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The Use of Health Information Technology for the Medicaid Population

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Collaborative Health Care Management

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Providing Electronic Health Records for the Medicaid Population

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Collaborative Health Care Management

Collaboration Works!

Session Objectives:

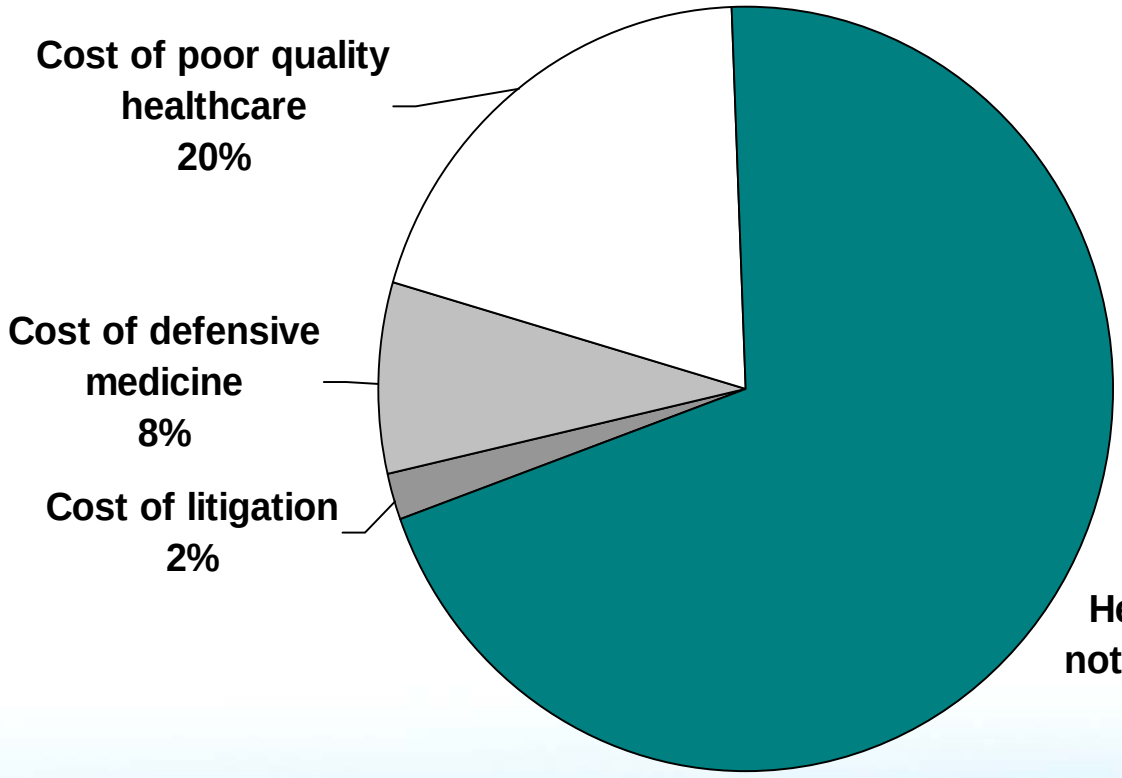
- Understand the role that health plans and information sharing can play in advancing the exchange of actionable information with physicians
- Learn about the early results demonstrating improvement in clinical activity, clinical results and cost savings
- Appreciate the role of information integration and exchange
- Discuss the critical requirement of aligned incentives to drive engagement and benefit for all stakeholders

The Pain in the Marketplace

- Medical errors
- Medical cost inflation
- Administrative burdens and costs
- The health care technology gap
- The health care knowledge gap

Increasing the Use of Evidence-Based Practices

Opportunity exists to reduce health care spending by reducing the cost of poor quality care.



