with friends and family
- Be a better parent
- Pursue or advance an education
- Obtain or retain employment
- Contribute productively to the community

As poor health affects the ability to pursue these activities, it has further negative impacts on self-esteem and levels of stress. Improved health and having access to reliable, coordinated medical care can result in "more hope, more happiness, and self-fulfillment" (as one respondent said), less time spent managing illness, and more time spent enjoying a longer, healthier life.

Personal Economic Benefits

Illness and poor health also negatively impact individual economic wellbeing. The majority of key informants linked poor health to:

- The inability to obtain or retain gainful employment
- Poor work performance, lower productivity, and reduced pay
- More time off work due to illness or medical appointments

"You see people who are in their 40s who look like they're in their 60s. They're old people. They aren't functioning well. Their quality of life is affected. And it has to do with a lifetime of not getting basic, continuous healthcare. To me it's like a societal tragedy."

"Doctors talk to you in a language you don't understand, if they do spend any amount of time talking with you."

"Same day service in an emergency … [a vulnerable would say] 'you leave me no choice but to go to the ER. When I do have an appointment, I have to sit and wait for hours. And I have little people with me.' [Doctor's offices} are not family-friendly. You come in and there's no toys or books for the kids."

"One answer is to use more nurse practitioners, because the nurses are a lot more empathetic than the doctors often are…It seems to me like we've gotten away from the model where a nurse spends a lot of time with a patient. Everything is sped-up."

Conversely, having access to reliable, coordinated medical home care may result in improved health, improved health education and awareness, and increased prevention. The economic benefits that could be derived from this scenario include:

- Prevented illness or early intervention, and therefore, fewer dollars spent on healthcare costs
- Fewer "do or die" decisions related to finances (such as, 'Do I pay the rent, or do I pay my medical bills?')
- A more stable and predictable home and work environment

Access

Members of AHC's Community Advisory Committee, who represent various local advocacy organizations, social service organizations, and health centers, were asked how they perceive medical care is accessed among vulnerable populations in Franklin County and what are some of the barriers to access.

Key Finding. *For many vulnerable people, access to medical care is sporadic, and sought only when a person is very ill due to limited finances and in most cases, no, or limited insurance coverage. Additional barriers include lack of convenient office hours, lack of transportation, language and cultural barriers, and difficulty navigating the primary care safety net.*

- **Using the emergency room.** Many vulnerable people feel they have little choice but to use the ER, even for primary care, because the ER offers same-day service (rather than waiting days or weeks for an appointment) and 24-hour service (for those who don't have the ability to take time off work).
- **Navigating the system.** Those who could benefit most from having access to free or discounted care don't know where those services are provided, and don't know who to call to find out.
- **Transportation.** Even managed care plans that provide cab service don't always pick patients up on time, or will drop patients off but won't pick them up.
- **Language and culture.** Language and issues of culture are barriers, but not only for patients who do not speak English. Even the "language" that providers speak can seem foreign. Patients do not always understand what a physician is telling them, or know how to respond to questions. These problems are only compounded for patients with literacy barriers.

"There's a lot of seniors who don't have insurance to cover their medication. They're saying, 'well, do I pay rent or do I get my medication?'"

"It's important finding a place where you feel comfortable and can go on a regular basis. It's difficult to go to different places to receive services… they don't know anything about what the other doctor has said about treating you."

"The [ER] is closer to me from where I work, and I can get there easier. I just thought that would be the place to go."

"It would be helpful if I could go somewhere that would be open for seven days a week, they can look at me for seven days a week, that's what I would prefer. "

"When you don't have insurance, you ain't nobody."

"I consider myself blessed because I have a private insurance."

"If you have more information out there for people – where people can go if they need shots, if they need check ups. Get some more information available. That would definitely help us."

"It's important to have doctors who are willing to spend time with a patient."

Consumer Attitudes and Values

A total of 54 persons from Franklin County participated in one of four focus groups conducted at local settlement houses. The groups represented a mixture of ages, health status, and experience with Franklin County's primary care safety net. They also varied in insurance status – roughly one-third indicated they had no health insurance, another third had private insurance, and others had some other type of insurance, including Medicaid and Medicare.

Key Finding. *Health is important, but it cannot always be a priority.*

- **Personal health is important.** Participants recognized that good health helps reduce stress, increases personal productivity, and contributes to overall quality of life.
- **Personal health is not always a priority.** Personal health becomes a low priority without adequate insurance coverage, when accessing services is difficult, or when daily necessities (i.e., food, shelter, clothing) compete for an individual's money and attention.

Key Finding. *Consumers value having regular access to a physician, and when they don't, they value going to the ER.*

- **Having a regular primary care physician often results in better access to healthcare.** Participants who regularly see the same doctor, overall, indicated that they have better access to services and a more positive attitude about healthcare.
- **Places to access routine medical care are sometimes limited.** Some consider the ER their only option for accessing medical care. Others appreciate the convenience of the ER, and opt for it rather than making an appointment at a clinic or a doctor's office.

Key Finding. *Some perceive that the quality of healthcare is tied directly to a person's ability to pay. Others feel that providers discourage their attempts to understand their treatment.*

- **Services depend on ability to pay.** Focus group participants perceive that those who cannot pay do not receive quality services, or any services, and most often suffer the consequences of increased health complications and decreased quality of life.
- **Service providers can be intimidating and disempowering.** Patients sometimes feel that healthcare providers use technical language, discourage their questions and attempts to understand their treatment, and appear to make decisions about their lives based on financial and time constraints.

Case#1: Sharon

Sometime after she learned that she was pregnant, Sharon went to see a doctor because she was experiencing symptoms that greatly troubled her. During her appointment she was told that she was having a miscarriage, that nothing could be done, and to go home. Shortly afterward she was referred to a specialist to have a dilation and curettage procedure (DNC). As she was being prepared for surgery, it was discovered that she had not miscarried, and was still pregnant.

Case #2: Patricia

For many years Patricia had experienced dental pain. She eventually scheduled an appointment with a dentist to have the problem treated. But she continued to experience pain after she had a tooth extracted. When she returned to the dentist two days later, she was informed that she would have to find another dentist. Her benefits through Medicaid had expired and the dentist refused to provide additional services.

Case #3: Ed

Ed is a middle age male with no medical or healthcare insurance. He has a prescription for high blood pressure, but does not take the medicine because he cannot afford the cost. If he were able to take his medication, he believes it would reduce some of his daily stress and would motivate him to eat better and take additional steps to improve his overall health.

