

# Topics in Health Care:

## The Patient-Centered Medical Home





# Welcome to Today's Medical Education Program!

- I am pleased to be here with you on behalf of Merck, who is sponsoring this medical education program.
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# Content of Presentation

- Background
- Joint Principles of the Patient Centered Medical Home (PCMH)
- NCQA Physician Practice Connections – Patient Centered Medical Home Recognition Program (PPC – PCMH)
- Examples of implementation
- Reimbursement experiments
- Conclusion

# Today's Care –vs– the Medical Home

My patients are those who make appointments with me	→	Our patients are those who are registered in our medical home
Patients' chief symptoms or reasons for visit determines care	→	We systematically assess all our patients' health needs to plan care
Care is determined by today's problem and time available today	→	Care is determined by a proactive plan to meet patients' needs without visits
Care varies by scheduled time and memory or skill of the doctor	→	Care is standardized according to evidence-based guidelines
Patients are responsible for coordinating their own care	→	A prepared team of professionals coordinates all patients' care
I know I deliver high-quality care because I'm well trained	→	We measure our quality and make rapid changes to improve it
Acute care is delivered during the next available appointment and to walk-ins	→	Acute care is delivered by open-access and nonvisit contacts
It's up to the patient to tell us what happened to them	→	We track tests and consultations, and follow-up after ED and hospital visits
Clinic operations center on meeting the doctor's needs	→	A multidisciplinary team works at the top of our licenses to serve patients

ED=emergency department.

Adapted with permission from Daniel Duffy, MD. School of Community Medicine, Tulsa, OK. Accessed at Patient Centered Primary Care Collaborative. [www.pcpcc.net/files/Today's%20Care%20vs.%20Medical%20Home%20Care.ppt#280,1,Slide1](http://www.pcpcc.net/files/Today's%20Care%20vs.%20Medical%20Home%20Care.ppt#280,1,Slide1).

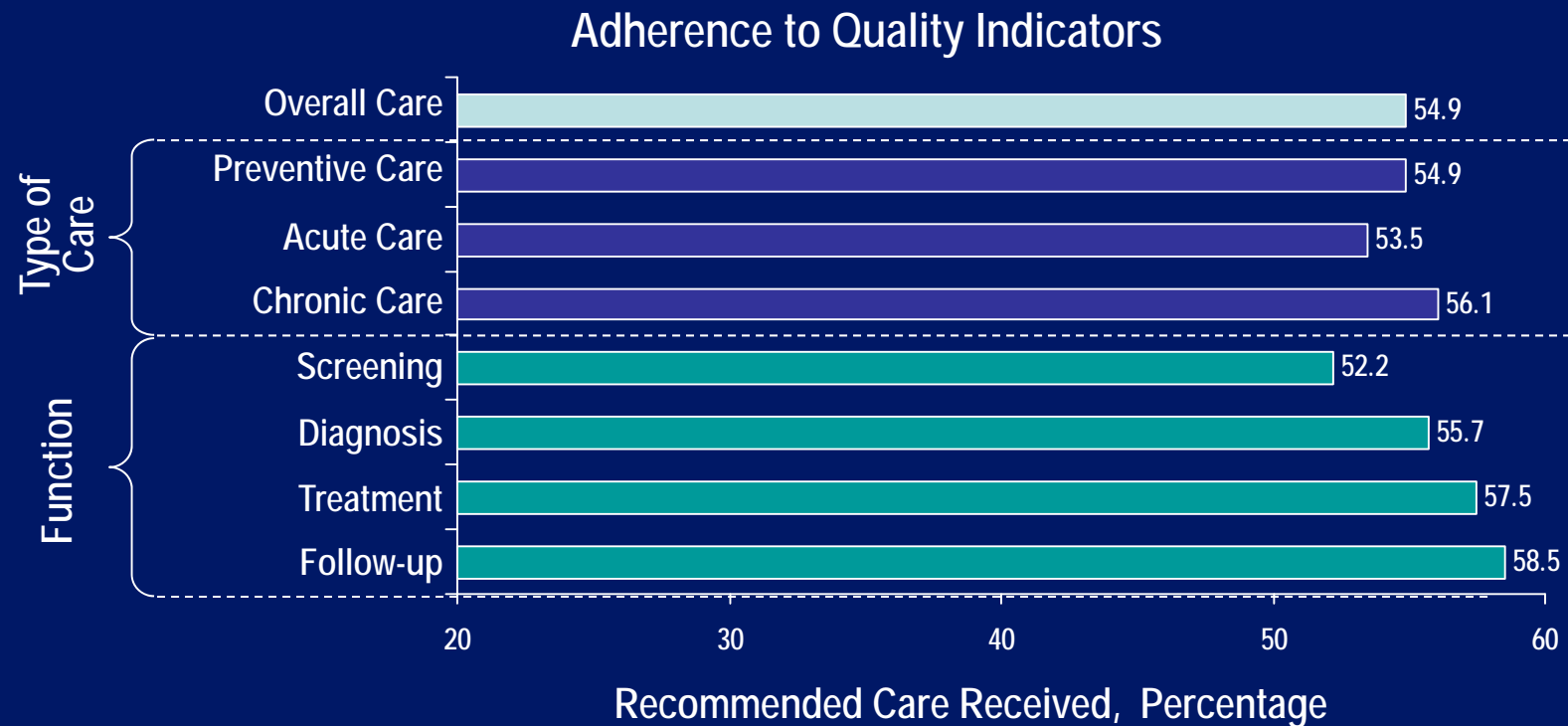
# What's Driving the Change?

