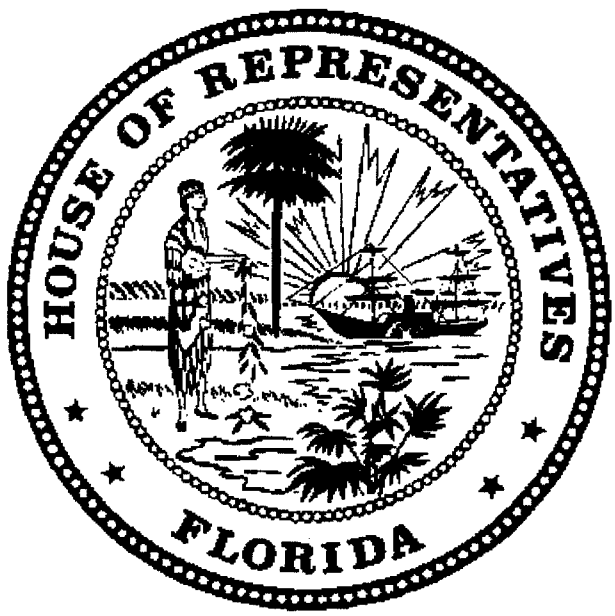


Health & Family Services Policy Council

Tuesday, December 8, 2009
8:00 AM - 10:30 AM
Webster Hall (212 Knot)

Larry Cretul
Speaker

Ed Homan
Chair

Council Meeting Notice

HOUSE OF REPRESENTATIVES

Health & Family Services Policy Council

Start Date and Time:	Tuesday, December 08, 2009 08:00 am
End Date and Time:	Tuesday, December 08, 2009 10:30 am
Location:	Webster Hall (212 Knott)
Duration:	2.50 hrs

Workshop on Medical Homes

NOTICE FINALIZED on 12/01/2009 16:04 by Alison.Cindy

The Florida House of Representatives

Health & Family Services Policy Council

AGENDA

December 8, 2009
8:00 AM – 10:30 AM
Webster Hall (212 Knott)

I. Opening Remarks by Chair Homan

II. Workshop on Medical Homes

Allen Dobson, M.D., Chairman of the Board
Carolinas Health Care System

Robert Brooks, M.D., Professor of Medicine
University of South Florida Medical School

Tom Arnold, Secretary
Agency for Health Care Administration

III. Closing Remarks

IV. Adjournment

1301 The Capitol, 402 South Monroe Street, Tallahassee, Florida 32399-1300
(850) 414-6692

Identifying and Quantifying the Cost of Uncoordinated Care: Opportunities for Savings and Improved Outcomes

Mary Kay Owens, R.Ph., C.Ph.,
President, Southeastern Consultants, Inc.,
Clinical Associate Professor, University of Florida College of Pharmacy
Department of Pharmaceutical Outcomes and Policy

Southeastern Consultants, Inc. (SEC) performed comprehensive claims analyses on over 9 million Medicaid only enrolled patients and Medicaid/Medicare dually enrolled patients for five large states, which included utilization and expenditure analyses of drugs and medical services, a disease profile of the population, and the identification of access patterns indicative of uncoordinated care in a subset of the population. SEC examined drug and medical utilization and costs attributed to these extremely uncoordinated care patients in an effort to supply policy makers addressing health care reform at the state and federal levels with compelling new data as to the importance of improving the coordination of care. In addition, SEC conducted statistical-based, predictive modeling to estimate future expected costs and created matched comparison groups to further evaluate estimated program savings following a multiple intervention approach to better coordinated care using a patient-centered, primary care medical home model with enhanced health information technology applications and provider incentive payment models.

Using the claims data, patients were separated into Medicaid only, dual eligibles and long term care subgroups and screened for patterns of uncoordinated episodes of care and the absence of a medical and pharmacy home. Patterns identified included utilizing excessive numbers of prescriptions, therapeutically duplicative drugs, frequently changing drug therapies, using multiple prescribers and multiple pharmacies concurrently and in random patterns, accessing the ER frequently and/or for non-emergent care, and numerous other access patterns indicative of uncoordinated care. The vast majority of identified uncoordinated care patients had at least one chronic condition.

Analysis Findings

1. **For the Medicaid only enrolled group, patients exhibiting patterns of extreme uncoordinated care represent a small percentage of all patients (10%), yet account for a significant percentage of program costs (30%).**

   - Uncoordinated care patients represented less than 10% of patients yet accounted for an average of 46% of drug costs, 32% of medical costs, and 36% of total costs for the population. **(Figure 1)**

2. **For the Medicaid only enrolled group, extreme uncoordinated care patients have significant differences in all cost service components, including lab, outpatient, emergency room, pharmacy, practitioner, and hospital services.**

   - Uncoordinated care patients had average annual total costs of $15,100 Vs $3,116 for those with better coordinated care in the remaining population. **(Figure 2)**

Figure 1

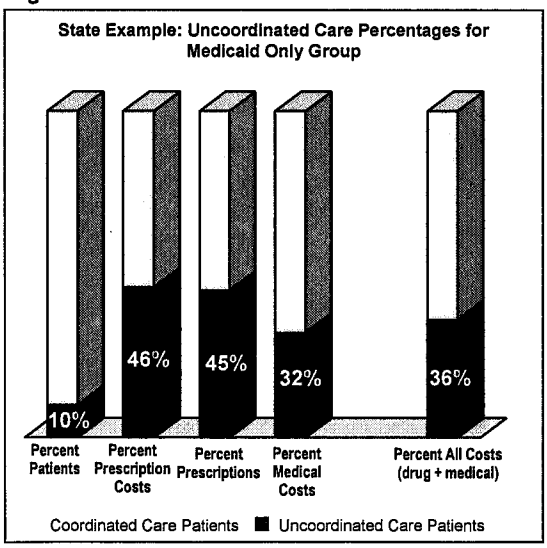
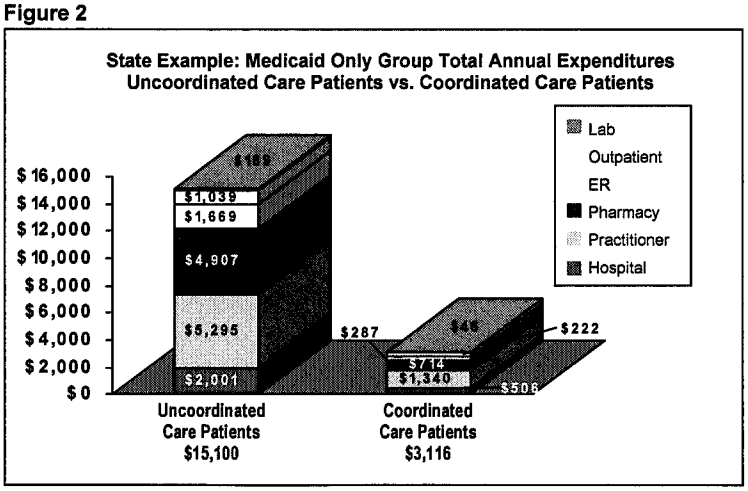


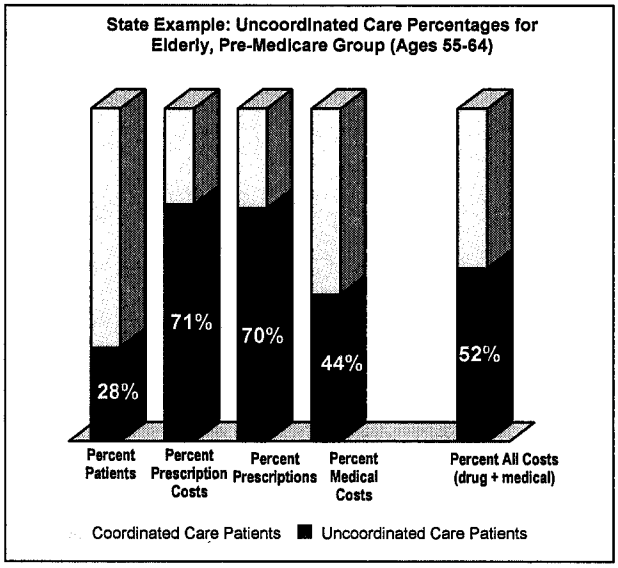
Figure 2



3. **For the subset of elderly (Pre-Medicare) patients aged 55-64 years old, those exhibiting patterns of extreme uncoordinated care represented about 28% of patients, yet accounted for a very large percentage of costs (52%).**

   - Uncoordinated care patients represented 28% of patients in that age group yet accounted for an astounding 71% of drug costs, 44% of medical costs, and 52% of total costs for that population. **(Figure 3)**

Figure 3



National Cost Savings Estimates

SEC analyses support average overall savings estimates of approximately 9% of the total direct medical and drug costs incurred per year.

The subset of the population with the most savings opportunities are those that are receiving extremely fragmented care and are accessing the system in a very inefficient and uncoordinated manner which in turn creates unnecessary costs and compromises quality of care for the entire system. These patients account for a disproportionate share of costs which averages approximately 30% of total plan costs. Based on multiple analyses completed, an average of 35% of the costs contributed by patients with extremely uncoordinated care should be avoidable with improved efforts of care integration, enhanced and targeted interventions, and coordination of care between providers. SEC extrapolated projected savings for the entire U.S. healthcare system by using National Health Expenditure (NHE) data for annual total health expenditure projections for the periods 2010 through 2018. The categories of NHE spending that were used mirrored the cost service categories used by SEC in the state level data and included direct care expenditures for hospital, professional, home health care, and medical products including drugs and excluded expenditures for administrative, nursing home care, structures and investments.

The projected annual savings were calculated using the NHE 2009 released data for the period 2010 through 2018. The total NHE annual projected expenditures were multiplied by a factor of 0.3 to obtain the total NHE annual expenditures attributed by patients with extreme uncoordinated care and then that total annual amount was multiplied by a factor of 0.35 to obtain the annual estimated savings to be achieved by reducing the excessive costs due to uncoordinated care. A phase in savings factor of 0.25, 0.50 and 0.75 was applied in each of the first 3 years (2010-2012) to allow for implementation of a program to identify and target these uncoordinated care patients and create the processes, procedures and financial incentives needed by plans and providers to cooperatively achieve the savings objectives.

Public Program Savings Estimates

SEC used the above methods and data sources from NHE to estimate the annual public program savings (Medicaid and Medicare). **The public program savings were calculated to be $133.5 billion on average per year for each year in the period 2010-2018.**

Total Public and Private Plan Program Savings

SEC used the above methods and data sources to also extrapolate the total national savings for both public and private health care spending. **The average savings for both public and private spending combined were calculated to be $240.1 billion on average per year for each year in the period 2010-2018.**

Methods

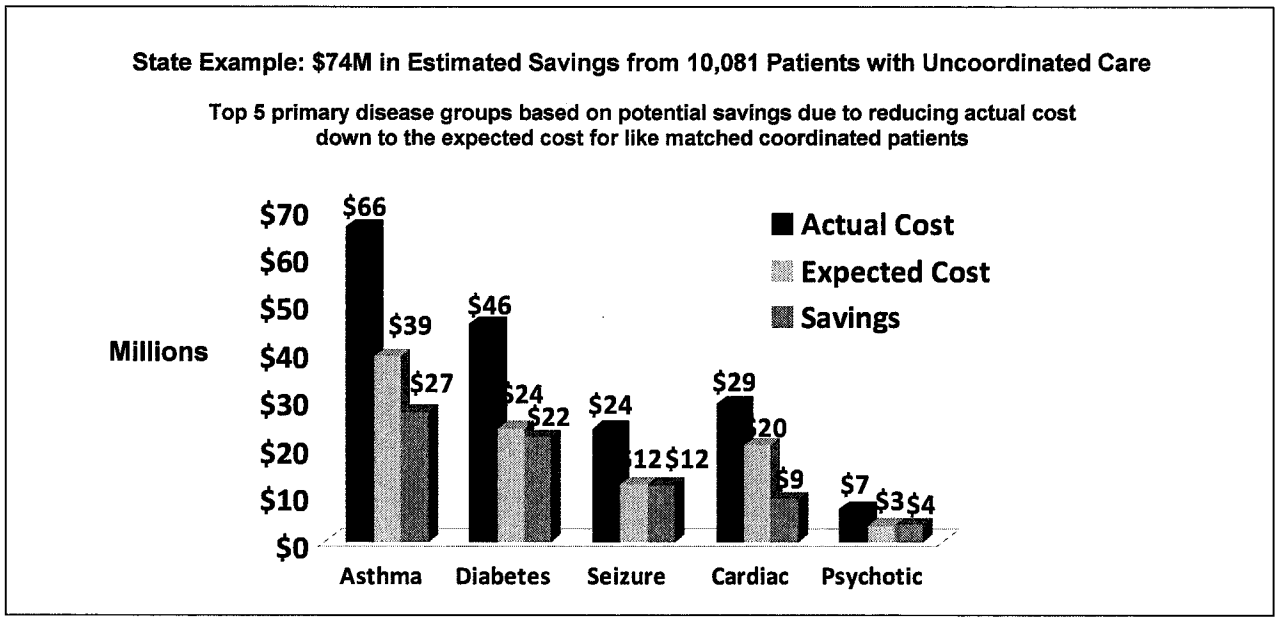
Various methods have been tested for calculating and estimating potential cost savings from better coordination of care. SEC has performed multiple regression analyses to test specific variables for their independent contribution to the overall cost. These included variables such as age, gender, severity of illness, number and type of chronic conditions. Other variables studied included numbers of prescribers, treating providers, dispensing pharmacies, and number and type of prescriptions utilized. Surprisingly, the variables that seem to be predictors of higher than expected total cost and thus are markers for identifying patients with the greatest savings opportunities were those that were correlated with episodes of uncoordinated care and treatment.