Personal Experiences

Key Finding. *Vulnerable people value and want the same things from the healthcare system that all people, regardless of income, want. This includes having necessary tools and information, being treated with dignity, and receiving high-quality care.*

- **Information.** Having information about available services in the community and how to access them is essential to understanding a system that is very complex and often intimidating.
- **Dignity.** No person wishes to be feel like a "second class citizen" or that their value as a person, and the type of care they receive, is based on their income.
- **Quality of care:** A person's quality of life, as well as life itself, often depends on having doctors, specialists, clinicians and ER staff who know that person's health and medical history and who work together to accurately diagnose and treat them.

Key Finding. *Consumers value having adequate and reliable health insurance and feel that the cost of prescription drugs prevents them from achieving better health.*

- **Health insurance.** Participants believe that having comprehensive insurance would allow them access to a wider range of services.
- **Healthcare legislation**. Some participants suggested that universal healthcare needs to be provided. Others indicated that at least some laws could be enacted that reduce barriers to accessing healthcare.
- **Reduced or eliminated co-pays and spend-downs**. Costs that consumers must cover for prescription drugs and services (regardless of insurance) become prohibitive to accessing care and treating illness. Some people reported that these payments have to be made before they can receive many types of services.

Healthcare Representative

"I think there are only three sources [of funds]. The three sources are: (1) personal; (2) a tax, either on the individual or on business; and (3) charities."

Community Advocate

"I would hope that we don't use foundation funding or non-renewable community charity funding for much more than helping to instigate a shift. Because for the most part, those resources can't provide us long-term stability."

Business Representative

"It's really critical to articulate the vision – the challenge, the vision, where we need to go , what we're going to do – then it's a lot easier to find money for that purpose."

Public Official

"Cost sharing with consumers should be based on ability to pay…Many people have too much pride to take what they believe is a government handout. Because it impacts all of us, all of us should be contributing."

Healthcare Representative

"I'm going on the assumption that it's an inefficient operation, so if we got together and worked through the inefficiencies, that in and of itself might be able to do more with the same amount of money. But to pump money into what is admittedly an inefficient system is not a good move right out of the chute."

Funding Options

Key informants were asked to identify potential sources of funding that might be tapped to finance a CMHN in Franklin County. Their responses varied widely, and no single "silver bullet" funding source was identified. More times than not, for every potential source that one respondent identified as feasible, another would identify as unfeasible.

Key Finding: *There is no single source of funding that is most appropriate for a coordinated medical home network initiative. Funding will have to come from multiple sources and in different stages. Ultimately, funding must be sustainable.*

- **Funding will come from multiple sources.** Most respondents acknowledged that the goal of providing increased access to coordinated medical home services is too large for any one funding source to support, and that a blend of funds will ultimately be required. Often, this blend included a variety of both public and private dollars.
- **Funding should be sustainable.** Often the feasibility of any particular funding source was judged according to whether it could (or should) be sustained or continually drawn from over time. Sources deemed less sustainable were either dismissed, or were mentioned only in the context of seed or start-up money.
- **Plans may have to be developed, piloted, and refined before a sustainable funding source can be identified.** Respondents generally agreed that the potential large scale of a CMHN would proceed in stages, from planning, to implementation, to refinement. Public "buy-in" may not occur right away, and without that, identifying long-term sources of funding would take time.
- **Cost-sharing is appropriate.** There was strong support among respondents that under a new medical home model, consumers should pay a small amount toward the care they receive. Ideally, the payment would be in proportion to what a patient could afford (and may well be little or nothing at all). The intent is to encourage awareness, engagement, and responsibility for personal health and health maintenance on the part of individual patients.
- **Address inefficiencies before looking for additional dollars.** Several respondents suggested that one of the largest problems facing Franklin County's current primary care safety net is inefficiency –in processes, in administration, and coordination. Addressing these inefficiencies may result in cost savings that could diminish or even satisfy the need for additional funding.

Community Advocate

"This community is pretty tax-averse… [but]there are different ways that [it] can be done. It doesn't have to be the traditional tax levies that we think of. There have been conversations about income tax, sales tax, leisure tax, not always immediately thinking of it as a property tax."

Healthcare Representative

"A local tax levy isn't going to happen without also having hospitals contribute a percent of their net revenue. This community would not support a levy, knowing the hospital systems made $240 million last year."

Healthcare Representative

"We need creative thinking and a willingness to put everything on the table. How could DSH funds be leveraged, even within the hospitals systems, to create more funds that could be used for care for the uninsured and vulnerable?"

Business Representative

"If everybody were to pick up a small piece of it, especially the constituencies who would benefit the most: the employers would benefit, because they'd have lower healthcare costs for their employees; healthcare organizations would have less uncompensated care; Medicaid managed care plans would have a healthier incoming population. That's a way to rationalize it, as opposed to simply asking for money from the foundation and charities."

Funding Pros and Cons

Key informants were asked to give their thoughts on some of the advantages and disadvantages to seeking funding from several potential sources. The following table provides a sample of responses.

POTENTIAL SOURCE	REASONS FOR	REASONS AGAINST
Local tax levy	• The community has never tried for a healthcare levy • The issue touches everyone and is easy to understand • It doesn't have to be a property tax; there are other avenues • A potentially large source of funds that is relatively sustainable	• The voting public is "tax averse" • If the public doesn't perceive that the issue affects them, they won't support it • There are too many competing interests for tax revenue • The funds may be sporadic; subject to non-renewal • A source to consider only when we can't make anything else work • Homeowners and businesses bear the largest burden
Dedication of hospital revenue	• Hospitals' revenues continue to grow, when other sources seem to be dwindling • Hospitals provide charity care, but not in a collaborative, system-building way • This could be viewed as another way for hospitals to uphold their commitment to support vulnerable people in our community	• Hospitals already provide charity care • Hospitals lose millions toward uncompensated care every year • Revenues made are reinvested in employees and facilities • It would be akin to a tax
Dedication or reallocation of Disproportionate Share Hospital (DSH) Program funds	• Have seen creative ways of using DSH funds in other states; it's worth considering • We need creative thinking and a willingness to put all funding sources on the table	• Hospitals have maxed out their DSH funds • The federal government may not support this program at the same levels in the future • A very "tough nut to crack"
Employer contributions	• Could be part of the larger funding equation • If we demonstrate a return on their investment, employers could be persuaded • Employers would stand to gain from improved health of their employees or the workforce in general	• A slippery slope; this amounts to a tax on employers who are already paying into the system • This isn't a business community problem, it's a societal problem
Foundations and other charitable funding sources	• Could be used for start-up money or to leverage other charitable and private dollars • Foundations' support would facilitate community buy-in • Their mission is compatible to this cause; they exist for the purpose of advancing the community and funding new ways of thinking	• Not a source that could be continually tapped • There are too many requests on foundations and charities, and they're already supporting a lot of health and human service programs • It would not amount to enough to "move the dial" on the issue

Healthcare Representative

"The problem with an existing agency…is [who] is at the table. There's very few big guns from business there, and they are the ones that can really help make it work. They are the ones who know the intelligence of process…and who have the money to back it."