- Health needs
  - Americans living longer
    - Average lifespan 77+ years<sup>1</sup>
  - Chronic disease more prevalent
    - > 40% with chronic conditions have > 1<sup>2</sup>
- Quality of care
  - Patients not getting services & not achieving outcomes
    - 45% of adults did not receive recommended care for prevention, acute illness or chronic conditions<sup>3</sup>
    - More than 50% of patients with diabetes, hypertension, tobacco use, hyperlipidemia, congestive heart failure, asthma, depression and chronic atrial fibrillation were managed inadequately<sup>2</sup>

1. US Department of Health and Human Services. *Healthy People 2010*. Washington DC. US Government Printing Office; November 2000.
2. Institute of Medicine: *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2000.
3. McGlynn EA, et al. *N Engl J Med*. 2003; 348(26):2635-45.

# What's Driving the Change?

A survey of adults living in 12 metropolitan areas in the United States shows that only 54.9% received recommended care



# Challenges for the US Health Care System

- Increasing costs<sup>1</sup>
  - Health care expenditures per capita in the United States are 2.4 times higher than the average of all Organisation for Economic Co-operation and Development (OECD) countries<sup>2</sup>
  - National health spending is expected to increase from \$2.4 trillion in 2008 to \$4.4 trillion in 2018<sup>3</sup>
- Poor or inconsistent quality of care<sup>1</sup>
- Inaccessibility to timely care<sup>1</sup>

1. Adams J et al. Healthcare 2015: Win-win or lose-lose? IBM Web site. [www-03.ibm.com/industries/global/files/Healthcare\\_2015\\_Executive\\_Summary\\_r1.pdf](http://www-03.ibm.com/industries/global/files/Healthcare_2015_Executive_Summary_r1.pdf). Accessed July 10, 2009.

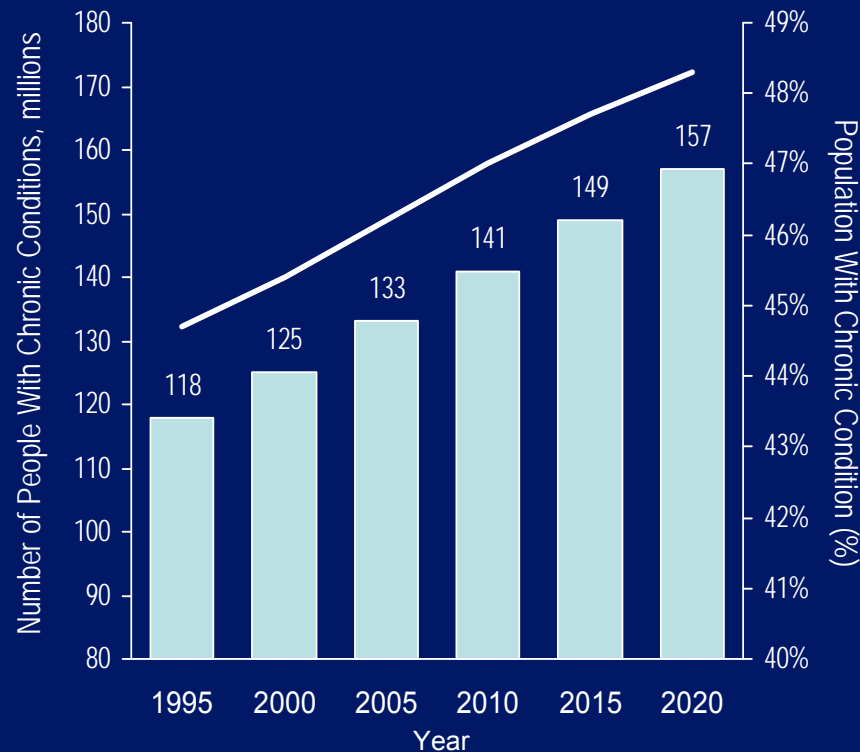
2. Public and private health expenditure. Organisation for Economic Co-operation and Development Web site. Factbook 2006. [lysander.sourceoecd.org/pdf/fact2006pdf/10-01-04.pdf](http://lysander.sourceoecd.org/pdf/fact2006pdf/10-01-04.pdf). Accessed July 24, 2009.