Variables with high significance included using excessive numbers of prescriptions, high numbers of different prescribing and treating physicians, utilizing a high number of different pharmacies, accessing the ER frequently and/or for non-emergent care, all of which contribute to unnecessary costs due to resulting usage of therapeutically duplicative drugs, inappropriate drug usage, drug compliance problems, frequently changing drug therapies, excessive and duplicative lab and diagnostic tests, excessive office visits and excessive and inappropriate utilization of all types of services.

In addition, SEC also created matched comparison groups with thousands of patients matched by age, gender, severity of illness scores, primary disease, and major co-morbid conditions to further evaluate the cost savings potential for patients that are extremely uncoordinated in their care and treatment when compared to like patients that are receiving better coordinated care. The results of these matched comparisons indicate there is significant potential savings available in the system if patients are provided more consistent and coordinated care from their providers.

- **Estimated cost savings for a Medicaid only matched comparison group of 10,081 uncoordinated care patients matched to 37,873 coordinated care patients by age, gender, primary disease, primary co-morbid disease and severity score (CCI) is $74M (43% of the total actual cost of $172M) or $7,340 per patient annual savings. (Figure 4)**

Figure 4



Recommended Strategies for Improving the Coordination of Care

Conduct baseline analysis

Private and commercial health plans should conduct a baseline claims analysis to identify patterns of uncoordinated episodes of care using defined criteria driven algorithms, create a disease profile of the entire population, and examine drug/medical utilization and cost components to risk stratify and characterize uncoordinated care patients by the specific contributing factors identified, such as therapeutic duplication, diagnostic service duplication, narcotic usage, ER frequency and types of visits, multiple treating providers, multiple prescribers, and multiple pharmacies providing care. Additional activities of the baseline analysis include mapping identified patients into geographic regions and to existing care providers to assist with planning and implementation of care coordination activities.

Evaluate and retool existing systems and programs

Plans should periodically evaluate and modify current technology, system edits, existing utilization review program criteria, and existing disease and care management programs to assess the efficiency and effectiveness of these programs and systems. Current utilization review programs, care management and audit/investigative programs are often not well coordinated with each other in terms of common criteria applied, procedures for referrals and follow-up, and a shared focus and intervention strategy specifically for an identified subset of patients that will generate the greatest return on investment.

Target and expand existing intervention programs for identified patients to improve care coordination

- Implement patient-centered "medical and pharmacy home" programs with focused and enhanced care management and medication therapy management programs
- Enhanced on-line utilization edits and real time claims monitoring systems for providers
- Disease and care management program interventions specifically for targeted uncoordinated care patients
- Patient education/incentive programs to improve compliance with treatment plans and coordination goals
- Emergency room diversion programs to redirect access to primary care providers

Integrate technologies to improve efficiency and patient outcomes

Technologies that are currently being implemented in many plans, such as electronic health information exchange systems, e-prescribing, and other web-based provider monitoring and communication tools, offer the best return on investment for patient and provider monitoring of service utilization, costs, and quality of care. Patients that are identified in the claims analysis as receiving uncoordinated care should be prioritized to receive focused interventions and their providers could be prioritized to receive allocations of new technologies and resources first, as part of a plan-wide effort or in regional pilot programs to expand medical and pharmacy home models of integrated care.

Develop new provider delivery and payment models

There must be a concerted effort to engage providers to be active participants in assisting patients with achieving coordinated care via new models such as medical and pharmacy homes. Engage stakeholders, such as hospitals, physician groups, pharmacists, patient advocates, and others to design care delivery and reimbursement models that create incentives for providers to assume enhanced patient management activities in a multidisciplinary team approach. Initially, resources should be focused on the identified, targeted uncoordinated care patients. Providers should be adequately compensated and encouraged to perform these added responsibilities, such as through increased care management fees, shared savings arrangements, medication therapy management fees, receiving enhanced practice management technology tools, pay for performance, and other appropriate incentives.

Conclusion

The findings from these comprehensive claims analyses provide compelling evidence that effective cost avoidance measures are readily available and should be implemented within existing state, federal and commercial program structures. Healthcare reform efforts must recognize and address the problem and significant costs of uncoordinated care if there are going to be "real" and "meaningful" changes to the healthcare delivery and payment

systems. Public and private health plans can reduce unnecessary expenditures due to uncoordinated care, preserving valuable resources without reducing appropriate access to care or needed services. These preserved resources can also be used for funding expansion programs for the uninsured and underinsured populations and improving the quality of healthcare for all citizens.

Mary Kay Owens is president and principal consultant for Southeastern Consultants, Inc. (SEC). She is a pharmacist and Clinical Associate Professor at the University of Florida College of Pharmacy, Department of Pharmaceutical Outcomes and Policy. mowens@sec-rx.com

Southeastern Consultants, Inc.
Pharmaceutical and Health Care Consulting and Data Services

3019 N. Shannon Lakes Drive, Suite 202 | Tallahassee, Florida 32309
Telephone (850) 668-8524 | Facsimile (850) 668-6587
www.sec-rx.com

Southeastern Consultants, Inc. is a national pharmaceutical and health care consulting and data analysis firm providing services to health plans, benefit managers, employer and provider groups, government agencies, associations, medical and pharmaceutical industry, disease management organizations, and academic institutions. For more information about SEC and their services, please visit the web site at www.sec-rx.com.

FL Medicaid plans' scores low

By Carol Gentry
4/3/2009 © Health News Florida

Florida pays managed-care plans $2.5 billion a year to make sure Medicaid patients in the state get taken care of properly, including getting their screenings, shots and other important preventive care on time.

But new research from 2008 shows Florida's Medicaid managed-care plans, while doing marginally better than in 2007, still fell significantly below the national average on standardized scores accepted by the industry.

as care for pregnant women, infants and the mentally ill -- Florida plans scored in the bottom 10 percent.

"Florida is lagging considerably behind the rest of the nation," says Richard Sorian, an authority on plan performance measurement at the National Committee on Quality Assurance in Washington, D.C. "There's nothing to brag about and several areas to be concerned about."

Overall, there was no sign that plans in the five pilot "Medicaid Reform" counties did any better than those elsewhere. In a few categories they did worse.

At the request of Health News Florida, Sorian and two instate experts separately reviewed the conclusions of the state's contractor, HSAG Inc. of Arizona, and other material on the Florida HEDIS scores, the industry standard for reporting on performance in managed care. HSAG's written report is expected this month (a spokesman for the company declined requests for interviews).

The views of the instate experts – Brady Augustine, president and CEO of Aggressive Analytics in Tallahassee, and Paul Duncan, chair of the University of Florida Department of Health Services Research, Management & Policy – were in line with Sorian's.

The plans "achieve relatively poor performance scores compared to national benchmarks," Duncan said.

Augustine called the results "underwhelming" and said he would have expected better, given that managed care has been developing in Florida for more than 20 years. He noted, however, that quality of care in Medicaid outside the plans could be similar or worse, since HEDIS scores apply only in managed care.

The Agency for Health Care Administration, Medicaid's parent agency in Florida, learned of the lackluster performance in late January in a PowerPoint presentation from the project manager at HSAG. It rang alarm bells.

AHCA offered no public release on the information, although AHCA Secretary Holly Benson's weekly e-newsletter mentioned that HEDIS scores were under review, that she was meeting with plans to "raise the bar" on performance and that "while we are a good team, we can be better."

But in private meetings with insurance executives, Benson reportedly lowered the boom.

"We clearly understood when we saw (the scores) they weren't acceptable to the state and weren't acceptable to us," said Michael Garner, president and CEO of the Florida Association of Health Plans. "We're determined to figure out what we need to do to get better."

He said the association has hired a private consulting firm, the Lewin Group, to study the data and advise the plans on whether they're accurate and how to improve them

AHCA Secretary Benson declined repeated requests from Health News Florida for interviews on this subject, citing the time pressure during the legislative session.

In a prepared statement sent via e-mail, AHCA said: "We believe in holding managed care plans accountable for serving our beneficiaries in ways that we formerly did not measure. We believe these measures are a starting point that exposed flaws in the reporting process and the need for improved service to our beneficiaries.

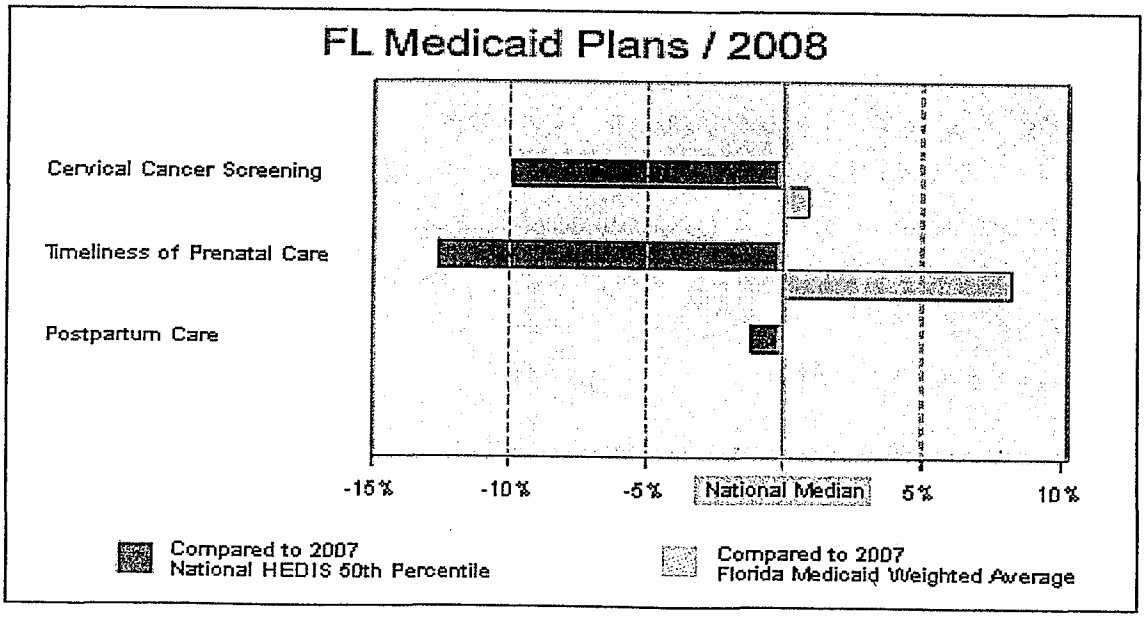
"We have set high standards for our plans, and now that we have data, we have asked the plans to develop corrective action plans and to invest in improving these scores.