Business Representative

"Too often public health is thought of as emergency preparedness and response teams. We need to move away from that notion, and get them more involved in overall population health management. It would be an expanded role for them."

Philanthropic Representative

"When I think about transparency, I naturally go to Access Health. When I think about an entity that's community-sanctioned and legitimatized, I think about Access Health."

Healthcare Representative

"For the ability to move quickly, it probably needs to be a not-for-profit, private organization that operates under the same rules as a public organization. And its governance [structure]… needs to have the public sector sitting at the table with authority. And it needs as many elements of the community as is appropriate."

Administration

When asked to consider what type of organization or entity should be charged with administering funds under a CMHN, key informants tended to respond in one of three ways. These categories of responses are described in more detail below.

Key Finding: *Regardless of whether a new entity is created, or an existing entity is charged with new responsibility, it is important that the organization has multi-stakeholder representation, multi-stakeholder involvement, and that it operate transparently.*

- **A new entity should be created.** The primary reason cited for wanting to establish a new entity to administer funds under a CMHN was the concern that any existing entity would not have the ability or the necessary authority to achieve collaboration and cooperation across disparate providers and systems. Among the players identified as needing to be at the table were public and private health providers, community representatives, and business leaders.

- **An existing organization should be charged with new responsibilities**[3]**.** A recurring theme among those who would prefer to charge an existing entity with the task of administering funds under a CMHN was a desire not to create "yet another organization," with no history and no ties to the community or the public.

- **Whether it is new or existing, the entity should be structured in specific ways.** The key elements of the administrative organization, whether it is new or existing, should include:
  - **Multiple stakeholder input**. The entity must have the ability to bring all stakeholders to the table and provide each the opportunity to collaborate and to be heard.
  - **A public/private partnership.** In most cases, respondents envisioned the entity as being a private, not-for-profit that maintains a strong public presence and operates within a public domain. Others suggested that ultimately, the entity's structure, or that of its board, should reflect or represent the funding sources that will be identified to fund the initiative.

[3] Roughly one-third of respondents named Access HealthColumbus as the specific entity that could or should assume responsibility for administering funds under a coordinated medical home network. Reasons why included AHC's public/private partnership structure, its reputation for transparency and accountability, and the abilities and vision of its leaders. At no point did CRP prompt respondents to specifically consider AHC.

- **Capacity.** The entity should have, or should receive the support to build, the capacity to handle the distribution of large amounts of money and to address grievances from both consumers and providers.
- **Transparency.** The entity should operate in a transparent and accountable manner and should provide regular reports to the community on its progress.

Business Representative

"It's fee-for-service that drives a wedge between medical specialties, between the patient and the providers, and the payer and the provider."

Healthcare Representative

"If you look at the teams that are working, they're working better on capitation and pay-for-performance. But Columbus is a fee for service environment…the more people you see the more money you make."

Community Advocate

"With pay-for-performance, there are quality [outcomes] that are being measured. [This] keeps everyone in the system on their toes, versus 'I get paid a fee regardless of what I say, regardless of the level of care I give.'"

Business Representative

"Pay for performance is about having the market work for you. It forces providers to demonstrate their viability, and that they're providing both access and quality [care]…If they are, we're going to pay them for it. And we'll pay them more for *better* access and *better* quality."

Healthcare Representative

"Pay-for-performance, in reality, is "pay-for-reporting," that evolves into "pay-for-processes," and then "pay-for-outcomes." If we do that right…then maybe we can also evolve from fee-for-service to episode-of-care, and maybe even to capitation."

Distribution of Funds

Key informants were asked to consider how a payment system to providers might be structured under a CMHN. Respondents were provided with four potential payment scenarios: fee-for service, episode-of-care, capitation, and pay-for-performance[4].

Key Finding: *A payment system should support a shift from a patient care model that is focused on treating illness, to a model that emphasizes patient education, prevention, health maintenance, and early intervention.*

- **Fee-for-service does not provide incentives for prevention.** Although a fee-for-service payment system may be "business as usual" in today's current environment, it is not necessarily one that incentivizes wellness or prevention on the part of the provider (which may be largely attributable to a perceived lack of adequate compensation for these services). Rather, fee-for-service may actually encourage providers to both "over-serve" individual patients, and at the same time, "churn" as many people through the door as possible.
- **Pay-for performance does**. Pay-for-performance may be viewed as a payment system in and of itself, or as a program that can be coupled with a traditional payment system. Either way, pay-for-performance improves quality of care and provides incentives to providers to keep people well.

Key Finding: *Pay-for-performance is the key to ensuring that quality measures and prevention services are incorporated into the payment model.*

- **Fee-for-service and pay-for-performance.** This system may be appropriate because fee-for-service is what is known in Franklin County, and may therefore be the easiest to integrate and communicate to providers. Fee-for-service also tended to be viewed as an appropriate way to pay for some of the more day-to-day, non-chronic disease-related physicians services.
- **Capitation and pay-for-performance**. Capitation payments tended to be viewed as appropriate in cases where physicians work in team environments, among large patient populations, or when coordinated, chronic disease care is being delivered. Some disadvantages are that not all providers are familiar with capitation systems, and those that are may perceive that it does not adequately reimburse for services.

[4] Fee-for-service: provider is paid a fee for each specific service rendered; Episode-of-care: provider is paid a fee for all services rendered during a single episode or portion of care; Capitation: a regular, periodic fee is paid to cover some or all services rendered by all providers for all conditions affecting a particular patient; Pay-for-performance: providers receive incentive or reward payments for meeting pre-established targets for service.

Healthcare Representative

"Ultimately there has to be cost savings for the community, whether that's savings in terms of uncompensated care [or] how we manage and coordinate chronic disease."

Community Advocate

"My sense is that too much of our healthcare investment goes for ineffective administration practices that are management-driven. Cost efficiency measures could be [included]."

Public Official

"We've got to see some kind of increase in who's taking advantage of the programs that we're paying for."

Business Representative

"For business, always think in terms of 'what can I measure that's the closest thing to telling the story in numeric terms?' To me, that's the number of lives, who you're touching and impacting."

Healthcare Representative

"Some of the quality measures are standard. Diabetes measures, hemoglobin A1c, asthma measures, congestive heart failure, etc"

Measurements of Success

Key informants were asked to consider a CMHN in Franklin County in terms of the outcomes and impacts it might be expected to achieve, and how those might be measured.