3. National health expenditure projections 2008–2018. Centers for Medicare and Medicaid Services Web site. [www.cms.hhs.gov/NationalHealthExpendData/downloads/proj2008.pdf](http://www.cms.hhs.gov/NationalHealthExpendData/downloads/proj2008.pdf). Accessed July 24, 2009.

# Increasing Prevalence of Chronic Conditions and Increasing Costs



## Prevalence of Chronic Conditions



## Cost of Specific Chronic Conditions

Chronic Condition	Prevalence	Annual Cost
Cardiovascular Disease	80 million	<ul style="list-style-type: none"> <li>\$475.3 billion (includes both direct and indirect costs)</li> </ul>
Diabetes	23.6 million	<ul style="list-style-type: none"> <li>\$116 billion of direct healthcare costs</li> <li>\$58 billion in indirect costs/ lost productivity</li> </ul>
Asthma	~20 million	<ul style="list-style-type: none"> <li>\$18.3 billion, including direct healthcare costs (10.1 billion) and indirect costs/ lost productivity (8.2 billion)</li> </ul>
Depression	20.9 million	<ul style="list-style-type: none"> <li>~\$100 billion of direct healthcare costs (across all mental illnesses)</li> <li>~\$79 billion in indirect costs/ lost productivity (across all mental illnesses)</li> </ul>

Adapted from: Chronic Disease Fact Sheet. <http://www.fightchronicdisease.org/pdfs/ChronicDiseaseFactSheet.pdf>. Accessed June 30, 2009; American Heart Association (AHA). <http://www.americanheart.org/presenter.jhtml?identifier=4478> and <http://www.americanheart.org/presenter.jhtml?identifier=4475>. Accessed June 23, 2009; American Diabetes Association (ADA). <http://www.diabetes.org/about-diabetes.jsp> and <http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp>. Accessed June 23, 2009; Asthma and Allergy Foundation of America (AAFA). <http://www.aaafa.org/display.cfm?id=6&sub=63&cont=252>. Accessed June 23, 2009; National Institute of Mental Health (NIMH). <http://www.nimh.nih.gov/health/publications/depression-a-treatable-illness-fact-sheet/index.shtml>. Accessed June 23, 2009; The 2008 Healthcare Business Market Research Handbook; National Alliance on Mental Illness (NAMI). [http://www.nami.org/Template.cfm?Section=About\\_Mental\\_Illness&Template=/ContentManagement/ContentDisplay.cfm&ContentID=53155](http://www.nami.org/Template.cfm?Section=About_Mental_Illness&Template=/ContentManagement/ContentDisplay.cfm&ContentID=53155). Accessed June 23, 2009.

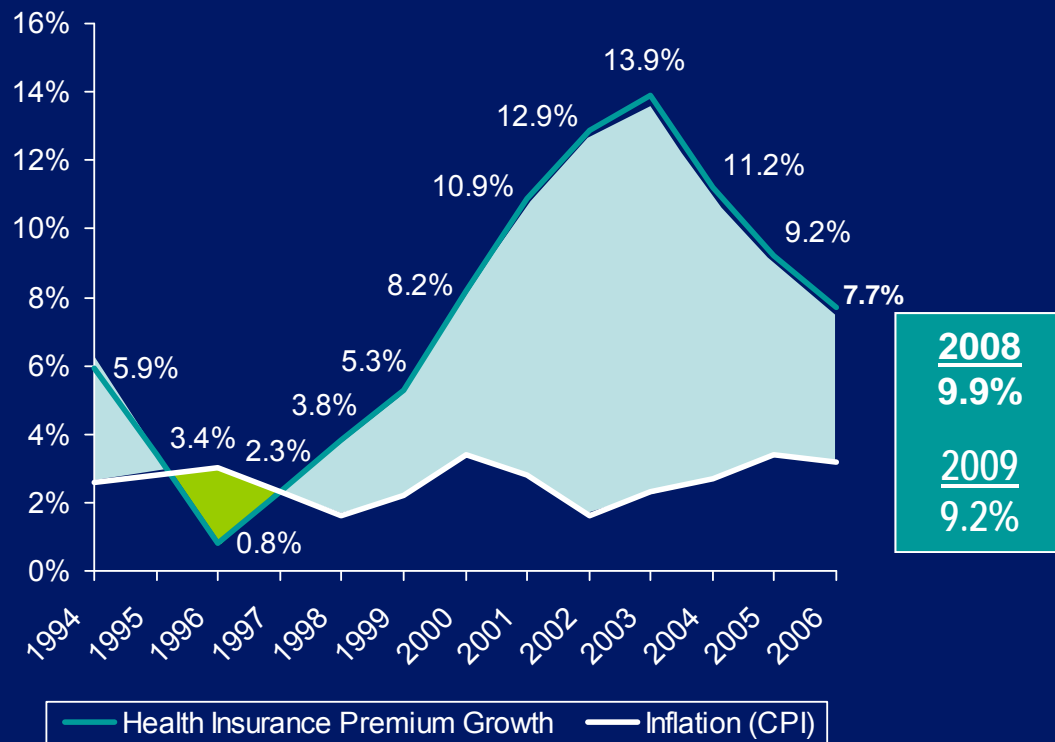
# Cost of Chronic Care in the United States