"They responded with enthusiasm and are beginning to develop the steps they need to ensure that our beneficiaries get the kinds of outcomes we expect. In addition, we are working to develop ways to reward the high performing plans for the quality of care they deliver and to sanction low performing plans."

Sorian from the Committee for Quality Assurance said he wasn't surprised by the results, since his research on commercial health plans also reflected a lower performance in Florida than the nation as a whole.

The Deep South states as a region have the lowest scores in the country. "Florida has usually done better than the rest of the region," Sorian said, "but not much." More information on this is available at the NCQA's 2008 State of Health Care Quality report.

--Contact Carol Gentry by e-mail or at 727-410-3266.



CLASS ACTION SUIT OVER MEDICAID COVERAGE OF CHILDREN HEADED TO TRIAL

By JOHN KENNEDY
THE NEWS SERVICE OF FLORIDA

THE CAPITAL, TALLAHASSEE, Oct. 2, 2009.....Children's doctors and dentists have won a critical round

in their four-year-old fight with state officials over Florida's Medicaid program, which they maintain fails to properly serve at least 1.7 million children.

South Florida U.S. District Judge Adalberto Jordan has certified class-action status and set a Dec. 7 trial for the lawsuit filed in 2005 by the Florida Pediatric Society and Florida Academy of Pediatric Dentistry, which claim the state has failed to meet federal requirements that low-income children receive periodic health screening and routine dental checkups.

The medical groups maintain that 200,000 children eligible for the state-federal Medicaid program receive no benefits because Florida officials have failed to employ outreach programs. Another 1.5 million children enrolled don't receive the kind of coverage mandated by the federal government, the lawsuit contends.

"This has been worth waiting for," attorney Stuart Singer said Friday.

Singer, managing partner of the Boies, Schiller and Flexner law firm's Fort Lauderdale office, represents the medical groups that first filed suit against then-Gov. Jeb Bush's administration and the Agency for Health Care Administration.

"Florida has failed miserably in meeting regulations requiring preventative care for Medicaid children," he added. "But without this ruling, we wouldn't be headed to trial."

The ruling comes as Florida's $20 billion Medicaid program struggles with a $480 million deficit this year, with a $1.2 billion shortfall projected for the 2010-11 budget, according to state analysts.

The lawsuit, if successful, is certain to increase the program's red ink even more. Some 2.7 million low-income Floridians are already in the program, with enrollment spiking 13 percent this year as the punishing recession tightened its grip on the state.

AHCA had sought to have the case dismissed and argued that class-action status should not be granted. Agency spokeswoman Tiffany Vause told the News Service of Florida that AHCA was still "determining how it will proceed," following Wednesday's court ruling.

The lawsuit alleges that for more than a decade, close to half of the children enrolled in Medicaid "failed to receive even one of the health checkups that they were entitled to under federal law" and more than 75 percent receive no dental care.

The state also does not inform families of available health care services they are entitled to under Medicaid, sends families to HMOs that are too full to serve additional patients, and does not pay doctors and dentists rates that cover their expenses.

The lawsuit seeks higher reimbursement rates for doctors and dentists, arguing that will increase the number of providers accepting Medicaid beneficiaries.

The organizations are not asking the state to pay monetary damages – but, instead improve Medicaid services so they meet federal obligations.
--END--
10/2/2009

2007-08 SoonerCare Statistics

- **Percentage of state budget**: 11% (US average: 12-14%) in 2008
- **763,565 members** in 2007 (20% of population). 610,000 members in 2008 (17% of the population). *NOTE: American Indians comprise 11% of the state population; just 80k of 390k Indians are enrolled in Medicaid. Many more are eligible.*
- **CHIP** enrollment: 77% of those eligible

Attachment 1: SoonerCare Managed Care History & Performance (Waiver Evaluation, 2009)
Attachment 2: SoonerCare Fast Facts, July 2009
Attachment 3: SoonerCare Programs (enrollment data)

SoonerCare Outcomes – 2008 data

Monthly enrollee cost	**$44 pmpm** (vs. $67 in FL)
Physician contracts	90% of all providers enrolled
ER use	1.2 per office visit per year (from 2.85)
Preventable hospitalizations	Down 24%
RN care management for complicated patients and high ER users	Telephonic and home visits. 32 FTEs. 43% reduction in ER visits.
Health Management for high-need, high-cost enrollees	Uses MedAI predictive modeling and EHR. 2.5 FTEs. External vendor (Iowa Foundation for Medical Care) for physician proactive consulting on data collection and community resource links.
HEDIS process of care measures	Improvements between 18.65 and 36.7 percent. *Attachment 4: HEDIS Measures by Calendar Year 2001-2008*
HCAHPS patient satisfaction	Slightly below national benchmarks but by small margins
ECHO behavioral health patient satisfaction	70% could see providers quickly; over 80% cited good provider communications (no national benchmarks).

Medical Home Model

The OHCA defines the SoonerCare Medical Home model as a **financial model using fee-for-service reimbursement with patient coordination fees and provider incentive payments.** It was implemented in 2008.

> **"Without capitation, the Agency has unbundled services and is getting better value and accountability. Capitation had led to loose record keeping and claims."**
>
> *OHCA, September 2009*

Physician Medical Home Reimbursement & Incentives

- **All physicians** are reimbursed at 100% of Medicare (national average is 69%; FL is at 50%).
- **PCPs** are also eligible for incentive payments including a three-tiered medical home management structure and an inpatient management system. Over 60% of the PCPs receive Tier 3 (highest) reimbursement.
- **Urgent care** is reimbursed at 100% of Medicare plus an additional after-hours incentive based on a new Medicaid code (see Tiers).
- **Teaching faculty** (OU and OSU) are reimbursed at 140% of Medicare.

Attachment 5: *Provider Fast Facts*
Attachment 6: *Monthly Rate Schedule*
Attachment 7: *Care Coordination Fees*
Attachment 8: *Physician Inpatient Admitting and Visits (incentives)*
Attachment 9: *Tier 1 Entry-Level Medical Home Self-Evaluation Form*
Attachment 10: *Tier 2 Entry-Level Medical Home Self-Evaluation Form*
Attachment 11: *Tier 3 Entry-Level Medical Home Self-Evaluation Form*

Hospital Reimbursement

Payment for admissions is based on a prospective payment approach. OHCA currently uses the Medicare grouper 26 to classify hospital claims into DRG payments. OCHA rebases to the most current Medicare DRG grouper every January.

For each Medicaid recipient's stay, a peer-group base rate is multiplied by the relative weighting factor for the DRG that applies to the hospital stay. The result is the DRG payment to the hospital for the specific stay. In addition to the DRG payment, an outlier payment may be made to the hospital for very high cost cases.
For details, please go to:
http://www.okhca.org/providers.aspx?id=616&menu=74&parts=7675_7677_7679

SoonerCare 2008 Revenue Sources

Oklahoma is a low DSH state. FMAP rate: 67.10%. CHIP rate: 76.97%

Revenue Source	**Actual Revenues**
State Appropriations	$701.9m
Federal Funds – OHCA	$1.766b
Federal Funds of other state agencies	$515m
Refunds from other state agencies	$240.6m
Tobacco Tax	$87.5m
Drug Rebate	$86,6m
Medical refunds	$22.4m
Quality of Care Fees	$53.2m
Prior year carryover	$69.4m
Other revenue	$18.5m
Total Revenues	**$3.56b**

ACCESS II & III

COMMUNITY CARE OF NORTH CAROLINA

Community Care At a Glance

Leadership Works • Partnership Works • Innovation Works

Overview

Under the Community Care program (formerly known as Access), North Carolina is building community health networks that are organized and operated by community physicians, hospitals, health departments and departments of social services.

By establishing provider networks, the program is putting in place the local systems that are needed to achieve long-term quality, cost, access and utilization objectives in the management of care for Medicaid recipients.

Fourteen networks with more than 1,380 practices across North Carolina are working with their local health departments, hospitals, and social service agencies to better manage the care of 970,558 Medicaid & NCHC Enrollees.

Approach

How does the Community Care approach differ from other efforts? Community Care of North Carolina:

- Works directly with those community providers who have traditionally cared for North Carolina's low-income residents.
- Builds private and public partnerships where community providers can work together to cooperatively plan for meeting patient needs and where existing resources can be used most efficiently.
- Conveys responsibility for managing the care of a specific Medicaid population to a community network.
- Places responsibility for performance (and improvement) in the hands of those who actually deliver the care.
- Ensures that all funds are kept local and go to providing care.
- Puts in place the local networks that can manage all Medicaid patients and Medicaid services, and can address larger community health issues.

Savings

A recent actuarial study from Mercer Human Resource Consulting Group found, when comparing what the access model would have cost in SFY07, without any concerted efforts to control costs, the program saved approximately $147 million.

Network

Access Care (150 provider sites including UNC)

Access II Care of Western NC (Buncombe, Henderson, Madison, Mitchell, McDowell, Polk, Transylvania and Yancey)

Access III of Lower Cape Fear (Bladen, Brunswick, Columbus, New Hanover, Onslow and Pender)

Carolina Collaborative Community Care (Cumberland)

Carolina Community Health Partnership (Cleveland and Rutherford)

Northwest Community Care (Davie, Forsyth, Stokes, Surry, Wilkes, and Yadkin)

Community Care Partners of Greater Mecklenburg (Anson, Mecklenburg, Union)

Community Care of Wake and Johnston Counties (Wake, Johnston & Franklin)

Community Care Plan of Eastern Carolina (Beaufort, Bertie, Camden, Carteret, Chowan, Craven, Currituck, Dare, Duplin, Edgecombe, Gates, Greene, Halifax, Hertford, Hyde, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank, Perquimans, Pitt, Tyrrell, Washington and Wilson)

Community Health Partners (Gaston and Lincoln)

Northern Piedmont Community Care (Durham, Franklin, Granville, Person, Vance and Warren)

Partnership for Health Management (Guilford, Randolph and Rockingham)

Sandhills Community Care Network (Harnett, Hoke, Lee, Montgomery, Moore, Richmond and Scotland)

Southern Piedmont Community Care Plan (Cabarrus, Rowan and Stanly)

Community Care Networks

- Non-Profit Organization Comprised of Safety Net Providers
- Steering and Medical Management Committees
- Receive $3.00 PMPM from the State
- Manage Care of Medicaid Enrollees
- Hire Case Managers/Medical Management Staff

Key Elements

Community networks are putting into place the management tools that programs need to achieve improved performance:

- Implementing Best Practices
- Implementing Disease Management
- Managing High-Risk Patients
- Managing High-Cost Services
- Building Accountability

Clinical Improvement Initiatives

Physician leaders from participating networks come together to design and develop clinical improvement initiatives:

- Asthma Disease Management
- Congestive Heart Failure Disease Management
- Diabetes Disease Management
- Emergency Room Initiatives
- Pharmacy Management Initiatives
- Case Management of High Risk / High Cost Patients

Pilot Initiatives

- Aged, Blind, Disabled/Chronic Care
- Health Choice
- COPD
- Special Needs Children

Performance and Results

Asthma Disease Management *2000-2005*

- All practices adopted best practice guidelines from National Institute Health with expansion to 700 additional practices from 2002-2004.
- 28% increase in flu vaccines
- Over 90% of staged asthma patients on appropriate preventive medication.
- The Sheps Center Report estimated the asthma disease management program saved $3.5 million from 2000-2002 from lower inpatient admissions and emergency department visits.

Diabetes Disease Management *2000-2004*

- 10% increase in referrals for eye exams.
- 62% increase in flu vaccines.
- Continued Care visits are at 94%. Improved 7% since baseline.
- BP at every cc visit at 96%. Improved 8% since baseline.
- Foot exams are at 71%. Improved 18% since baseline.
- Lipid testing is at 77%. Improved 11% from 2004-2005.
- All practices adopted best practice guidelines from American Diabetes Association.
- The Sheps Center Report estimated the diabetes disease management program saved $2.1 million from 2000-2002.