Key Finding: *Indicators of a successful coordinated medical home network include system-wide cost savings and improved access.*

Measurements of cost should focus on demonstrating that a CMHN has resulted in (or has the potential to result in) reduced healthcare costs for Franklin County, relative to projections of what *would have been spent* to provide care, to the same (or similar) population of vulnerable people, under the "old" system. Specific recommended cost measures include:

- Cost per patient encounter/total costs to total patient encounters
- Trending on patient volume to total costs over time
- Type of service and cost per service (including ER/ hospitalization utilization)
- Cost per initial encounter versus cost per repeat encounter
- Cost efficiency measures, i.e., administrative overhead/ management costs

Measurements of access should focus on the population a CMHN targets to serve, and on where, how often, and what types of service that population receives. Potential measurements include:

- Number of people in Franklin County who are defined as vulnerable
- Number of vulnerable people "enrolled" in and receiving services through a coordinated medical home network of providers
- Number of days to appointment/average wait time
- Number and type of service received
- Increased patient volume per provider site
- Home address or point of origin of patient relative to provider site

Healthcare Representative

"Good care coordination is not limited to [a provider saying] 'yes, you need an orthopedist and we've taken care of that,' but in fact, is a comprehensive look at [the whole] patient."

Philanthropic Representative

"Periodically, we need to be issuing report cards to the community about the benefits of our effort and the role that the community could play in increasing the outcomes that we're after."

Business Representative

"There ought to be some personal responsibility index that, over time, measures the population's willingness to take on more personal responsibility. I just don't know how you would measure that."

Healthcare Representative

"Do [patients] feel better about their health status after getting into a system that, we hope, has some focus on prevention?...It's the chronic disease stuff that nickels and dimes us to death."

Key Finding: *Other indicators of a successful CMHN include quantitative and qualitative measures of quality, coordination, accountability, and personal responsibility.*

To assess the quality of services provided under a CMHN, respondents recommended a mixture of both quantitative and qualitative measures. These measures are geared at determining whether the overall health of the vulnerable population has improved over time, and whether implementation of the network resulted in perceived improvements in health status and changes in health behavior.

Quantitative measures may be derived from clinical outcome indicators that speak to changes in population-based health. There are many well-established protocols for these types of measurements that include, for example, indicators of chronic disease, maternal and child health, and prevention and wellness.

Qualitative measures should focus on both the effectiveness of the services being provided under a CMHN, and patient and provider satisfaction within the network. Possible measurements include:

- Patient self-assessments or surveys of perceived health status
- Patient and provider satisfaction surveys
- Indicators of patient awareness of health status (such as knowing their blood pressure or cholesterol level)
- Patient compliance with individual care plans

Suggestions for how to assess coordination, accountability, and personal responsibility under a CMHN were less clearly articulated, in terms of clearly defined measurements. Instead, respondents spoke generally about the need to determine:

- The degree to which providers are collaborating across systems
- If coordination of care results in a "whole person" approach to care
- Whether the model addresses and achieves reductions in health disparities
- Whether administrators have provided a "report card" to the community regarding progresses and successes of the initiative, health outcomes, and how funds are being spent
- Whether patients have taken more responsibility for their health and whether personal responsibility has increased as a result of participation in the network

Cost of Providing Medical Home Services

Coordinated Medical Home Network Cost Model

Key Finding: *Providing coordinated medical home services to 71,054 vulnerable Franklin County residents who report having an unmet general healthcare need would result in an average annual cost of $1,164 per patient served, and would require:*

- *An additional 45 primary care physicians – total cost $6.4 million annually*
- *Additional medical support staff – total cost $6.5 million annually*
- *Increased access to prescription drugs, behavioral health services, dental and vision services, and case management/care coordination services – total cost $69.8 million annually*

The total annual cost to provide coordinated medical home services to Franklin County's vulnerable population (71,054 people under 400% of poverty who report having an unmet general healthcare need) is estimated to be $82.7 million. The tables on page 24 provide details of the cost model that was used to calculate this total. Drawing from federal, state, and local data sources, the cost model was developed to estimate:

(1) **The number of additional primary care physicians and medical support staff required to meet demand.** Using current utilization data for Franklin County's Federally Qualified Health Centers (FQHC), it was estimated that an additional 45 primary care physicians would be required to serve an additional 71,054 vulnerable people in Franklin County.

(2) **Provider salary costs**. Estimated salary costs include primary care physician salaries and salaries for all additional medical support staff. Together, these total $12.9 million annually (not including benefits).

(3) **Incremental costs associated with providing specific medical home services.** This includes prescription drugs, behavioral health services (mental health and substance abuse), dental and vision services, and case management/care coordination. Annual costs for individual services vary widely, ranging between $2 million and $46 million. Collectively, costs for these services total $69.8 million per year.

Alternative Cost Models

CRP is grateful to, and would like to acknowledge the dedicated team of researchers at The OSU Center for HOPES for their work in conducting the cost analyses presented in the tables on page 24. As part of a larger research effort, The Center for HOPES conducted cost estimates for three potential medical home models, drawing on data from multiple local and national sources. These estimates vary in terms of the *type* of service provided, the *location* in which services are provided, and the type of *healthcare professional* actually providing the service. All of the data, assumptions, analytical methods, and findings from this research are available on Access HealthColumbus' website, at www.accesshealthcolumbus.org.

Provider and Health Services Costs

POVERTY LEVEL	VULNERABLE PEOPLE WITH GENERAL UNMET HEALTHCARE NEEDS	PRIMARY CARE PHYSICIANS NEEDED(1)	PHYSICIANS SALARY COSTS(2)	MEDICAL SUPPORT STAFF SALARY COSTS (3)	RX DRUGS (4)	BEHAVIORAL HEALTH SERVICES (4)	DENTAL SERVICES (4)	VISION SERVICES (4)	CASE MGMT AND CARE COORD. (4)	TOTAL ANNUAL COST
<100%	18,266	11.6	$1,633,380	$1,679,255	$11,942,676	$2,468,833	$2,271,560	$714,566	$547,980	**$21,258,250**
101-200%	29,847	18.9	$2,668,975	$2,743,936	$19,514,566	$4,034,121	$3,711,773	$1,167,615	$895,410	**$34,736,396**
201-300%	15,870	10.0	$1,419,125	$1,458,983	$10,376,123	$2,144,989	$1,973,593	$620,834	$476,100	**$18,469,747**
301-400%	7,071	4.5	$632,302	$650,061	$4,623,161	$955,716	$879,350	$276,618	$212,130	**$8,229,338**
TOTAL	**71,054**	**44.9**	**$6,353,782**	**$6,532,235**	**$46,456,526**	**$9,603,659**	**$8,836,276**	**$2,779,633**	**$2,131,620**	**$82,693,731**