- In 2007, the United States spent >16% of its gross domestic product (GDP) on health care (≈\$2.2 trillion)<sup>1</sup>
  - Expected to climb toward 20% of GDP by 2018<sup>2</sup>
- The main cost drivers of health care are individuals with chronic conditions<sup>3</sup>
  - 5% of beneficiaries account for 43% of Medicare spending
  - 25% account for 85% of total spending
- Costs are driven by fragmentation and inefficiency
  - 27% of Medicare patients discharged with a diagnosis of chronic heart failure were re-admitted within 30 days<sup>4</sup>
  - 50% of patients discharged with any medical diagnosis, who were readmitted within 30 days had no outpatient visit during the intervening time<sup>4a</sup>

# Health Insurance Premiums Continue to Grow at 2–3x Inflation — Unsustainable



Annual Growth in Employer-Sponsored Health Insurance Premiums<sup>a</sup>



## Discussion

- Despite the decline in health insurance premiums from 2003 to 2006, growth in premiums continues to outpace that of inflation
- Employers are finding it increasingly difficult to afford health care benefits.
  - Small employers are dropping coverage – 68% of employers with 3–199 employees offered coverage in 2001 vs 60% in 2006.
  - Large self-insured employers are not dropping coverage yet, but are trying to manage their own portion of the health care costs through higher member premium sharing/out-of-pocket costs. The pattern of coverage has shifted, with conventional health plans being replaced largely by PPO and POS plans.

<sup>a</sup>Annual health insurance premium for a family of 4.

Adapted from Kaiser/Health Research and Educational Trust. Employer Health Benefits: 2006 Annual Survey (1999-2006); *Business Week*. [http://www.businessweek.com/bwdaily/dnflash/content/jun2009/db20090618\\_304565.htm](http://www.businessweek.com/bwdaily/dnflash/content/jun2009/db20090618_304565.htm). Accessed June 23, 2009.

CPI=consumer price index; PPO=preferred provider organization; POS=point of service.

# The Time Problem

Based on various analyses:

- Time needed for chronic illness care for 2,500 patients<sup>1</sup>
  - Time needed for preventive care for 2,500 patients<sup>2</sup>
  - Time needed for acute care<sup>1</sup>
- 10.6 hours/d
  - 7.4 hours/d
  - 4.6 hours/d

1. Østbye TH, et al. *Ann Fam Med*. 2005;(3)209–214.

2. Yarnall KS, et al. *Am J Pub Health*. 2003;93(4)635–641.

## Payment Issues in Primary Care

- 41% of primary care services (eg, patient communication, arranging referrals) are not reimbursed by procedure-based fee-for-service methodology<sup>1</sup>
- Payment for procedure-based care often is 3 times greater than payment for primary care<sup>2</sup>
  - For example, 30 minutes spent performing a diagnostic, surgical, or imaging procedure vs a 30-minute visit with a patient with diabetes, heart failure, headache, and depression
- The median income of primary care physicians is approximately half that of specialists<sup>2,a</sup>