Emergency Department Initiative *2001 – 2002*

- Care management follow-up, outreach and education on all enrollees with 3 or more visits to the ED in a six month period of time
- 30% lower per member per month cost
- 13% lower ED rate

Pharmacy Management Initiatives

Prescription Advantage List (PAL)

- 22% lower expenditures in PAL Pilot ($640,000 actual savings from February – March 2003)
- Rolled out statewide November 2003
- In 2004, cost savings from over-the-counter (OTC) prescribing estimated at $1.7 million

Nursing Home Polypharmacy

- Patients Reviewed – 9,208
- Recommendations Made – 8,559 (74% implemented)
- Physician / pharmacist team review drug regime and make recommendations to change prescriptions
- $6 million in cumulative savings since November 2002 (savings of $9 million estimated for 2004)

Case Management of High Cost/ High Risk

- Care management follow-up, outreach and education on recipients with $25,000 or more in Medicaid expenditures in six months period of time.
- Defining process to use DxCG predictive modeling to target individuals at greatest risk based on historical utilization and diagnoses.

ARIZONA MEDICAL HOME PILOT PROGRAM INVOLVES PRIVATE AND PUBLIC SECTORS

Volume 30, Issue 533 February 17, 2009

Anna C. Spencer

One of the nation's largest employers is joining forces with one of the nation's biggest health insurers to test the "medical home" model of care.

*On Feb. 9, the IBM Corp. and its insurer, UnitedHealth Group Inc., announced the launching of the "Patient-Centered Medical Home" (PCMH) in **Arizona**. The three-year initiative will involve 17,000 patients and seven medical groups across the state. Five hundred of those patients are IBM employees, while others are members of employer-sponsored Medicare Advantage plans, and still others are enrolled in Arizona's Medicaid plan—all of which are administered by UnitedHealth.*

The "medical home" theory supposes that by providing a home base for patients and coordinating their treatment, primary-care providers can improve the quality of care, prevent unnecessary visits to the emergency room and reduce hospitalizations—all of which will eventually reduce health-care costs.

"We know that everywhere you look around the world, where health care is grounded in primary care, people do better, have fewer complications and live longer," said Martín Sepulveda, vice president of integrated health services for IBM.

But modifying practices from the "fragmented way health care currently operates" to a more comprehensive and holistic manner of care won't happen overnight," Sepulveda added. "Enormous and profound changes need to be realized before we can ever achieve the financial and health benefits [of patient-centered care models]."

States Pioneered the Way

*The medical home can be viewed as a new version of the primary-care case management systems incorporated by many states into their Medicaid programs. Under primary-care case management, physicians are paid on a fee-for-service basis and receive a small monthly bonus per patient/per month. States that have adopted this model include **Alabama**, **Colorado**, **Illinois**, **Iowa**, **Massachusetts**, **Minnesota**, **North Carolina**, **Oklahoma**, **Oregon**, **Pennsylvania**, **Rhode Island**, **Vermont** and **Washington**.*

UnitedHealth will provide physicians with fee-for-service payments, as well as a quarterly management fee per patient and bonus payments, provided they meet certain nationally recognized quality measures and make process changes to their practices. Physicians can increase their overall revenue by as much as 30 percent under the bonus program.

Physicians will be encouraged to implement patient registries and E-prescribing capabilities, expand their hours of care and ensure that consultations with care professionals are available around the clock. To help doctors improve their patient management skills, UnitedHealth has hired consultants from the for-profit company TransferMed to support physicians. "Consultants are already on the ground (in Arizona), sitting in on their practices," said Eric Sullivan, director of the Patient-Centered Medical Home project with UnitedHealth.

UnitedHealth recognizes that investing in such changes to the system will cost money, and they are prepared to spend, rather than save, money during the pilot. But both UnitedHealth and IBM believe that over time, the team-based holistic approach will improve outcomes and costs will go down. IBM says in a document that a Medicaid medical home experiment in North Carolina saved the state $162 million in 2006.

Involving Small Practices

Most medical home programs have focused on large physician groups because they have more resources with which to make changes. But the PCMH includes both large and small practices. "It's all well and good to show that this works in a large practice, but the fact is most folks get their care from small practices," says Sepulveda (small practices are defined as 4 or fewer physicians). "The key is to be able to show that the patient-centered medical home works in any setting."

The pilot is also unusual in that it will focus on "a broad range" of patients rather than only those with chronic conditions, said Sullivan. "We are every bit as concerned with those who are well as we are with those who are at risk and those who already have chronic conditions," he added.

Whether medical homes will actually improve care and hold down costs is still controversial among policymakers. But large employers, consumer organizations, medical providers and others have become so intrigued that in 2006, they formed the Patient-Centered Primary Care Collaborative to advance the concept.

In the March 11, 2008 issue of the journal Health Affairs, researchers wrote that employers have tried everything from managed care to low-premium/high-deductible plans linked to health savings accounts in an effort to restrain rising health-care costs—but have found flaws in all those methods. Now, "employers are beginning to recognize that investing in the primary-care foundation of the health care system may help address their problems of rising health care costs and uneven quality," the researchers wrote. (Copies of the article as reprinted by Medscape may be found at http://medgenmed.medscape.com/viewarticle/568921.)

Denver Office
Tel: 303-364-7700 | Fax: 303-364-7800 | 7700 East First Place | Denver, CO 80230

Washington Office
Tel: 202-624-5400 | Fax: 202-737-1069 | 444 North Capitol Street, N.W., Suite 515 | Washington, D.C. 20001

The Patient-Centered Medical Home
Will It Stand the Test of Health Reform?

Diane R. Rittenhouse, MD, MPH
Stephen M. Shortell, PhD, MPH, MBA

THE FUNDAMENTAL CHALLENGE FOR HEALTH CARE REform in the United States is to expand access to all US residents, while rapidly reengineering the delivery system to provide consistently high-quality care at lower overall cost. Current reform discussions recognize that success will require a shift in emphasis from fragmentation to coordination and from highly specialized care to primary care and prevention.

One prominent model of delivery system reform is the patient-centered medical home (PCMH). Crafted by the primary care professional organizations in 2007, the model has been endorsed by a broad coalition of health care stakeholders, including all of the major national health plans, most of the Fortune 500 companies, consumer organizations and labor unions, the American Medical Association, and a total of 17 specialty societies.[1] Currently, 22 multistakeholder demonstration pilot projects are under way in 14 states, and the Centers for Medicare & Medicaid Services will conduct Medicare demonstration pilot projects in 400 practices in 8 regional sites in 2009.[2,3] Twenty bills promoting the PCMH concept have been introduced in 10 states.[4]

The 4 Cornerstones of the PCMH Model

The PCMH model is founded on 4 cornerstones: primary care, patient-centered care, new-model practice, and payment reform. Each is deemed essential for the success of the model, and each poses unique challenges.

Primary Care. The importance of primary care is based on decades of research demonstrating its role in producing improved outcomes at lower costs.[5] Primary care is defined in the PCMH model as comprehensive, first-contact, acute, chronic, and preventive care across the life span, delivered by a team of individuals led by the patient's personal physician. It also encompasses the essential primary care function of care coordination across multiple settings and clinicians.

Despite a strong evidence base, primary care faces many challenges. Graduates of US medical schools are not choosing to specialize in primary care, raising concerns about workforce capability in a system with an expanded reliance on primary care. New physicians' decreased interest in primary care careers coincides with increasing indebtedness for medical trainees, the ever-widening gap in salaries between primary care and specialist physicians, an exponential increase in primary care functions, and burnout among practicing physicians called on to deliver more and more services in less and less time.[6]

Nurse practitioners, physician assistants, and other health care professionals are well poised to provide many aspects of primary care, although these alternatives have met with some resistance within organized medicine and face inconsistent regulatory policies among states. More widely accepted is the notion of team-based care, in which physicians share responsibility with nurses, care coordinators, patient educators, clinical pharmacists, social workers, behavioral health specialists, and other team members. Although the role of well-trained primary care physicians to manage complex care for patients with multiple comorbid conditions is difficult to dispute, evidence is insufficient to inform current policy debates about the ideal staffing of a primary care practice.

Patient-Centered Care. The second cornerstone of the PCMH model is patient-centeredness, or the tailoring of care to meet the needs and preferences of patients. The PCMH model urges active engagement of consumers and patients at all levels of care delivery, ranging from shared decision-making to practice improvement. This involves a significant cultural change from viewing patients as passive recipients of information to being more active, prepared, and knowledgeable participants in their care. There is need for greater use of shared decision-making tools to assess patient preferences for different treatment options. Improving cultural competence among clinicians is critical.

In addition, the PCMH model emphasizes patient-centeredness in the broader sense, placing the patient at the center of the health care system by expanding access and improving options for patient-clinician communication, such as use of the Internet for electronic "visits." In this way, pro-

Author Affiliations: Department of Family and Community Medicine and Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco (Dr Rittenhouse); and Division of Health Policy and Management, School of Public Health, University of California, Berkeley (Dr Shortell).
Corresponding Author: Stephen M. Shortell, PhD, MPH, MBA, Division of Health Policy and Management, School of Public Health, University of California, Berkeley, Berkeley, CA 94720 (shortell@berkeley.edu).

vision of primary care can extend beyond the 4 walls of the traditional examination room and beyond traditional bankers hours, for a variety of patient populations.

New-Model Practice. The third cornerstone of the PCMH model, loosely defined as "new-model practice," represents a departure from 20th-century "business-as-usual" health care models. Building on innovations emerging from the relatively recent era of continuous quality improvement, patient safety, transparency, and accountability, 21st-century practices are called on to incorporate evidence-based processes of care, including population-based care management facilitated by patient registries, performance measurement and improvement, point-of-care decision support, and information technology. Certain aspects of this new-model practice are based on solid evidence; other aspects are too new to have been adequately studied.[7]

National data from 2006-2007 demonstrated that insufficient practice infrastructure exists to support widespread implementation of the PCMH model.[8] Generally speaking, early adopters were more likely to be large medical groups (greater than 140 physicians) and those owned by large entities with greater resources. In Massachusetts, increased PCMH capabilities were associated with large practice size and network affiliation.[9] Perhaps the greatest challenge to reform of the health care delivery system is that 32% of US physicians practice solo or in 2-person partnerships, and 60% practice in settings of 50 physicians or fewer.[10] Some of the physicians in these smaller practices are eager to implement change but lack the resources to do so. Others will choose retirement rather than transform their practice.

Specification of the correct mix of external incentives (eg, performance measurement and reporting requirements) and additional payment and internal practice support (eg, new staffing models, learning collaboratives, and clinical information technology) to stimulate widespread transformation remains elusive. The solution may lie in networking practices to form larger organizational entities with access to greater resources. A variety of different approaches have been proposed, including making use of existing hospital medical staff organizations, second-generation physician-hospital organizations, and virtual interdependent networks of physician practices.[11-13]

A key component of new-model practice is electronic clinical information technology. If introduced correctly, interoperable electronic health records (ie, those freely permitting data exchange between systems) can facilitate coordination, increase efficiency, and potentially improve health outcomes. If introduced without sufficient patience, planning, training, and resources, information technology will simply add cost to the system, clutter to practices, and frustration to isolated and overtaxed primary care clinicians. The Obama administration has invested $19 billion to stimulate the implementation of clinical information technology. Success hinges on doing so in a coordinated fashion, with the establishment of interoperability standards and adequate technical and other support for small and isolated physician practices.

Payment Reform. The final cornerstone of the PCMH model is payment reform. The model outlines a payment structure that combines fee-for-service, pay-for-performance, and a separate payment for care coordination and integration. The payment structure is explicitly intended to provide compensation for care coordination, care management, and medical consultation outside the traditional face-to-face visit. The model also calls for financial recognition of case-mix differences, the adoption and use of clinical information technology for quality improvement, savings from reduced hospitalizations, and the achievement of quality targets. Case-mix adjustment is particularly important, because practices functioning as PCMHs could attract patients with complex chronic illnesses and multiple comorbid conditions. These practices should be appropriately compensated to address such adverse selection.