Cost Per Patient

POVERTY LEVEL	VULNERABLE PEOPLE (CUMULATIVE)	PROVIDER COSTS (CUMULATIVE)	HEALTH SERVICES COSTS (CUMULATIVE)	TOTAL COSTS (CUMULATIVE)	PATIENT COST PER YEAR	PATIENT COST PER DAY
Up to 100%	18,266	$3,312,635	$17,945,615	$21,258,250	$1,164	$3.19
Up to 200%	48,113	$8,725,546	$47,269,100	$55,994,646		
Up to 300%	63,983	$11,603,654	$62,860,739	$74,464,393		
Up to 400%	71,054	$12,886,017	$69,807,714	$82,693,731		

(1) Based on 2006 local FQHC utilization data extracted from the U.S. Department of Health and Humans Services, Health Resources and Services Administration (HRSA) Uniform Data System (UDS) reporting system. Data drawn from Columbus Neighborhood Health Centers, Lower Lights Christian Health Center, and Capitol Park Family Health Center. Data were aggregated and weighted to reflect the actual distribution of patients and encounters among the three organizations. Resulting analysis showed that the current ratio of provider to patient at Columbus' FQHCs is 1:1,581. To serve 71,054 additional patients, therefore, an additional 44.9 primary care physicians would be required. Analysis conducted by The OSU Center for HOPES.

(2) Based on an annual salary estimate of $141,376 per physician. Salary estimate does not include benefits. Estimate based on aggregated salary data derived from www.salary.com, the U.S. Bureau of Labor Statistics, and the National Association of Community Health Centers. Analysis conducted by The OSU Center for HOPES.

(3) Based on UDS data regarding the national benchmark for the ratio of primary care physicians to direct medical support staff. That ratio is 1:1.89; therefore 44.9 primary care physicians would require a total of 84.9 medical support staff. Annual salary per medical support staff is estimated at $76,903, also based on national UDS data. Salary estimate does not include benefits. Analysis conducted by The OSU Center for HOPES.

(4) For every health service listed in this table, costs were estimated based on annual cost-per-member services published under Ohio and other state Medicaid agencies. For each type of service, an annual estimate was derived by averaging costs drawn from at least three different data sources. The average cost per-service, per-enrollee, per-year are: RX drugs - $653.82; Behavioral health - $135.16; Dental - $124.36; Vision - $39.12; Case management/care coordination - $30.00

Economic Value of Improved Health

Current Healthcare Costs: Franklin County and Ohio

Key Finding: *In 2008, total healthcare expenditures in Franklin County is estimated to exceed $8.2 billion. By 2018, at the current rate of growth, healthcare expenditures will potentially double to $16.1 billion.*

In Ohio in 2004, personal healthcare expenditures averaged $5,725 per capita[5]. The average annual rate of increase in expenditures from 1993 to 2004 was 6.03%. Applying this rate of increase to the current year means that in 2008, spending is estimated to equal $7,235 per capita, and within Franklin County (with an estimated 2008 population of 1.1 million), a total of $8.2 billion will potentially be spent on healthcare-related costs. In the next ten years, at the same rate of increase, total spending in Franklin County could exceed $16.1 billion.

Key Finding: *Chronic disease care drives a significant portion of healthcare costs in Ohio – $13.5 billion in direct costs, and an additional $43.4 billion in economic loss in 2003.*

In 2005, 133 million Americans – 45% of the U.S. population – had at least one chronic disease (Wu and Green 2000). Chronic disease is responsible for seven out of every 10 deaths in the U.S., killing more than 1.7 million Americans every year (CDC 2008). People with chronic disease are the most frequent users of healthcare services, accounting for 81% of all hospital admissions, 91% of all prescriptions filled, and 76% of all physician visits (Partnership for Solutions 2004). Overall, people with chronic conditions account for 83% of all healthcare spending in the U.S.

The Milken Institute (2007) analyzed the tangible costs of chronic illness to the U.S. and to individual states. Seven categories of chronic disease were considered: cancer (all types), diabetes, hypertension, stroke, heart disease, pulmonary conditions, and mental disorders.

- In Ohio in 2003, the direct cost to treat these seven categories of disease totaled $13.5 billion.
- In addition, these conditions led to lost workdays ("absenteeism") and lower employee productivity ("presenteeism"), resulting in another $43.4 billion in economic loss in 2003.

The table on page 26 provides a "snapshot" of chronic disease mortality in Franklin County and Ohio. Health behaviors that are often linked to chronic disease, such as obesity and cigarette use, are also noted.

[5] Source: Department of Health and Human Services' Centers for Medicare and Medicaid Services (CMS). Personal healthcare expenditures by state of residence are based on state of provider estimates, adjusted for the flow of residents between states in order to consume healthcare services. The estimates represent spending by the type of establishment delivering care, specifically: hospital care, physician and clinical services, other professional services, dental services, home healthcare, drugs and other medical nondurables, durable medical products, nursing home care, and other personal healthcare.

HEALTH INDICATOR	FRANKLIN COUNTY ESTIMATE 2001-2003		OHIO ESTIMATE 2000-2002	
Mortality: Top 5 Causes of Death	**Average number**	**Age-adjusted death rate per 100,000**	**Average number**	**Age-adjusted death rate per 100,000**
Heart disease	2,065	239.4	95,950	271.8
All cancers	1,935	218.2	74,578	210.5
Stroke	522	61.7	21,158	59.9
Chronic lower respiratory disease	455	53.2	17,815	50.1
Diabetes	307	34.7	11,246	31.7
Current cigarette use, 2002	21.7%		26.6%	
Overweight adults (BMI>25), 2002	61.7%		58.8%	
Adequate physical activity, 2002 (30 min, 5-7 times per week)	38.6%		N/A	

Source: Columbus Public Health Department, Office of Assessment and Surveillance

Return on Investment: Health Outcomes and Health Behavior

Key Finding: *The estimated annual cost of providing medical home services to Franklin County's vulnerable population amounts to 1.0% of Franklin County's estimated healthcare expenditures in 2008.*

From page 24 of this report, the estimated cost to provide 71,054 vulnerable Franklin County residents with medical homes services, including increased access to a primary care physician, prescription drugs, behavioral health, dental, vision and case management/care coordination services, is $82.7 million per year. This represents 1.0% of the estimated amount that will be spent on healthcare-related expenditures in Franklin County in 2008 ($8.2 billion).

Key Finding: *Implementing medical home principles can lead to improved health outcomes and healthier behavior.*

Research indicates that having a regular source of medical care and having continuous, coordinated, and patient-centered care can actually lead to improved health outcomes and healthier behavior (Backer 2007; Starfield et al. 2005).