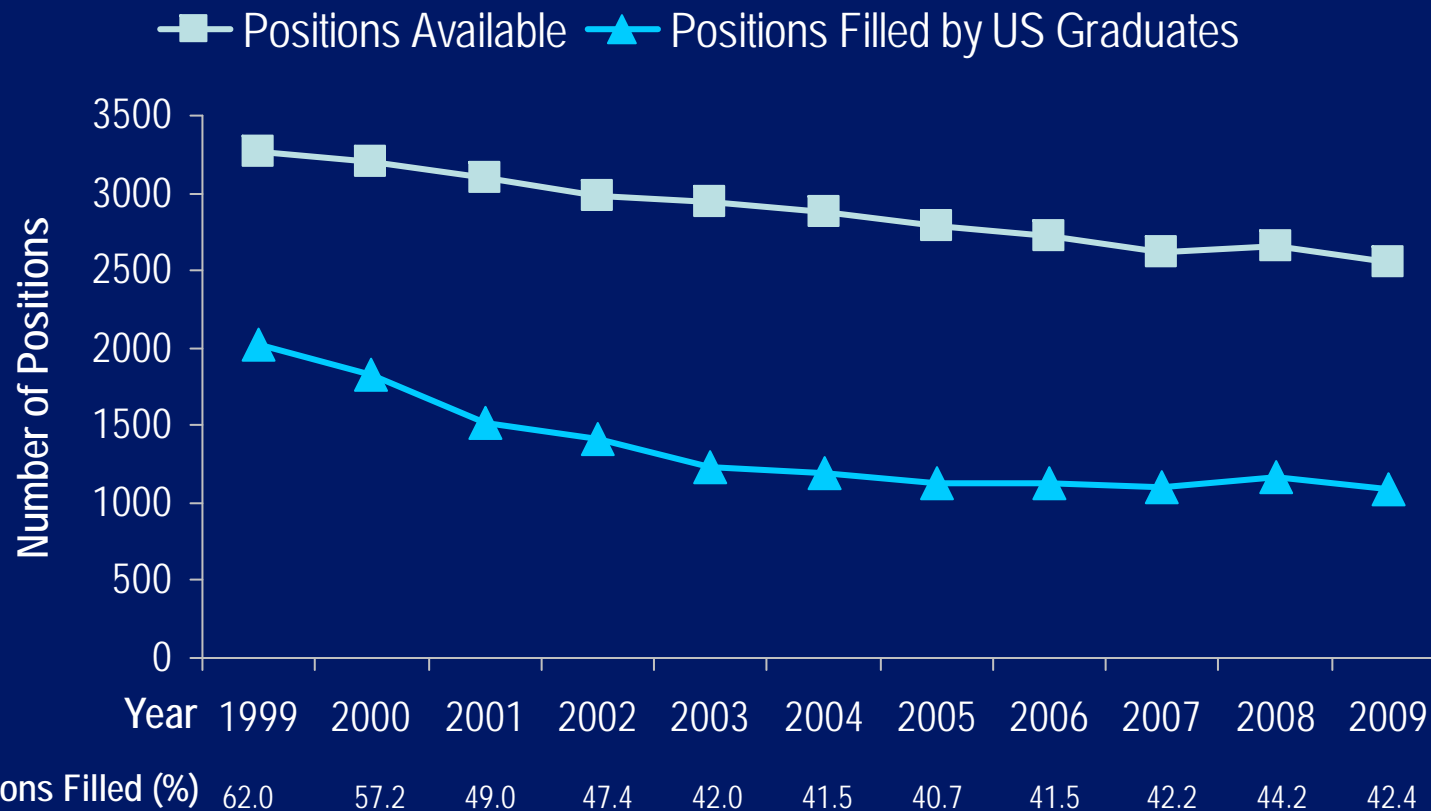
<sup>a</sup>2004 data.

1. Adams J et al. Patient-centered medical home. IBM Web site. [www-935.ibm.com/services/us/gbs/bus/html/gbs-medical-home.html](http://www-935.ibm.com/services/us/gbs/bus/html/gbs-medical-home.html). Accessed July 10, 2009.

2. Bodenheimer T. *N Engl J Med*. 2006;355:861–864.

# Family Medicine Residency Positions and Number Filled by US Medical School Graduates<sup>1</sup>

- 46% fewer graduates entered family medicine residencies in 2009 than in 1999



1. Family medicine positions offered & filled with U.S. seniors in March 1997–2009, based on data from the National Resident Matching Program. American Academy of Family Physicians Web site. (. Accessed July 12, 2009.

# Internal Medicine as a Career Choice for Medical Students<sup>1</sup>

- A Web-based cross-sectional survey of fourth-year medical students was conducted at 11 US medical schools in Spring 2007
  - 1177 respondents (82% response rate)
  - 274 respondents (23%) planned careers in internal medicine
    - Only 24 (2%) planned careers in general internal medicine
  - Students' perceptions of internal medicine vs other specialties they had chosen or considered:
    - Requires more paperwork (68% of respondents)
    - Requires a greater breadth of knowledge (62% of respondents)
    - Has a lower income potential (65% of respondents)

# The Widening Shortage of Generalist Physicians in the United States<sup>1</sup>

- Growth of the aging population is expected to increase the workloads of family physicians and general internists by 29% between 2005 and 2025
- The shortage of generalist physicians for adult care is projected to reach 35,000 to 44,000 by 2025

# Current Clinical Practice Issues

- Based on an acute-care model and physician-centered care
- Does not work as well for prevention and management of chronic illness
- Brief episodic visits may not be part of a continuous system of care
- Longer visits are needed for patients with complex conditions