Although paying primary care physicians for their services both within and beyond the office visit is essential, the size and nature of the incentives that will drive total practice transformation is not known. Payment reform may need to be more aggressive and comprehensive than proposed, including clear alignment of incentives between primary care physicians, specialists, and hospitals. Primary care cannot be addressed in a vacuum; ultimately, the focus should be on rewarding those who contribute to high-quality, cost-effective care across the continuum, regardless of specialty or venue.

Additional Challenges

Each of the 4 cornerstones of the PCMH model has its unique strengths and vulnerabilities. Three additional challenges to the success of the model must be considered. First, standard measurement criteria must be developed to designate practices that function as PCMHs. The National Committee for Quality Assurance (NCQA) has already provided leadership in this area. Building on its substantial experience with accrediting and certifying health care organizations, the NCQA has developed a voluntary program for PCMH recognition.[14] However, the initial NCQA standards have been criticized for overemphasizing the measurement of information technology infrastructure and inadequately crediting practices for delivering on other aspects of the model, such as developing continuous healing relationships and improving the patient experience. Developing measures of care that reflect experiences and relationships, rather than infrastructure and processes, presents an important challenge to the status quo in performance measurement and reporting. Multistakeholder involvement is required to develop standard measures that accurately represent the PCMH model so that the PCMH definition is not limited by existing measurement tools.

Another important challenge to the success of the PCMH model is public perception. For some, "medical home" sounds like a nursing home or evokes comments such as "first you go to the medical home, then you go to the funeral home."[15] In addition, primary care remains stigmatized by the "gatekeeper" image of the managed care era, and primary care physicians would be better framed more as personal physicians or navigators. Furthermore, any health reform effort in the United States that aims to decrease costs risks being perceived as restricting access to quality. Concerted educational and communication initiatives are needed that clearly describe the PCMH model using language and examples that resonate with the US public. The model then needs to deliver on its promises of delivering high-quality, coordinated care that is truly patient-centered.

Furthermore, the expectation of short-term cost savings may be unrealistic in many markets. Implementation of the PCMH model will require infrastructure investment and retooling in the primary care practice. It will require thousands of individual clinicians and practices to develop new business models and new staffing structures, to incorporate new tools and technologies, and to engage in new ways of working with health plans, consumers, and patients, while continuing the daily work of providing patient care. If savings are to be accrued under the PCMH model, they will come, for example, in decreased redundancies, decreased medical errors, decreased emergency department visits and hospitalizations for ambulatory care sensitive conditions, decreased rehospitalizations for patients recently discharged, and prevention of costly complications. Evaluation of the model will be key, allowing for sufficient time to elapse before drawing definitive conclusions. A criticism of current pilot demonstration evaluations is the pressure on researchers to demonstrate a business case, or lack thereof, in short order. In this regard, health care reform may do well to heed the lessons of the recent collapse of the financial sector: remaining too focused on short-term gains is alluring but in the end may prove foolhardy.

Conclusion

Marketplace and political realities will necessitate action on delivery system reform before evidence is available to determine the optimal course of action. Built on the 4 cornerstones of primary care, patient-centered care, new-model practice, and payment reform, the widely endorsed PCMH model has the potential to increase access and quality and to decrease the rate of growth in costs over time. As health care reform gains momentum, the strength of the PCMH model is about to be tested.

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Fax 850-414-6872

The Medical Home: Growing Evidence to Support a New Approach to Primary Care

Thomas C. Rosenthal, MD

Introduction: **A medical home is a patient-centered, multifaceted source of personal primary health care. It is based on a relationship between the patient and physician, formed to improve the patient's health across a continuum of referrals and services. Primary care organizations, including the American Board of Family Medicine, have promoted the concept as an answer to government agencies seeking political solutions that make quality health care affordable and accessible to all Americans.**

Methods: **Standard literature databases, including PubMed, and Internet sites of numerous professional associations, government agencies, business groups, and private health organizations identified over 200 references, reports, and books evaluating the medical home and patient-centered primary care.**

Findings: **Evaluations of several patient-centered medical home models corroborate earlier findings of improved outcomes and satisfaction. The peer-reviewed literature documents improved quality, reduced errors, and increased satisfaction when patients identify with a primary care medical home. Patient autonomy and choice also contributes to satisfaction. Although industry has funded case management models demonstrating value superior to traditional fee-for-service reimbursement adoption of the medical home as a basis for medical care in the United States, delivery will require effort on the part of providers and incentives to support activities outside of the traditional face-to-face office visit.**

Conclusions: **Evidence from multiple settings and several countries supports the ability of medical homes to advance societal health. A combination of fee-for-service, case management fees, and quality outcome incentives effectively drive higher standards in patient experience and outcomes. Community/provider boards may be required to safeguard the public interest. (J Am Board Fam Med 2008;21: 427–440.)**

"The better the primary care, the greater the cost savings, the better the health outcomes, and the greater the reduction in health and health care disparities."[1]

The term "medical home" was first coined by the American Academy of Pediatrics in 1967.[2] The American Academy of Family Physicians embraced the model in its 2004 Future of Family Medicine project[3] and the American College of Physicians issued a primary care medical home report in 2006.[4] The concept of the medical home has recently received attention as a strategy to improve access to quality health care for more Americans at lower cost.

In the medical home, responsibility for care and care coordination resides with the patient's personal medical provider working with a health care team.[5] Teams form and reform according to patient needs and include specialists, midlevel providers, nurses, social workers, care managers, dietitians, pharmacists, physical and occupational therapists, family, and community.[4] Medical home models vary but their success depends on their ability to focus on the needs of a patient or family one case at a time, recruiting social services, specialty medical services, and patient capabilities to solve problems.[6] In the United States primary care has been viewed largely as a discrete hierarchical

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Corresponding author: Thomas C. Rosenthal, MD, Department of Family Medicine, University of Buffalo, 462 Grider Street, Buffalo, NY 14215 (E-mail: trosenth@acsu.buffalo.edu).

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level of care. Recently, however, business organizations taking a systems approach to problem solving typical of industry have endorsed the concept of a personal primary care physician as an efficient strategy for delivering a broad range of services to consumers on an as-needed basis.[7,8] In its most mature form, a medical home may integrate medical and psychosocial services in a model more in concert with documented patient health beliefs.[9–11]

Most developed nations assure patient access to primary care physicians whose payments are, at least in part, based on guidelines and outcomes established by consumer/provider oversight. However, high utilization of technology and procedures in the United States have created the misperception that universal access to health care is too expensive, and some countries struggle to match Americans' access to procedures.[12] Unfortunately, the reliance on high technology and procedures has exposed Americans to adverse events and errors possibly related to overuse.[13,14]

Although many Americans are not certain about what constitutes primary care, they want a primary care physician.[15] They assume quality and appreciate technology but value relationship above all else.[16,17] Racial and ethnic disparities are significantly reduced for families who can identify a primary care provider who facilitates access to a range of health providers.[18] Urban and rural communities that have an adequate supply of primary care practitioners experience lower infant mortality, higher birth weights, and immunization rates at or above national standards despite social disparities.[19–22] This article reviews both the peer-reviewed literature and program evaluations of medical homes to assist primary care providers and health planners in assessing the usefulness of the model in their own communities and practices.

Methods

The outline and subtitles for this article are from the 2006 Joint Principles of the Patient-Centered Medical Home issued by the American Academy of Family Physicians, the American College of Physicians, and the American Academy of Pediatrics.[4] They have been used to facilitate the application of findings presented in this paper to policy development at the medical office and government levels.

PubMed was searched using "medical home" and "patient-centered care" as search phrases. The Internet sites of the Commonwealth Fund, the Center for Health Care Strategies, the State of North Carolina, the National Health Service of the United Kingdom, and Web sites were searched. US Family Medicine Department Chairs were surveyed by e-mail in October 2007 to expand the list of medical home evaluation studies. The American Academy of Family Physicians' Graham Center supplied their growing bibliography on the medical home concept. These sources led to secondary searches of cited literature and reports. More than 200 publications and several books were reviewed by the author. Articles were selected for citation if they offered original research, meta-analyses, or evaluation of existing programs. The unique characteristics of programs and variations in methodologies made meta-analysis at this level inappropriate. An annotated bibliography of cited references was circulated to members of the New York State Primary Care Coalition, the New York State Health Department, and members of the Association of Departments of Family Medicine for response and reaction. Some key thought pieces are referenced to assist readers who may use this for policy development.

Medical Home Principles

Table 1 summarizes several principles of medical homes and the quality of the literature supporting the principle.

Personal Physician

Each patient has an ongoing relationship with a personal physician trained to provide first contact and continuous and comprehensive care.[4]

Supporting Literature

When people become sick, they use stories to describe their experience. Patient-oriented care is bound up in the physician's ability to accurately perceive the essence of a patient's story.[31,32] Perception, or empathy, is enhanced by a doctor–patient relationship which, like any relationship, develops incrementally.[33] Relationships do not replace technical expertise and patients accept that quality specialty care often means being cared for by providers with whom they have a limited relationship.[34]

In primary care, a longitudinal relationship is an important tool to enlighten a personalized applica-

Table 1. Support for Medical Home Features: Quality of Literature

Recommendation	Evidence Rating	References	Comments
Patients who have a continuity relationship with a personal care physician have better health process measures and outcomes.	1	23, 34, 41, 47, 52	Continuity is most commonly associated with primary care, but cancer care, dialysis, and diabetes care are examples of specialty continuity.
Multiple visits over time with the same provider create renewed opportunities to build management and teaching strategies tailored to individual progress and receptivity.	2	24, 25, 38, 39, 46, 49, 54, 55	Neither primary care nor specialty care can meet their full potential if provided in a vacuum. All studies are challenged to evaluate any piece of the system in isolation from the context of specialty or other community services.
Minorities become as likely as non-minorities to receive preventive screening and have their chronic conditions well managed in a medical home model.	2	19, 20, 22, 26, 27	Rigorous program evaluations, secondary population analyses, and observational comparison studies show consistent findings.
In primary care, patients present at most visits with multiple problems.	1	06, 64, 65	The use of each office visit to care for multiple problems is a property of primary care.
Specialists generate more diagnostic hypotheses within their domain than outside and assign higher probabilities to diagnoses within that domain.	2	73, 74	The interface between primary care and specialty care needs further research.
The more attributes of the medical home demonstrated by a primary care practice, the more likely patients are to be up to date on screening, immunizations, and health habit counseling, and the less likely they are to use emergency rooms.	2	28, 29, 94, 95, 106, 107, 121	

1 = consistent, good quality evidence; 2 = limited quality, patient-oriented evidence; 3 = consensus, usual practice, expert opinion, or case series.[30]

tion of strategies that will achieve incremental improvements in health sustainable through the ever challenging events of life.[35,36] Specialty care can often be judged by how well something is done to the patient. Primary care is often best judged by how well the patient changes behavior or complies with treatment, activities the patient must do themselves. This difference becomes blurred in areas of chronic kidney disease (nephrologist), cancer care (oncologist), and diabetic management (endocrinologist) because of the long-term management relationship with the patient.

A relationship over time between patient and generalist also modifies resource utilization. A survey of physicians in Colorado by Fryer et al[37] demonstrated that in communities with high numbers of specialists or low numbers of generalists, specialists may spend 27% of patient contact time performing primary care services. Just as with anyone practicing outside of their area of comfort, this inevitability should raise concerns. Chart reviews of over 20,000 outpatient encounters by Greenfield[38] and 5,000 inpatient encounters by Weingarten[39] demonstrated that specialists practicing outside of their area of expertise order more tests and make more referrals than generalists.

Americans spend less time with a primary care physician than patients in countries with better health outcomes.[40] Yet, community-level studies indicate that availability of primary care lowers mortality.[41] The influence of primary care is second to socioeconomic conditions in lowering the frequency of strokes and cancer deaths.[42–45] In a study of 11 conditions, Starfield et al[46] found that patients had more monitoring of more parameters for all their conditions if they received care within a continuous primary care physician relationship as opposed to disease-specific specialty care.