- **The impact of primary care on health.** From a series of systematic literature reviews, a team of researchers from Johns Hopkins University found that overall health is better in geographies where there are more primary care physicians and where people receive care from primary care physicians versus specialists. Measures of total and cause-specific mortality, low birth weight, self-reported health status, and life span were all favorably related to access to primary care (Starfield et al. 2005).
- **The impact of medical homes on health behavior.** A study by The Commonwealth Fund (2006) found that when adults have a medical home, their access to care, receipt of routine preventive screenings, and management of chronic conditions improves substantially. For example, adults with medical homes are more likely to have higher rates of cholesterol screenings, receive counseling on

diet and exercise, and check and maintain their blood pressure compared to adults without medical homes[6].

- **The impact of medical homes in Franklin County**. In 2007, Access HealthColumbus' *Care Coordination Incubator* pilot –a demonstration project on Columbus' Southside that organized a system of charitable/subsidized healthcare for low-income, uninsured residents – found that among 317 patients who participated in the incubator for a period of 12 months, physical and mental health status improved significantly[7]. Improvements were reported in social and emotional health, physical functioning, body pain, and energy levels.

Return on Investment: Reduced Costs

Key Finding: *Reforming the current healthcare system by improving access, efficiency, coordination, and quality – the tenets of a coordinated medical home network model – can lead to reduced costs.*

- **On a national scale**, research from The Commonwealth Fund Commission on a High Performance Health System (2006) found that "Closing gaps in the nation's current healthcare system around key indicators of quality, access, efficiency, equity, and capacity to innovate and improve could save at least $50 billion to $100 billion per year in healthcare spending, and could prevent 100,000 to 150,000 deaths per year."
- **In Ohio,** research from the Ohio Business Roundtable (2008) found that "Focusing state healthcare reform efforts around key indicators of life and health, economic efficiency, fairness and equity, citizen satisfaction, and the business climate could reduce the effects of illness and injury in Ohio by 6% to 12% over the next ten years, saving 40,000 to 80,000 years of potential life loss (YPLL)[8].
- **In Franklin County**, Access HealthColumbus' *Care Coordination Incubator* pilot found that among 317 patients who participated in the incubator for a period of 12 months, there was a 37% reduction in emergency room utilization (a total of 136 fewer visits compared to the year prior to participation in the program). The estimated savings from this single aspect of the pilot exceeds $76,000 in one year[9]. If similar results were realized among Franklin County's entire vulnerable population (71,054 people), savings could top $17 million in one year.

[6] Presence of a medical home was defined as: 1) having a regular doctor or place of care; 2) experiencing no difficulty contacting a provider by telephone; 3) experiencing no difficulty getting care or medical advice on weekends or evenings; and 4) having doctors' office visits that are well organized and running on time.

[7] An outcomes study was designed to measure health status, access to care, and emergency room utilization. Out of 12 variables measured, 11 were found to be statistically significant ($p<.05$).

[8] YPLL is a measure of the relative impact of various diseases and other lethal forces on a population. The metric takes into account both how may persons die of a specific cause, and at what age they die. The younger the average age of death due to a condition, the more YPLLs per death.

[9] Estimate based on Medical Expenditure Panel Survey (MEPS) Statistical Brief #111 (January 2006). Average expenses for a visit to the ER was $560 in 2003. For people ages 45 to 64, the cost was substantially higher on average ($832). If a surgical procedure was performed during the visit, the average payment was $904. Overall range was $42 (10th percentile) to $1246 (90th percentile).

Key Finding: *Locally, the economic benefits of a coordinated medical home network touch individuals, employers, the Franklin County community and government as a whole, and Franklin County's healthcare system.*

The potential return on a community-wide investment in coordinated medical home services may be captured in numerous ways, and by multiple community stakeholders.

Individuals

Pages 12 to 15 discuss the individual value of improved health. Though it is not possible, in the context of this report, to quantify the economic benefit of "improved quality of life," for example, it is possible to say that improved health, which stems from improved access to primary, preventive, and coordinated care, can result in a household having fewer, and less expensive health-related expenses, and is likely to result in fewer missed days at work and increased productivity. By way of example:

- Data show that average per capita spending for people with one or more chronic conditions is more than five times greater than spending for people without any chronic conditions: $4,398 versus $850 annually, respectively (Partnership for Solutions 2004).

Healthcare Representative

"People who aren't employed [and] who receive other kinds of public benefits would not have to. People lose their jobs because they have health status issues. They're unable to sustain employment… or they need to leave [work] to receive healthcare."

Business Representative

"Hopefully, this becomes a lower-cost model for delivering healthcare. So that over time, maybe you don't actually lower healthcare costs, but maybe you decrease the slope of increasing healthcare costs. Slow it down a bit. That would be a good thing."

Employers

Key informants identified several ways that employers would benefit from an investment in a coordinated medical home network in Franklin County. Chief among these were:

- Reduced employee absenteeism and presenteeism
- Reduced employer-sponsored healthcare costs
- Healthier workforce

Indeed, literature demonstrates that:

- Chronic health conditions, like hypertension and diabetes, and mental conditions, like depression, can result in days off work ranging from 1 to 26 days per year, costing employers $170 to $4,741 per year, per condition, per employee (Goeztel et al. 2004).
- Presenteeism (on-the-job productivity) resulting from chronic conditions can result in economic losses as high as $38 per day, per employee (Goeztel et al. 2004).
- Presenteeism costs can be higher than direct medical costs, representing 18% to 60% of the "burden of illness" to employers (Goeztel et al. 2004).

Literature is also rife with examples of companies that have realized substantial cost savings after implementing on-site wellness programs (French 2008; Walter 2008; Goetzel 2002;Aldana 2001;Goetzel et al. 1999). Oftentimes, company wellness programs emphasize the same principles of routine and coordinated care (albeit on a small scale) that exemplify the medical home concept. For example:

- **Worthington Industries,** a Columbus-based company, provides employees with an on-site medical center, pharmacy, and a voluntary wellness program, through which employees receive primary care services, prescription drugs, prevention screenings, comprehensive health education (including exercise and nutrition counseling), and mental health counseling. The medical center is open at convenient hours, during each of the company's three shifts, and many employees rely on it as their "medical home." Since implementing the program in 2001, Worthington Industries has seen total workplace injuries drop 65%, workers' compensation claims drop from 1,000 to 358, a reduced percentage of employees who smoke (from 22% to 15%), *and an overall return on investment of $2:$1 – for every dollar invested, the company has realized $2 in health-related cost savings.*

Other economic evaluations of wellness programs have found an average ROI of $3.14 per $1 invested in traditional health promotion programs. Individual estimates of programs have ranged from $1.49 per $1 invested to as much as $13.00 per $1 invested (Goetzel et al. 1999; Goetzel 2002).

Healthcare Representative

"If we figure out to how to ensure that a community of people receives health benefits, companies would see that as an economic advantage to locate here and be in this community. It's no longer under the radar that health is a major economic driver in the business world."