# Why Do We Need to Change?

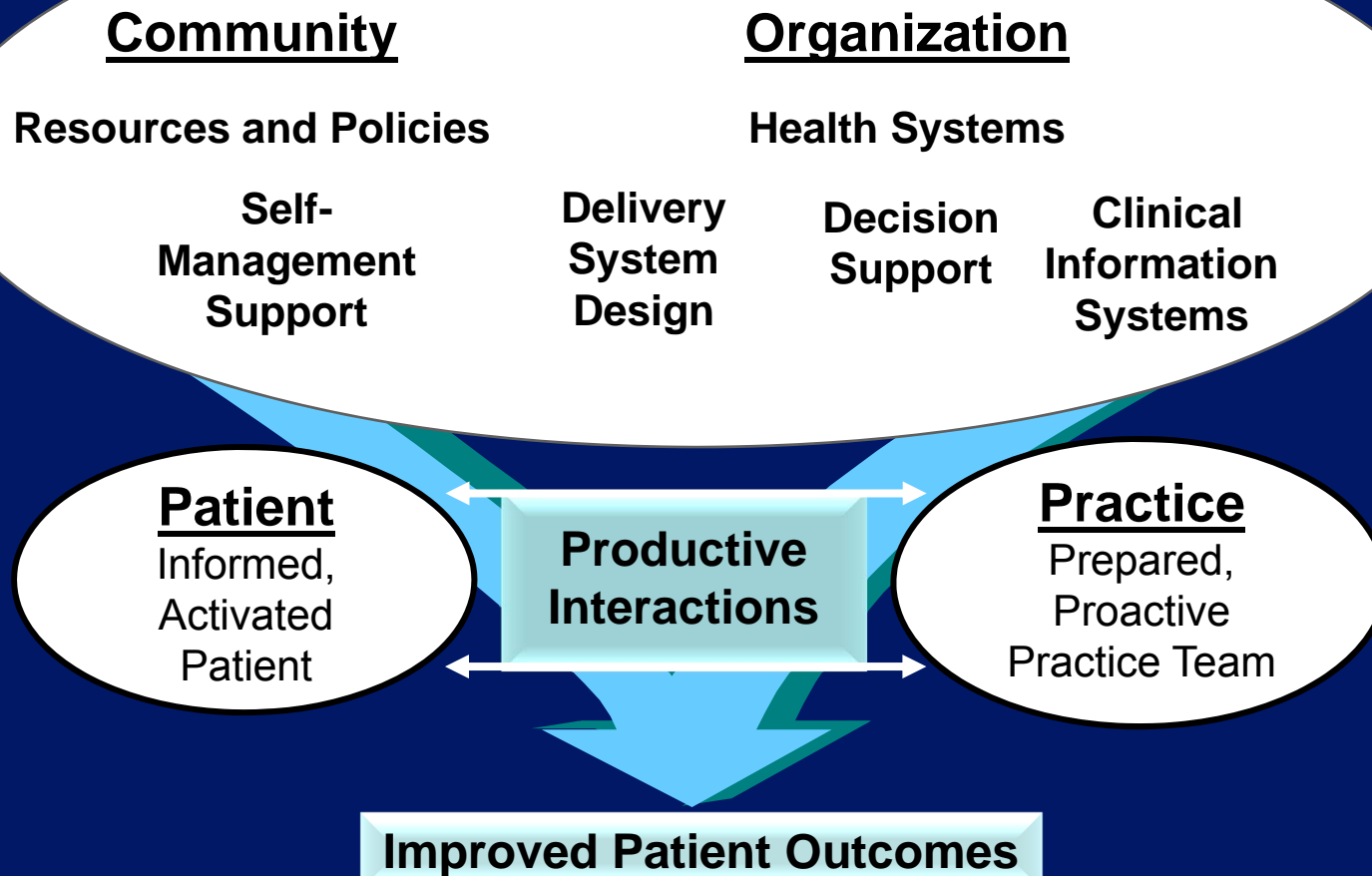
- Quality and cost of care
  - Lack of evidence-based, comprehensive, coordinated care
  - Lack of emphasis on prevention and healthy behaviors
  - Health insurance premiums unaffordable
  - Chronic disease incidence will increase
- Dysfunctional reimbursement system
- Employer/economic competitive disadvantage
- Primary care physician shortage
- Satisfaction

# Current Contribution of Primary Care

- Currently, in the United States, only 4%–6% of total health care expenditure is for primary care<sup>1, 2</sup>
- However, there is demonstrable positive impact : <sup>3</sup>
  - Adults who have an established relationship with a primary care physician had 33% lower costs of care, and were 19% less likely to die
- The movement toward patient-centered medical homes (PCMH) builds and improves on the current efficiency and quality of primary care practices

# Chronic Care Model

Improving chronic illness care at the  
community, organization, patient, and practice levels



# What Is a Patient-Centered Medical Home?

- A Patient-Centered Medical Home (PCMH) is an approach that provides comprehensive primary care across the lifecycle for children, youth, and adults.
- The PCMH team coordinates partnerships between individual patients and their physicians to meet all of the patients' healthcare needs.