Quality care is not solely dependent on insurance coverage. An analysis of administrative data in a Midwestern Canadian city with universal coverage documented that patients who had a continuous relationship with a personal care provider were more likely to receive cancer screening, had higher

vaccination rates, and had lower emergency department use.[47] In a critical review of the literature on continuity, Saultz and Lochner[34] analyzed 40 studies tracking 81 care outcomes, 41 of which were significantly improved by continuity. Of the 41 cost variables studied, expenditures were significantly lower for 35. Saultz and Lochner[34] concluded that the published literature could not reveal if patient satisfaction with a provider lead to continuity or if continuity lead to satisfaction, but findings were generally consistent with a positive impact on measured outcomes.

A Norwegian study determined that 4 visits with a provider were necessary for accumulated knowledge to impact use of laboratory tests, expectant management, prescriptions, and referrals.[48] Each visit in a continuous relationship renews an opportunity to build management and teaching strategies tailored to individual progress, receptivity, and capacity for compliance and change across the multiple medical conditions faced by many patients.[48] Gulbrandsen et al's[50] review of visits by 1401 adults attending 89 generalists demonstrated that continuity of care increased the likelihood that the provider was aware of psychosocial problems impacting health. Others[51–53] studied the impact of a primary care "gatekeeping" model's impact on Medicaid health management organization patients in Missouri and showed an increase of visits to primary care and fewer visits to emergency rooms, specialists, and nonphysician providers. Continuity has generally been shown to achieve quality at a lower cost.[54,55] In a qualitative analysis, Bayliss et al[56] concluded that patients with multiple comorbidities experienced barriers to self care, such as medication problems, chronic disease interactions, and adverse social and emotional environments requiring coordination of strategies across the comorbidities. Patients attribute health care errors to the breakdown of the doctor–patient relationship 70% of the time.[57]

Team-directed Medical Practice

A personal medical provider, usually a physician, leads a team of caregivers who take collective responsibility for ongoing patient care.

Supporting Literature

Eighty-seven percent of primary care physicians think an interdisciplinary team improves quality of care.[58] Separate studies of primary care offices in upstate New York and California, identified by their positive community reputation, found that all used a coordinated team model regardless of structure (private practice, community health center, hospital-owned). The practices either directly provided or coordinated a spectrum of services including social/behavioral services, rehabilitation, and coordinated specialty care.[10,59]

A team expands on the inherent limits in a 15-minute office visit during which demands for preventive care, chronic disease management, and new complaints compete.[60] Team care increases the contact points between patient and health care team and decreases the likelihood that acute complaints will distract providers from making appropriate adjustments in the care of chronic conditions.

Comprehensive patient management implies more than office visits. In one model a medical assistant measures vital signs and takes an interim history in the examination room then remains with the patient during the physician encounter and stays behind for a debriefing with the patient after the visit. The same assistant contacts the patient after the visit and before the next visit.[61] Phelan et al[63] found that a interdisciplinary geriatric team model screened for more syndromes and improved care at 12 months, although there was little significant improvement thereafter. Disease-specific team models produce good results for the focal disease but are less successful with comorbidities.[45] Multidisciplinary team care of disabled adults in sheltered housing shifted expenditures from unproductive repeat hospitalizations to personal care and increased outpatient visits.[63]

Whole-Person Orientation

The personal physician or provider maintains responsibility for providing for all of the patient's health care needs and arranges care with other qualified professionals as needed. This includes care for all stages of life: acute care, chronic care, preventive services, and end-of-life care.[4]

Supporting Literature

Family physicians manage 3.05 problems per patient encounter. They chart 2.82 problems and bill for 1.97. Ninety percent of patients have at least 2 concerns.[64] Patients over the age of 65 average 3.88 problems per visit and diabetics average 4.6.[65] In a study of 211 patient encounters, Parchman et al[66]

found that the number of complaints raised by patients tended to decrease the likelihood that a diabetic would have an adjustment made to a needed medication. Providers compensated by shortening the time to next visit by an average of 8.6 days.

By way of illustration, headache is often a secondary complaint in primary care. Only 3% of patients seen in a primary care office with a headache will have a computed tomography scan, and of these only 5% will have significant findings.[67] If the history and physical fail to raise suspicion of an intracranial process, headache patients are often treated according to symptoms and encouraged to return if symptoms do not resolve as expected while still receiving care for the primary chronic condition. Tactical options include follow-up contact by a member of the health team or earlier recheck.

The recheck plan for nonurgent conditions is a critical element of primary care. Continuity in the relationship establishes the mutual confidence needed for a watchful waiting or recheck strategy.[68] Whereas an immediate diagnostic work-up may quickly arrive at a specific diagnosis, a measured wait and see approach in the absence of "red flags" often confirms the initial impression. "Wait and see" has become a legitimate focus of research in otitis media and some pain syndromes.[69,70]

Care Is Coordinated and/or Integrated Across All Domains of the Health Care System

Modern health care presents several effective strategies for any single complaint, creating important options for diagnosis and treatment but also increasing the potential for overuse and confusion.[4]

Supporting Literature

The integration of primary care as an overarching approach to population health management is perhaps best elucidated by a discussion of care integration in a robust modern health care system. Medical homes should not function as entry-level care providers but rather as strategic access managers.

Back pain is a frequent primary care complaint. Patients with "red flag" orthopedic or neurologic complications need to be identified and urgently referred for specialty care. Most will require supportive care including pain relief, exercise, stretching, and physical therapy. A minority of patients who fail to respond still need help selecting a surgeon or a rehabilitation program and need guided readjustment to their workplace.[8] Fears and misunderstandings are the greatest threat to recovery but receiving an magnetic resonance imaging scan early in the course of back pain is more strongly associated with eventual surgery than are clinical findings.[71] The challenge is to meet the patient's need for management and order additional tests at the precise point in the course of illness to be productive.

The skills associated with specialty care must be learned in centers that see preselected patients with a high likelihood of needing specialty procedures. An intense experience essential for training predisposes toward overestimation of the likelihood of severe or unusual conditions in the general population and contributes to an overuse of diagnostic and therapeutic modalities.[72–74] Care across the continuum is more than access to procedures.

When generalist physicians are less available than specialists, specialists often refer secondary problems to other specialists. For example, after a myocardial infarction a patient may be referred by the cardiologist to an endocrinologist, pulmonologist, and a rheumatologist to manage the patient's long-standing diabetes, cardiac obstructive pulmonary disorder, and osteoarthritis. Specialists who feel unsupported by primary care services schedule more follow-up appointments, many of which duplicate services provided by the primary care physician.[73,75]

However, even in universal coverage societies like the United Kingdom, patients report greater satisfaction when they are able to access specialty care directly.[76] The lesson here is that medical homes should not become barriers to specialty access. The personal care team should facilitate referral to the most appropriate specialist at the appropriate time, consistent with patient concerns.

There is evidence to suggest that primary care involvement in a referral to another physician may improve quality. Children with tonsillitis who are referred by primary care physicians to surgeons have fewer postoperative complications than do children whose parents bypassed the primary care provider.[77] At Kaiser Permanente, primary care physician-facilitated referrals have lower hospitalization rates than do self referrals.[78] Primary care physicians who care for their hospitalized patients provide care that is as efficient as that provided by hospitalists.[76]

Mental health coordination is no different. Smith et al[80] reviewed the literature on management of patients with unexplained symptoms and psychosocial distress, concluding that 80% of these patients accept management by primary care physicians but only 10% will attend a psychosocial referral. When a referral is made, the primary care physician plays an important role in outcome success.[81] Full integration of primary medical care with mental health care improves outcomes in both arenas.[82–84]

Quality and Safety

Clinical excellence is enhanced by integration of information technology into medical practice and tracking of quality measures.[4]

- *Evidence-based medicine* and clinical decision support tools should be incorporated into practice.

Supporting Literature

One challenge to medical home evaluation will be establishing outcome measures that truly affect patient wellness. Specialists are good at adhering to guidelines within their field of expertise.[85–87] However, Hartz and James[88] reviewed 42 published articles comparing cardiologist to generalist care of myocardial infarctions and found that none of the studies took into account patient preferences, severity of comorbid disease, general health status, or resource availability. Confounding comorbidities, physical or behavioral, frequently exclude patients from the clinical trials that generate disease specific guidelines.[89,90]

Yet when primary care group practices systematically organize themselves to meet guideline standards they achieve equivalent outcomes.[91–93] It is a challenge to primary care that generalists perform better at meeting patient-centered guidelines such as exercise, diet, breastfeeding, smoking cessation, and the use of seat belts and less well at meeting disease-specific guidelines. However, patients who report having a continuous relationship with a personal care provider are very likely to receive evidence-based care.[94,95]

- Physicians will accept *accountability for continuous quality* improvement through voluntary engagement in performance measurement.

Supporting Literature

Public reporting of health care measures encourages physicians to meet benchmarks. The conundrum is that reporting variations does little to *explain* variations.[96] Fifty-five percent of generalists agree that patients should have access to performance data although there is little consensus yet on parameters.[58] Whereas the Healthplan Employer Data Information Set has more than 60 different measures (including immunizations, women's health, maternity care, behavioral health, and asthma), accuracy has been limited because the data are based on billing records. Efforts to collect data directly from the patient's primary care record have been piloted by the Wisconsin Collaboration for Health Care Quality but the lack of standard interoperability of records is challenging.[97]

Because continuity is central to patient satisfaction with, and the function of, a medical home, quality should be trended over time and include aspects of care that reflects functions of the whole team.[98] One model incorporates all office personnel (assistants, nurses, and providers) in interviews that identify perceived challenges to quality. Together the office staff and physicians rank priorities, brainstorm solutions, implement action, and monitor results.[99] The science of quality measurement in primary care is evolving and more research is needed. However, waiting for perfect measures should not delay implementation of good measures.

- *Patients actively participate* in decision making, including seeking feedback to ensure that patients' expectations are being met.

Supporting Literature

Only 36% of generalists and 20% of specialists survey their patients.[58] A recent survey of all primary care and ambulatory specialty physicians in Florida showed only modest advances in the adoption of e-mail communication, and little adherence to recognized guidelines for e-mail correspondence.[100] A study of 200 patients with rheumatoid arthritis who initiated their own follow-up found patients were significantly more confident and satisfied with their care and used fewer specialty services, including fewer hospitalizations, and saw their primary care physician as frequently as a matched control group for whom specialty care was more limited.[76] These findings again suggest that

the primary care physician's role as a gate opener and advisor may be more efficient than as a gatekeeper. Such a role requires effective communication.

- *Information technology* has potential to support optimal patient care, performance measurement, patient education, and communication.

Supporting Literature

Primary care is at a tipping point for implementation of electronic medical records. Twenty-three percent of practices currently use electronic medical records; another 23% would like to implement electronic records within the next year.[58] Electronic records have not yet automated collection of consultant reports and test results for patient visits. Eventually a system of health information management will network electronic records in offices, hospitals, and ancillary care centers within a well-protected national grid capable of managing huge amounts of data.[101]

A qualitative study of family medicine practices suggests that approximately a year after implementation, practices with electronic records initiate but struggle with effective tracking of clinical outcomes data.[102] At 5 years, practices with electronic records document more frequent testing of glycosylated hemoglobins and lipid levels but do not achieve better control.[103] High quality primary care groups find having an electronic medical record a useful tool but not essential to meeting guidelines.[104]

- Practices go through a *voluntary recognition* process by an appropriate nongovernmental entity to demonstrate that they have the capabilities to provide patient centered services consistent with the medical home model.

Successful implementation of the medical home model will necessitate recruitment of early adopting, high-performing practices that wish to be measured against benchmarks. During this period measures that lead to improved patient management can be identified and actual costs of care and savings demonstrated. Realistically, it will take years to roll out an evolution in health care of this magnitude and early innovators may be more highly motivated and successful than later implementers.[105]

- *Enhanced access* to care through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physician, and office staff.