Community Advocate

"If we really do this right, we'll get invested as a community and make this a healthy community. There will be a lot of value in people wanting to do healthy things…Ultimately, if we really turn this into a prevention based model, the hope is that the overall cost of healthcare does not continue to go up."

The Franklin County community and government

Key informants identified ways that an investment in medical home services might benefit government and the community as a whole:

- Being known as a "healthy community" has economic development potential:
  - Employers, attracted by a healthy workforce, may decide to locate or expand a business in Franklin County.
  - Individuals and families, attracted by the community's promotion of healthy lifestyles, may decide to locate here.
- Lower utilizations of social service and welfare programs
- Lower rates of unemployment

The healthcare system

A key feature of a medical home network is coordination across healthcare systems, which is intended to improve patient access, and also to improve efficiency and quality of care. A recent report from Pricewaterhouse Coopers (2008) found that inefficient spending in the nation's health system has been calculated at up to $1.2 trillion – more than half of all spending. Top areas of inefficient spending included inefficient claims processing, and ineffective use of information technology (IT). Regarding the use of IT specifically, Tom Donahue, president and CEO of the U.S. Chamber of Commerce says, "When it comes to health IT, we see that data cannot be shared, and much of the important information needed for patient care remains locked away in paper folders in filing cabinets.

The result [is that] care can be uncoordinated, inefficient, and on too many occasions, inadequate." (Donahue 2008).

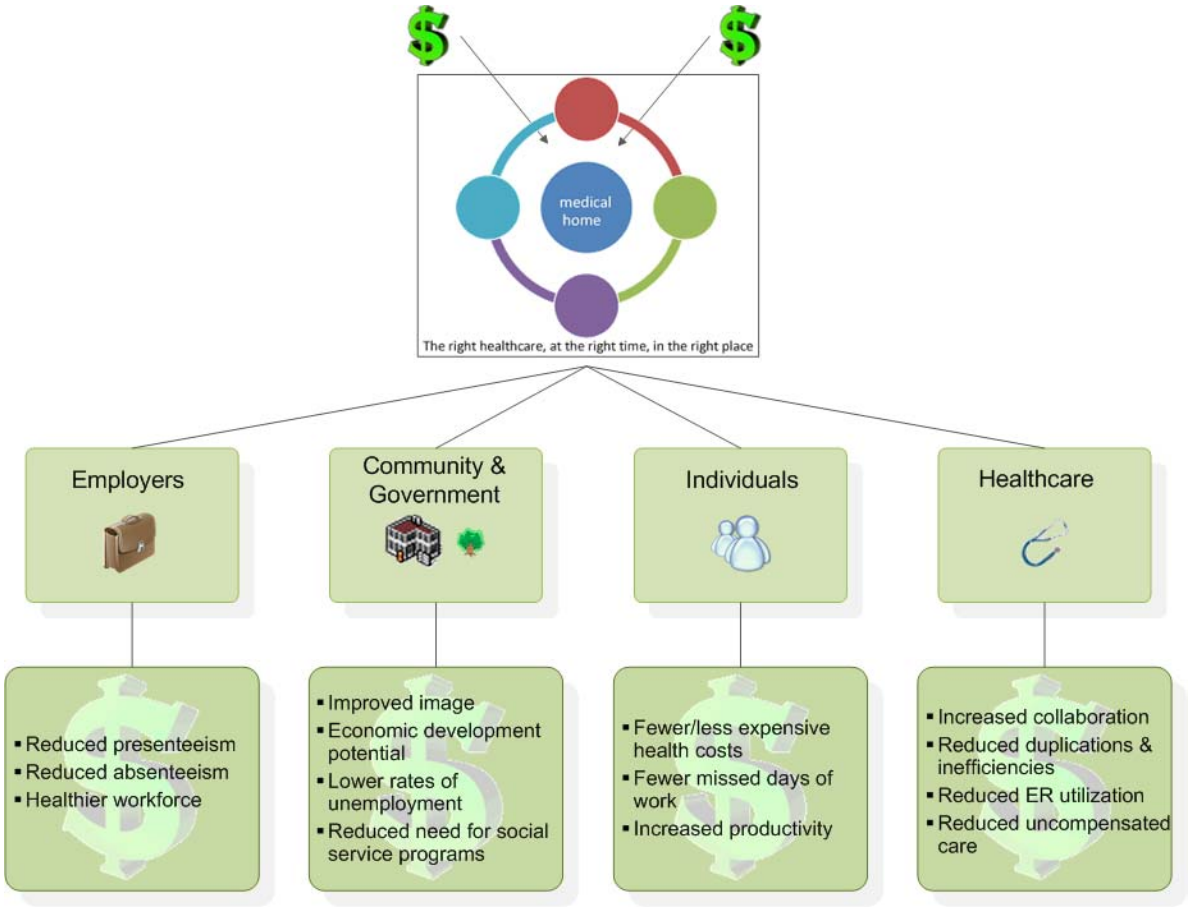
Key informants identified other ways in which investment in a coordinated medical home network could result in savings for the healthcare system overall. Namely by:

- Reductions in emergency room utilization
- Reduced costs from uncompensated inpatient and outpatient care

In a recent report, the Ohio Hospital Association (2008) provides evidence that many Ohio emergency departments are being used for non-emergency cases, oftentimes by low income, uninsured people who "have limited access to other sources of healthcare services." For example, in 2006, Ohio ERs saw 933,000 visits from patients without insurance coverage, and only 8% were serious enough to be given an observation bed or admitted to the hospital.

Summary of Benefits

The figure below illustrates the numerous benefits that could result from investing in and establishing a coordinated medical home network of primary care services in Franklin County.



Personal Responsibility

In the context of a coordinated medical home network, the notion of personal responsibility can be considered in several ways, from the perspective of both the provider and the patient.

Provider Responsibility

In a patient-centered medical home environment, patients expect providers to:

- Provide care that is safe, effective, patient-centered, timely, efficient, and equitable
- Coordinate patient care effectively
- Be a point of contact and to maintain routine contact throughout the patient/provider relationship
- Be accessible on days and times that are convenient to patients
- Listen to patients and take time to explain things to them
- Promote and enhance healthcare literacy, including communicating the benefits of having a personal medical home

Patient Responsibility

In turn, providers and other consumers of health have the right to expect that all patients:

- Follow healthcare plans, as prescribed by providers
- Learn about their health and how to monitor it
- Keep providers informed of their health status and any changes in their health status
- Avoid unhealthy lifestyles and poor health choices
- Show up for appointments on time
- Contribute some amount of money toward their care, in accordance with their means

In order for patients and providers to be aware of, and to be able to act on their individual responsibility within a coordinated medical home network, certain institutional changes may be required to overcome the obstacles presented by a disconnected, difficult-to-navigate primary care system. The following pages present two ideas, with both challenges and opportunities, that may facilitate these changes. One is to implement a standard sliding fee scale that is applicable to all safety net provider sites; the other is to utilize a common patient agreement that explicitly describes the mutual expectations of the patient and the provider.