# What Is a Patient-Centered Medical Home?

- A patient-centered medical home (PCMH) is a model for care provided by physician practices that seeks to strengthen the physician-patient relationship by replacing episodic care based on illnesses and patient symptoms with coordinated care and a long-term healing relationship

# Joint Principles of the Patient-Centered Medical Home

- Personal physician
- Physician-directed medical practice
- Whole-person orientation
- Care is coordinated and/or integrated
- Quality and Safety
- Enhanced access to care
- Payment

**Developed by:**  
**American Academy of Family Physicians (AAFP)**  
**American Academy of Pediatrics (AAP)**  
**American College of Physicians (ACP)**  
**American Osteopathic Association (AOA)**

# Groups Endorsing the Joint Principles<sup>1</sup>

- American Academy of Family Physicians
- American Academy of Hospice and Palliative Medicine
- American Academy of Neurology
- American Academy of Pediatrics
- American College of Cardiology
- American College of Chest Physicians
- American College of Osteopathic Family Physicians
- American College of Osteopathic Internists
- American College of Physicians
- American Geriatrics Society
- American Medical Association
- American Osteopathic Association
- American Society of Addiction Medicine
- American Society of Clinical Oncology
- Infectious Diseases Society of America
- Society for Adolescent Medicine
- Society of Critical Care Medicine
- Society of General Internal Medicine

# Patient-Centered Medical Home and Workflow Redesign

# Operational Workflows

- Improving reliability and safety in health care involves designing consistent operational flows.
- An electronic health record is a tool to help create consistent designs, but is not itself the answer.
- Sustained improvement does not rely on “I’ll remember to do it the next time,” it does not rely entirely on vigilance and hard work.
- Operational flows can help to ensure quality of care for patients.

# Clinical Process Redesign: Components of a System of Care

## Established Techniques

- Guideline development
- Education
- Measurement
- Timely feedback of data
- Patient education

## New Techniques

- Delegated team responsibilities
- Strategies to pull patients into care
- Non office visit-based care
- Electronic medical record reminders
- Pay for performance

# Workflow Principles

- Identify work that can be done outside of an office visit, including by telephone.<sup>1</sup>
- Distribute work that is done at an office visit to trained non physician staff when appropriate.<sup>2</sup>
- Create reminders and EMR tools to enhance the reliability and efficiency of care provided at the office visit.<sup>1</sup>

# Creating Partnerships Across the Health Care System



## Health Plan

- Population level data and analysis capability
- Patient risk assessment tools
- Case management expertise and staff
- Project management expertise and staff

## Primary Care Practice

- Patient level clinical data
- Community engaged physicians and practices
- Electronic medical record and patient registry
- Workflow redesign

# Case Managers Engage Within 24–48 Hours to Manage Transitions

- Frequent medication issues at care transitions
  - Patients may be confused, may not fill prescriptions
- Discharge plan may be unclear and follow-up appointments may not be scheduled
  - Follow-up communication may be absent, incomplete or illegible.
  - Primary care provider and specialty appointments may not be available.
  - Community resources may not be realized.

# Office-Based Case Managers (Geisinger Example)

- Intense case-manager staffing
  - High-risk patient case load 15%–20%
  - Close collaboration with providers and practice team
- Personal patient link
  - Comprehensive care review and plan – medical, social support
  - Transitions follow-up (discharges, emergency department visits)
  - Direct line access – questions, exacerbation protocols
  - Family support contact
- Recognized site team member as point of contact for patient
  - Regular follow ups of high-risk patients
  - Facilitate access – primary care provider, specialist, ancillary
  - Facilitate special arrangements
- Interactive voice response and telemonitoring for specific populations

# Program Goals

- Improve patient experience and health status
- Improve quality and efficiency across the entire spectrum of care
- Transform focus of primary care from encounter based to quality focus

# Lessons Learned (Geisinger Example)

- It is not the creation of the Electronic Health Record but its implementation into a system of care that helps make it successful.
- Spreading the work out over a team, each with clearly defined and appropriate roles, improves reliability.
- Measures are never perfect, but they improve with time and are vital to the change process.
- Compensation helps focus attention, but it is not sufficient to drive change.