Medical homes should be challenged to assure that patients have access to the right care at the right time in the right place, including the right specialty care. Many of these strategies are focused on viewing services from the patient's perspective, including extended hours and open access.[106–108]

E-mail or Internet-based communication promises to increase patient/physician interaction and interfere less with the patient's work schedule. To be embraced in health care, electronic communication will need to be reimbursed. Kaiser Permanente of Colorado is paying 95% of the CPT 99213 office visit fee for virtual office visits.[109] Internet-based portals are also available to provide secure communication.[110]

Demonstration Projects

Reorganization of primary health care in the United States may be reaching its own tipping point. In 2007 the UnitedHealth Group in Florida, CIGNA, Humana, Wellpoint, and Aetna began supporting primary care practices willing to incorporate quality improvement and active patient management in medical home systems.[111] North Carolina's Medicaid managed care program, North Carolina Community Care, offers a per-member/per-month management fee to physician networks that use evidence-based guidelines for at least 3 conditions, track patients, and report on performance.[112] By 2005 primary care practices realized $11 million in enhanced fees but generated savings of $231 million.[113] Erie County, NY, implemented a primary care partial capitation program in 1990 for Medicaid/Medicare patients with chronic disabilities, including substance abuse. A per-member/per-month management fee improved quality of care, decreased duplication, lowered hospitalization rates, and improved patient satisfaction while saving $1 million for every 1000 enrollees.[114] The Veterans Affairs Administration integrated information technology with a primary care-based delivery system for qualified Veterans and improved quality of care. It now costs $6,000 less per year to care for a veteran over the age of 65 than for a Medicare recipient.[115]

The Netherlands offers physicians incentives for efficiency, outcomes, and quality in a universal coverage model originally proposed for the United States.[116] Everyone must purchase basic community-rated health insurance through private insurers. The plan has improved compensation for primary care services and has improved distribution of services into previously underserved communities.[117,118]

In 2001, the United Kingdom's National Health Service contracted with general practitioners to provide medical home services to patients. By 2005 these contracts had improved quality of care.[119] The rate of improvement further accelerated when financial incentives were added in 2005.[105,120]

Limitations of This Review

Primary care practices are very complex. Each practice has a philosophy, style, and culture within which physicians and staff deliver patient care.[121] Any review of the medical home should be balanced by a concern that many practices already feel burdened by existing work demands and perceive little capacity to accept new responsibilities in patient care. Measuring outcomes further adds to the workload and may not be successful in unmotivated practices.[122] It is possible that placing additional responsibilities on a primary care visit may actually interfere with secondary detection of conditions such as skin cancers or depression.[123–125]

Finally, there are limitations in the methods used in this review. The quality of each study was subjectively determined and could not be analyzed in the aggregate because most studies and evaluations used different interventions and approaches to data collection. Studies often reflect unique characteristics of providers and patients in incomparable settings. Generalizations are possible only in light of the consistency of the conclusions drawn by a large body of work.

Reimbursing the Medical Home

Institutionalizing the medical home as the foundational approach to health delivery strategy in the United States will require a reformulation of reimbursement policy. Overall, the average salary of American physicians is 7 times greater than that of the average American worker. Primary care physicians in the United States earn 3 times the average worker's income. In most of the industrialized world the overall physician-to-average worker income ratio is 3:1.[126] The Centers for Medicare and Medicaid Services' (CMS) Resource-Based Relative Value Scale, designed in 1992 to reduce inequality between fees for primary care and payment for procedures, has failed. As structured, the committee that advises CMS has 30 members, 23 of whom are appointed by medical specialty societies.[127] This group has tended to approve procedural services resulting in increased revenues for procedural specialties.[128] Between 2000 and 2004, primary care income increased 9.9% whereas specialty incomes rose 15.8%.[129] A 2007 effort to increase primary care reimbursement improved payments by 5%, not the 37% projected by Medicare.[130]

Compounding these salary discrepancies, 40% of the primary care work load (arranging referrals, completing forms, communicating with patients, emotional support, and encouragement) is not reimbursed by a face-to-face fee-for-service methodology.[131] A sophisticated payment system would support team care, health information technology, quality improvement, e-mail and telephone consultation, and be adjusted by case mix.[132]

Where Will the Money Come From?

The need for change in the reimbursement structure has even reached the popular press. Consumer Reports blames reimbursement policies for the overuse of 10 common procedures, concluding that the US payment system discourages counseling, care coordination, and evidence-based assessment.[133] A primary care-based system may cost 30% less[134] because patients experience fewer hospitalizations, less duplication, and more appropriate use of technology.[75,135] Case-adjusted rates of hospitalizations for heart disease and diabetes are 90% higher for cardiologists and 50% higher for endocrinologists than for primary care physicians.[38,136] Even acute illnesses, such as community-acquired pneumonia, cost less for equivalent outcomes when managed by a primary care physician.[137]

Federally funded Community health centers form the largest network of primary care medical homes in the United States. In 2005 the average cost of caring for a patient in a community health center was $2,569 compared with $4,379 for the general population.[138]

Variations in expenditures from one community to another also suggest opportunities for reducing

expenditures while preserving quality. New York State and California spend over $38,000 per Medicare recipient in the last 2 years of life compared with Missouri, New Hampshire, and North Carolina, where expenditures are below $26,000.[139] If half of the expenditure variation could be captured, there would be adequate resources to provide uninsured Americans with a personal physician in a patient-centered medical home.[134xrefx]

Improved quality will also cut expenditures. An analysis by Bridges to Excellence estimated that maintaining the glycohemoglobin at 7 in a diabetic patient saves $279 a year in health costs per patient. Keeping a diabetic's low-density lipoprotein below 100 saves $369 per year, and keeping the blood pressure below 130/80 saves $494. Keeping all measures at target saves $1,059 per patient per year.[140]

Reimbursement Models

Medical practices are business entities. Rewards for change must exceed the cost of change.[141,142] A 3-component fee schedule considered by the American Academy of Family Physicians, the American Academy of Pediatrics, and the American College of Physicians would consist of (1) a fee for service (per visit); (2) a monthly management fee for practices contracting to provide medical home services; and (3) an additional bonus for reporting on quality performance goals.[143,144]

Maintaining *fee-for-service* reimbursement supports provision of essential face-to-face services. However fee-for-service reimbursement should be broadened to embrace e-mail or Web-based virtual office visits, perhaps pegging them to some proportion of a routine office visit.[109]

A *per-member/per-month management fee* for Medicaid patients with or without chronic disease was enough to trigger case management and quality reporting in the North Carolina Medicaid program.[112] In one upstate New York county the enhanced management fee for patients with both mental and physical health problems approximates $10 per member/per month.[114] Other models have paid fractional fees for specific activities such as chronic disease registries, guideline implementation, and outcomes tracking. A capitation of $5.50 per member/per month ($66 per year) is roughly half of the $110 per year savings projected by the Bridges to Excellence project for well persons enrolled in a medical home.[140] The fee would be expected to support physician management time, outcomes reporting, electronic record maintenance cost, and a full-time professionally trained case manager. Enhanced services include patient education, telephonic case management, and improved patient access.

The *quality incentive* is a pay-for-performance fee that recognizes achievement of standards of care. HMOs have traditionally relied on claims data for tracking billed procedures. The patient record is more accurate but will require new resources to harvest.[145] When paid at 3-month intervals, quality incentives are frequent enough to trigger continuous improvement efforts but spaced sufficiently to reflect impact of changes. Observation studies have confirmed that practices add staff, install electronic records, and network with community agencies to be eligible for incentives.[105,144] To be effective, criteria must be measurable, based on evidence, and amenable to medical management. Both the measures and incentives must be chosen and incentivized with care to assure providers do not simply deselect complex patients, for it is the complex patients who have the most to gain in a medical home environment.[146] Eventually, public reporting of physician data will facilitate greater patient participation and trust.[147] Studies for as long as 6 years show that appropriately selected incentives can maintain physician satisfaction, patient satisfaction, and long-term performance.[148] Incentives also reinforce the office team structure.[149]

Oversight is essential to the ultimate success of a patient centered medical home system of care. The United Kingdom established the National Institute for Health and Clinical Excellence to manage incentives and define objectives of their health system. Using full-time investigators, National Institute for Health and Clinical Excellence publishes and updates clinical appraisals on efficacy. Oversight of National Institute for Health and Clinical Excellence is provided by a board of health professionals, patients, and employers.[150]

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[focus on ... health]

Care method reallocates doctors' time

The emerging "medical home" model focuses on prevention and chronic conditions.

Chicago Tribune

CHICAGO » Set aside your frustration with your doctor: the long waits for an appointment, the hurried visits, the sense that there's never really time to talk in depth.

Now imagine this: The phone rings and it's the doctor's office reminding you that it's time for your flu shot and to have your cholesterol levels tested.

"Oh, and Mrs. Smith, I know you have diabetes," the nurse continues. "How is everything going? Do you need anything from us?"

A week later, there's an e-mail from your physician on your BlackBerry. "Mrs. Smith, I adjusted your medications at our last visit. If you're having any side effects, please call," he writes.

This may seem like a fantasy, but in fact it's a new model of care known as a "medical home" emerging across the country. Think of it as primary care on steroids, devoted to prevention and to helping people with chronic conditions such as asthma or arthritis manage their illness.

In its ideal form, a doctor oversees a team of nurses, physicians' assistants and health coaches who ensure patients get needed care, support and education. That frees the doctor to focus on compelling medical issues.

The model is expanding locally, with Illinois' largest insurer launching a pilot program.

Last month, Medicare — the government's giant health program for seniors — announced a similar initiative.

A pioneer in this field is Group Health Cooperative, a Seattle health maintenance organization that plans to convert 26 clinics in Washington and Idaho to medical homes.

The HMO's pilot program, begun in early 2007, reduced emergency room visits by 29 percent and hospitalizations by 11 percent while improving quality of care, according to a September report in the American Journal of Managed Care.

How does Group Health do it? To start, doctors are assigned 1,800 patients, as opposed to 2,400 previously. That makes longer visits possible for patients who need more time, said Michael Erikson, vice president of primary care services.

Days before a patient comes in for an appointment, a medical assistant checks to see whether he or she is due for any tests or preventive services. If so, those procedures are ordered so the doctor will have results in hand during the appointment.

Whenever a patient goes to the ER or is hospitalized, a nurse follows up with a call the next day.

If a patient calls between office visits, a nurse responds within 24 hours. If the question can't be settled then, she'll call back within 45 minutes, Erikson said.

Doctors expand access to care by scheduling at least two phone visits with patients each day and routinely contacting patients via e-mail.

For medical homes to work, the way doctors are paid has to change fundamentally, said David Swieskowski, chief executive of the Mercy Clinics of Des Moines, Iowa, which has adopted the model.

Doctors also aren't accustomed to working in teams and being held accountable for results, such as how many diabetic patients have blood sugar adequately controlled.

Meanwhile, physicians' offices need to be able to track which patients are overdue for appointments and which haven't received recommended services.

Yet most doctors' offices still don't have electronic records.

Despite these barriers, interest in medical homes is expanding.