Sliding Fees and Patient Agreements

Key Finding: *The benefits that could stem from implementing a common sliding fee scale across provider sites include increased patient awareness, an increased perception that everyone is "playing by the rules," and potentially, reduced paperwork and administrative costs. Additionally, when patients know or can predict fees, regardless of where they seek care, they are able to plan better, may seek care earlier, and feel that they are being treated fairly . These factors may lead patients to want to participate in the maintenance of their own health.*

All primary care sites that are part of Franklin County's safety net offer sliding fees to patients who are uninsured and of low-income. Services are discounted in proportion to an individual's or family's annual income, up to a certain percentage of poverty (the highest being 400% of poverty).

Challenges under the current system include:

- Patients do not always know what sites offer sliding fees.
- Discount rates among provider sites are not standardized.
- Provider policies regarding the determination of a patient's eligibility for a discount are not standardized – for example, one facility may require the patient to submit proof of income and fill out a lengthy application, another facility may require only self-attestation of income.
- Lack of coordination and the tendency of sites to operate in "silos" may unintentionally result in one or more sites carrying a heavier "load" of uninsured patients. This may be due to the tendency of patients to "shop around" for their perceived best deal.

Key Finding: *The benefit of implementing a common patient agreement across providers sites is that doing so provides the opportunity for each provider to educate and inform patients about their responsibilities, as consumers of healthcare services. In return, patients develop a sense of ownership and a feeling that they are part of a system that cares about their well-being.*

The key to patients and providers being personally responsible within the context of a medical home environment is actually knowing what the expectations of the system are. Some kind of agreement, that both provider and patient understand and accept, is one method to ensuring this.

Access HealthColumbus requires that all patients enrolled in the Voluntary Care Network (VCN) read and sign a client agreement that spells out their responsibility within the network. Clients agree to follow treatment plans, supply information, apply for benefits (when applicable), keep appointments, and address bills and payment options in a timely manner. Clients who consistently violate the agreement may be terminated from the VCN at AHC's discretion.

Challenges to implementing a common patient agreement across systems include:

- Technological and administrative barriers relative to hospitals and other primary care site implementing a common form that may require shared patient information
- No real ability to "sanction" patients for non-compliance (by denying care, for example)

Key Finding: *Recent developments at the national level, and within Franklin County, suggest that overcoming the challenges of implementing both a common sliding fee scale and a common patient agreement can eventually be overcome. These developments indicate that in Franklin County, given appropriate levels of funding, creativity, and collaboration, great strides can be made toward implementing a system of coordinated medical home care for the county's most vulnerable residents.*

Various national reports and studies have encouraged adoption of common patient sliding fees and common patient agreements. For example:

- The Institute of Medicine (IOM) report *Crossing the Quality Chasm* calls for improvements in health system technologies and the use of the internet to automate patient-specific information and transfer data (IOM 2001).
- The National Committee for Quality Assurance (NCQA) has formulated a set of measures intended to provide a uniform way of implementing the concepts of a medical home. These measures include written standards for patient access and patient communication (NCQA 2007).

Cities have begun to implement principles of a coordinated medical home network that emphasize coordination and sharing of data.

- The City of Galveston, Texas has designed a web-based, universal, bilingual application form that is used to coordinate screening, healthcare, and social services for all applicants among all social service agencies, faith-based groups, and other providers. The web-based application has created a "rich database on health and healthcare in Galveston County, including health problems and other characteristics of clients and the value of services provided."(Hein 2001).
- In Franklin County, the four hospital systems have recently come together to discuss and develop a standard sliding fee that would apply to each hospital.
- AHC piloted a common HCAP (Hospital Care Assurance Program) form within the VCN that is used by all hospital systems where VCN clients receive care.

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Appendix

Key Informant Interviews

Community Research Partners interviewed the following community leaders for the Access HealthColumbus Coordinated Medical Home Network Preliminary Feasibility Study:

Jeff Biehl	Access HealthColumbus
David Blom	OhioHealth
Antonia Carroll	Franklin County Department on Aging
Phil Cass, Ph.D.	Columbus Medical Association and Foundation
Jack Clark	Nationwide Children's Hospital
Katie Clark	Columbus Medical Association Physicians Free Clinic
Lisa Courtice, Ph.D.	The Columbus Foundation
Debera Diggs	Communities in Schools
Terri Donlin	Osteopathic Heritage Foundations
Joe San Filippo	Nationwide Better Health
R. Reed Fraley	The Ohio Hospital Association
Randy Garland	Capitol Park Family Health Center
Jewell Garrison	Columbus Medical Association and Foundation
Peter Geier	The Ohio State University Medical Center
Mike Gonsiorowski	National City Bank
Matt Habash	MidOhio Food Bank
Sister Barbara Hahl	Mount Carmel Health System
Isimeme Ikharebha	Access HealthColumbus
Erika Clark Jones	Columbus Mayor's Office
Doug Kridler	The Columbus Foundation
Cathy Levine	Universal Health Care Action Network of Ohio
Dan Like	The Ohio State University Medical Center
Teresa Long, M.D.	Columbus Public Health Department
Doug Lumpkin	Franklin County Job and Family Services
Ty Marsh	Columbus Chamber of Commerce
Dorothy McKay	Southside Settlement House
Bob Milbourne	The Columbus Partnership
Joy Parker, R.N.	Capital Park Family Health Center
Barb Poppe	Community Shelter Board
Charleta Tavares	Columbus City Council
Olivia Thomas, M.D.	Nationwide Children's Hospital
Dana Vallangeon, M.D.	Lower Lights Christian Health Center
Michelle Vander Stouw	United Way of Central Ohio
Julie Van Putten, M.D.	Columbus Neighborhood Health Centers
Mary Jo Welker, M.D.	The Ohio State University Medical Center
Donna Woods	Gladden Community House

Focus Groups

For the study, CRP also conducted a total of four focus groups with community residents/ healthcare consumers at local settlement houses in Franklin County:

1. Gladden Community House (10 participants), March 13, 2008
2. St. Stephens Community Center (15 participants), March 19, 2008
3. Southside Settlement House (14 participants), April 7, 2008
4. Neighborhood House (15 participants)[1], April 10, 2008

[1] The Neighborhood House focus group was conducted at Ottawa Ridge Apartments (1155 Noe Bixby Road), which is a housing facility administered by Neighborhood House