# Case Presentation: 58-Year-Old Woman

- A 58-year-old woman with obesity and diabetes presents with symptoms of fatigue, insomnia, and back pain
- She has a 15-minute appointment
- Health Plan Employer Data and Information Set diabetes measures for this patient:
  - Percentage with an annual retinal examination
  - Percentage with glycohemoglobin tests
    - Percentage having glycohemoglobin tests showing a level of <8.5% (goal <7.0%)
  - Percentage with an annual screening test for microalbuminuria
  - Percentage with 2 or more blood pressure checks per year
    - Percentage with 1 or more blood pressure checks having a systolic blood pressure <135 mmHg (goal <130/80 mmHg)
  - Percentage with an annual lipid panel
    - Percentage with an annual lipid panel showing a low-density lipoprotein level <130 mg/dL (goal < 100 mg/dL)

## Case Presentation (cont)

- Other diabetes measures
- Indicated Immunizations
- Dental visit
- Laboratory monitoring for adverse effects of medications
- Annual foot examination
- Cardiac screening test
- Baseline electrocardiogram

## Case Presentation (cont)

- Cancer screening needs
  - Colon: Colonoscopy (or 3 other types of screening)
  - Cervical: Pap test if last was <1 to 3 years prior
  - Breast: Annual mammogram
- Osteoporosis screening and prevention
- Depression screening and management

## Case Presentation (cont)

- General health issues
- Indicated vaccines
- Weight management
- Advance directives/durable power of attorney
- Culturally sensitive care
- Patient education
- Self management
- Tobacco screen
- Alcohol screen
- Domestic violence screen
- What about her fatigue, insomnia, and back pain?

# Office Practice: Core Functions

- Management of relationships
- Management of knowledge
- Management of resources
- Provision of skills

# Future Office Practice

- Management of patients population
- Provision of patient-centered care
- Provision of personal medical home
- Best information at the point of care
- Continuous access to multimodal communication

## Future Office Practice (cont)

- A new platform of care
- Fewer time-intensive visits
- Group visits
- Teamwork and interpersonal skills
- New reimbursement to cover proactive care coordination by a team outside of visits—the medical home payment

# NCQA PPC-PCMH Recognition Program



# NCQA PPC-PCMH Recognition Program

- Physician Practice Connections – Patient-Centered Medical Home Recognition Program
  - Activated in January 2008
  - Modifies the 2006 Physician Practice Connections program
    - A recognition program designed to recognize physician practices for excellent care management and follow-up
    - NCQA Recognition has been used by many pay-for-performance efforts sponsored by employers and health plans in determining eligibility for awards
  - Reflects the 2007 Joint Principles of the PCMH
  - “Recognizes physician practices functioning as medical homes by using systematic, patient-centered and coordinated care management processes.”



# Data Sources and Health Information Technology (HIT) Guidance



- Elements may have multiple suggestions for data sources and documentation
  - Select what your practice would use to demonstrate that function and describe how it is used
- Each element indicates the type of health information technology needed to perform the functions
  - Basic: HIT Basic
    - Paper-based or basic (mostly administrative) electronic system
  - Intermediate: HIT Intermediate
    - Electronic system for clinical functions
  - Advanced: HIT Advanced
    - Electronic system with connectivity or interoperability with other systems

NCQA: PPC-PPMH Overview. Standards and Guidelines for Physician Practice Connections-Patient-Centered Medical Home. 2008. Available at <http://www.ncqa.org/tabid/631/Default.aspx>.



# PCMH Elements by HIT Type

Basic	Intermediate	Advanced
PPC 1 A–B	PPC 2 B, C, F	PPC 6 B
PPC 2 A, D, E	PPC 5 A–C	PPC 8 F
PPC 3 A–E	PPC 8 E	
PPC 4 A–B	PPC 9 A–C	
PPC 6 A		
PPC 7 A		
PPC 8 A–D		

**Practice can achieve a passing score on all must pass elements with Health Information Technology (HIT) Basic**

# Summary

- Principles defined
- Recognition program established
- Skills for change identified
- Reimbursement changing
- Time for practices to change is now

# Skills For Building Medical Homes

- Vision and leadership
- Team development
- Change acceleration
- Project management
- Fostering a culture of improvement
- Enjoying the journey
  - Celebrate along the way

## For More Information

- [pcpcc.net](http://pcpcc.net)
- [aafp.org](http://aafp.org)
- [acponline.org](http://acponline.org)
- [medicalhomeinfo.org](http://medicalhomeinfo.org)
- [medhomeinfo.org](http://medhomeinfo.org)
- [ncqa.org](http://ncqa.org)
- [transforMED.com](http://transforMED.com)



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- I appreciate your attention to my presentation today, which was conducted on behalf of Merck.
- The program you participated in is not an accredited Continuing Medical Education program.