Medical Homes
Comparison Chart for North Carolina, Oklahoma & Florida

September 28, 2009

	NORTH CAROLINA	OKLAHOMA	FLORIDA
STATE INFRASTRUCTURE			
Program Name	Community Care Networks of NC	SoonerCare	Florida Medicaid
Governance	▪ 14 non-profit, 501c3 CCNs operated by Office of Rural Health & Community Care, under NC Dept. of Health & Human Services. ▪ Networks developed as alternative to capitated managed care. ▪ Operated by physicians, hospitals, health depts. & social services depts. ▪ Networks have program director, part-time medical director and case management team.	▪ Freestanding state agency: Oklahoma Health Care Authority established in 1993. Seven-member Board appointed by the Governor (3), Speaker (2) and Senate (2). ▪ Strong CEO model. ▪ OHCA has submitted a waiver modification for NC-like Care Networks in rural areas.	Medicaid agency reports to AHCA, which reports to the Governor.
Hospital CON Law	Yes	No	Yes
Small Business & Individual coverage plan	N/A	"Insure Oklahoma" is subsidized Medicaid buy-in program (tobacco tax).	N/A
	NORTH CAROLINA	OKLAHOMA	FLORIDA
DEMOGRAPHICS			
Total Population	9.2 m	3.6 m	18.3 m
% Unemployment	11.1%	6.4%	10.7%
% Uninsured	21.2%	15.9%	10.7%
Number of people enrolled in Medicaid	913,000	651,777	2.7 m
% of population enrolled in Medicaid	9.95%	17%	14.7%
% of Medicaid enrollees in Medical Homes	80%	100%	N/A

	NORTH CAROLINA	OKLAHOMA	FLORIDA
MEDICAID FINANCIAL DATA			
Total Medicaid Expenditures	$10.49 b	$3.56 b	$17.95 b
Medicaid % of state budget	23%	11%	26%
FMAP % (2008 data)	66.05%	67.1%	56.8%
CHIP % (2008 data)	74.5%	76.97%	71.2%
% of Managed Care penetration	30%	None. All HMO contracts discontinued in 2004.	63%
% of Fee-for-Service	30%	100%	37%
Total % of Physicians who take Medicaid		90%	
% of Primary Care physicians who take Medicaid	50%	40%	
	NORTH CAROLINA	OKLAHOMA	FLORIDA
MEDICAL HOME MODEL			
Structure	▪ PCP with emphasis on care coordination, disease and care management, and quality improvement. ▪ Networks contract with physicians, case managers, hospitals, social service agencies and county health departments.	▪ Financial model using fee-for service reimbursement with patient coordination fees & provider incentive payments. ▪ Care Management limited to high users. ▪ Contracts with physicians and hospitals. ▪ Case managers are internal. ▪ No county health dept. contracts.	N/A
% of Medicaid Enrollees in Medical Homes	74%	100%	N/A
Medical home services	▪ Acute, chronic and preventive. ▪ Chronic disease education & management ▪ Focus on asthma and diabetes.	▪ Acute, chronic and preventive. ▪ Chronic disease education & management. ▪ Focus on diabetes.	N/A
Specialty care coordination	Yes	Unclear	N/A
Data system for Quality measurement	Yes	Yes	N/A
Evidence-based best practices	Yes	Yes	N/A

	NORTH CAROLINA	OKLAHOMA	FLORIDA
MEDICAL HOME REIMBURSEMENT & INCENTIVES			
Medicaid Hospital Reimbursement Rates	DRG rates	IPPS DRGs with Medicare grouper 26. Formula: peer-group base rate x relative DRG weight. Annual rebasing. Some outlier payments.	
Medicaid Physician Reimbursement (US average: 69% of Medicare)	95% of Medicare	100% of Medicare. Teaching faulty receive 140% of Medicare.	63% of Medicare
PCP Medical Home Incentives	See Incentive: Care Coordination	Three-tiered Medical Home payment system based on services provided. 60% of PCPs are at Tier 3 (highest). $2-3 pmpm.	N/A
Incentives: Urgent Care	N/A	Tier 3 incentives for extended hours using new Medicaid code.	N/A
Incentive: Care Coordination	Networks receive $2.50 pmpm.	Tier-based. $3.03-$6.19 pmpm for children. $4.47-8.69 pmpm for adults.	N/A
Incentive: 24/7 Access	24/7 on-call assistance by all providers	24/7 telephone coverage with immediate access to on-call medical professional: $0.50 pmpm.	N/A
Incentive: Inpatient Care	N/A	▪ PCPs who admit/visit IPs receive 25% of procedure code. ▪ Qualified PCPs who admit/visit members on their panels receive additional $20 per admit/visit.	N/A
Incentive: Electronic Communication from state	N/A	$0.05 pmpm	N/A
Incentive: Practice Innovation	$2.50 pmpm	N/A	N/A
	NORTH CAROLINA	OKLAHOMA	FLORIDA
CARE MANAGEMENT STRUCTURE			
RN Care Management (?)	Medical Homes have care managers. Pmpm incentives.	Telephonic and home visits for 5,000 patients. 32 FTEs	N/A
Health Management	Medical Homes have care managers. Included in pmpm incentive.	External vendor (Iowa Fdtn. For Medical Care) uses MedAI predictive modeling for 1,000 high-cost, high-need patients. 2.5 FTEs.	N/A

	NORTH CAROLINA	OKLAHOMA	FLORIDA
CARE MANAGEMENT OUTCOMES			
Total Cost Savings	$150-170 million in FY 2006	See below	N/A
ER Use	23% less than projected	Down 43% from 2003-2008. Top 5% of high ER users dropped from 1.26 ER visits per office visit per year in 2003, to .74 ER visits.	N/A
OP care	25% less than expected	Not measured	N/A
Preventable hospitalizations	Down 34%	Down 24%	N/A
Asthma	21% increase in staging	Not measured	N/A
Pharmacy	11% less than expected	Not measured	N/a

incurred by the contracting entity; or

(b) Where the entity's performance and obligations are guaranteed in writing by a guaranteeing organization which:

1. Has been in operation for at least 5 years and has assets in excess of $50 million; or

2. Submits a written guarantee acceptable to the agency which is irrevocable during the term of the contracting entity's contract with the agency and, upon termination of the contract, until the agency receives proof of satisfaction of all outstanding obligations incurred under the contract.

Section 17. Section 409.91207, Florida Statutes, is created to read:

409.91207 Medical Home Pilot Project.—

(1) The agency shall develop a plan to implement a medical home pilot project that utilizes primary care case management enhanced by medical home networks to provide coordinated and cost-effective care that is reimbursed on a fee-for-service basis and to compare the performance of the medical home networks with other existing Medicaid managed care models. The agency is authorized to seek a federal Medicaid waiver or an amendment to any existing Medicaid waiver, except for the current 1115 Medicaid waiver authorized in s. 409.91211, as needed, to develop the pilot project created in this section but must obtain approval of the Legislature prior to implementing the pilot project.

(2) Each medical home network shall:

(a) Provide Medicaid recipients primary care, coordinated services to control chronic illness, pharmacy services, specialty physician services, and hospital outpatient and

inpatient services.

(b) Coordinate with other health care providers, as necessary, to ensure that Medicaid recipients receive efficient and effective access to other needed medical services, consistent with the scope of services provided to Medipass recipients.

(c) Consist of primary care physicians, federally qualified health centers, clinics affiliated with Florida medical schools or teaching hospitals, programs serving children with special health care needs, medical school faculty, statutory teaching hospitals, and other hospitals that agree to participate in the network. A managed care organization is eligible to be designated as a medical home network if it documents policies and procedures consistent with subsection (3).

(3) The medical home pilot project developed by the agency must be designed to modify the processes and patterns of health care service delivery in the Medicaid program by requiring a medical home network to:

(a) Assign a personal medical provider to lead an interdisciplinary team of professionals who share the responsibility for ongoing care to a specific panel of patients.

(b) Require the personal medical provider to identify the patient's health care needs and respond to those needs either directly or through arrangements with other qualified providers.

(c) Coordinate or integrate care across all parts of the health care delivery system.

(d) Integrate information technology into the health care delivery system to enhance clinical performance and monitor patient outcomes.

(4) The agency shall have the following duties, and responsibilities with respect to the development of the medical home pilot project:

(a) To develop and recommend a medical home pilot project in at least two geographic regions in the state that will facilitate access to specialty services in the state's medical schools and teaching hospitals.

(b) To develop and recommend funding strategies that maximize available state and federal funds, including:

1. Enhanced primary care case management fees to participating federally qualified health centers and primary care clinics owned or operated by a medical school or teaching hospital.

2. Enhanced payments to participating medical schools through the supplemental physician payment program using certified funds.

3. Reimbursement for facility costs, in addition to medical services, for participating outpatient primary or specialty clinics.

4. Supplemental Medicaid payments through the low-income pool and exempt fee-for-service rates for participating hospitals.

5. Enhanced capitation rates for managed care organizations designated as medical home networks to reflect enhanced fee-for-service payments to medical home network providers.

(c) To develop and recommend criteria to designate medical home networks as eligible to participate in the pilot program and recommend incentives for medical home networks to participate in the medical home pilot project, including bonus

payments and shared saving arrangements.

(d) To develop a comprehensive fiscal estimate of the medical home pilot project that includes, but is not limited to, anticipated savings to the Medicaid program and any anticipated administrative costs.

(e) To develop and recommend which medical services the medical home network would be responsible for providing to enrolled Medicaid recipients.

(f) To develop and recommend methodologies to measure the performance of the medical home pilot project including patient outcomes, cost-effectiveness, provider participation, recipient satisfaction, and accountability to ensure the quality of the medical care provided to Medicaid recipients enrolled in the pilot.

(g) To recommend policies and procedures for the medical home pilot project administration including, but not limited to: an implementation timeline, the Medicaid recipient enrollment process, recruitment and enrollment of Medicaid providers, and the reimbursement methodologies for participating Medicaid providers.

(h) To determine and recommend methods to evaluate the medical home pilot project including but not limited to the comparison of the Medicaid fee-for service system, Medipass system, and other Medicaid managed care programs.

(i) To develop and recommend standards and designation requirements for a medical home network that include, but are not limited to: medical care provided by the network, referral arrangements, medical record requirements, health information technology standards, follow-up care processes, and data

collection requirements.

(5) The Secretary of Health Care Administration shall appoint a task force by August 1, 2009, to assist the agency in the development and implementation of the medical home pilot project. The task force must include, but is not limited to, representatives of providers who could potentially participate in a medical home network, Medicaid recipients, and existing Medipass and managed care providers. Members of the task force shall serve without compensation but are entitled to reimbursement for per diem and travel expenses as provided in s. 112.061.

(6) The agency shall submit an implementation plan for the medical home pilot project authorized in this section to the Speaker of the House of Representatives, the President of the Senate, and the Governor by February 1, 2010. The implementation plan must include any approved waivers, waiver applications, or state plan amendments necessary to implement the medical home pilot project.

(a) The agency shall post any waiver applications, or waiver amendments, authorized under this section on its Internet website 15 days before submitting the applications to the United States Centers for Medicare and Medicaid Services.

(b) The implementation of the medical home pilot project, including any Medicaid waivers authorized in this section, is contingent upon review and approval by the Legislature.

(c) Upon legislative approval to implement the medical home pilot project, the agency may initiate the adoption of administrative rules to implement and administer the medical home pilot project created in this section.

L. Allen Dobson Jr., MD, FAAFP
PERSONAL BIOGRAPHY

L. Allen Dobson Jr., M.D. is a native of North Carolina and received his undergraduate education at North Carolina State University. He attended medical school at Bowman Gray School of Medicine at Wake Forest University and completed his residency in family medicine at East Carolina University where he served as chief resident. After finishing medical training, Dr. Dobson founded Mt. Pleasant Family Physicians and served as president until assuming the role of Director for Cabarrus Family Medicine Residency in 1995 and President/CEO of Cabarrus Family Medicine. Dr. Dobson has been actively involved in health policy on the state and national level. He was an early leader and developer of the national recognized "Community Care of North Carolina" Medicaid managed care program. This program recently received the Annie E Casey award for Innovations in Government, presented by the Harvard' Kennedy School of Government. In 2005 he was appointed Assistant Secretary of the Department of Health and Human Services by Governor Mike Easley, where he was responsible for the health divisions of the department as well as serving as the state Medicaid Director. In Sept. 2007, he stepped down from his state appointment to become Vice President for Clinical Practice Development for Carolinas Healthcare System and return as President of Cabarrus Family Medicine.

Dr. Dobson was named the 1992 North Carolina Family Physician of the Year. In 1993, he was the recipient of the Order of the Long Leaf Pine presented by Governor James Martin and a finalist for AAFP Family Physician of the Year. In 2006 Dr. Dobson was presented the Life Time Achievement Award by the NCAFP and the Harvey Estes Community Service Award by the North Carolina Medical Society. In Oct 2007, the AAFP presented Dr Dobson with its National Public Health Award for contribution to the public health of NC citizens. Dr. Dobson has been actively involved in medical student and resident education for many years, holding a faculty appointment of professor of family medicine at the University of North Carolina at Chapel Hill and has served on the Board of the Association of Family Medicine Residency Directors. In 2006 he was presented the 7th Annual Curtis Award for Education by the UNC Department of Family Medicine.

Dr. Dobson and his wife, Martha, are the parents of three children. He enjoys spending time at the lake with family and friends and has a special interest in music.