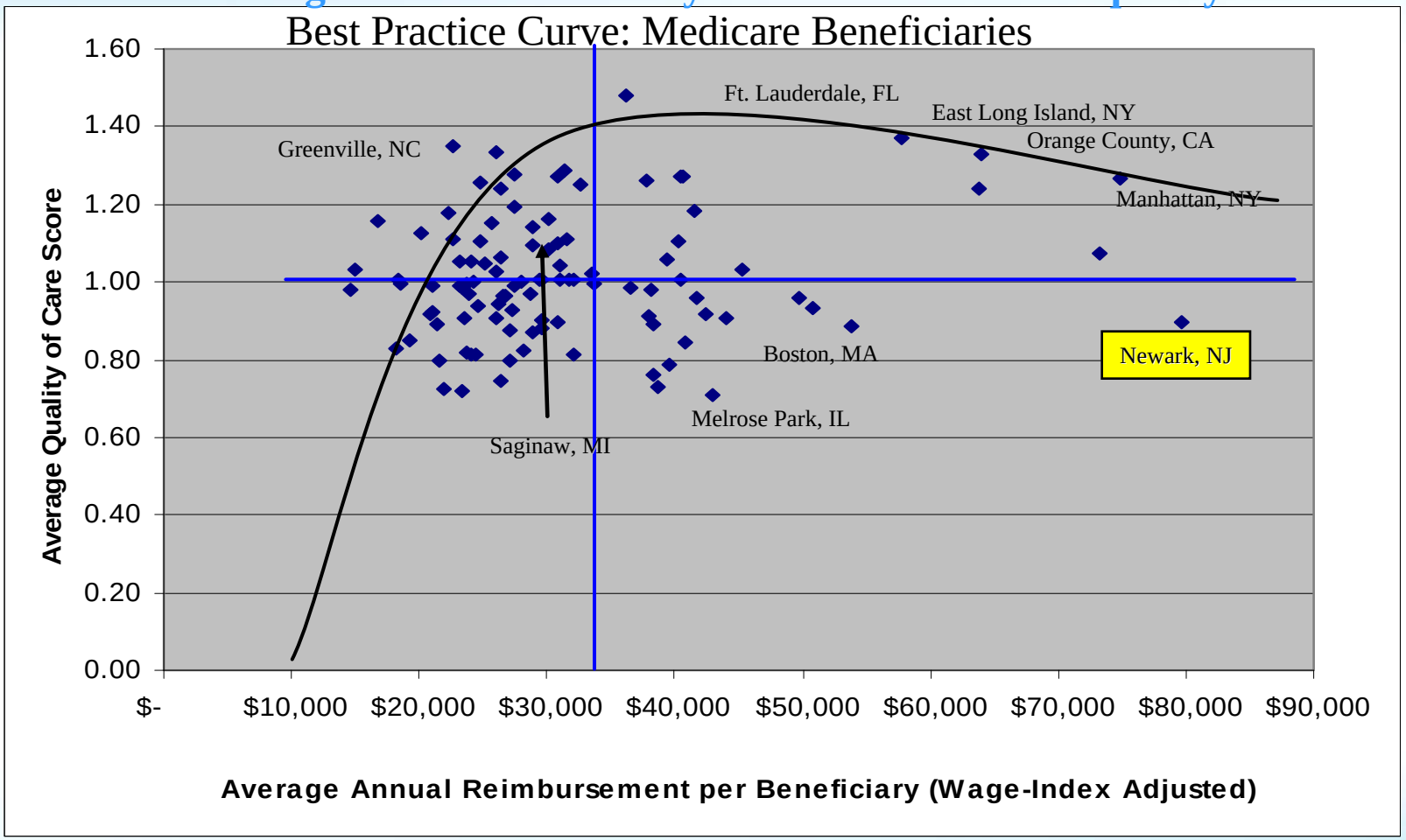
National Health Expenditures in 2007 = $2.2 trillion

Source: Juran Institute, Inc. and The Severyn Group, Inc., "Reducing the Costs of Poor Quality Health Care Through Responsible Purchasing Leadership," April 2003.

Common Care Management Problems

- Lack of medical director involvement
- Ineffective nurse involvement
- Missed case management/disease management opportunities
- High dollar outpatient services escape detection
- Quality of care not advanced
- Deficient data tracking and reporting

The healthcare delivery system demonstrates significant variability in cost of care - high cost does not always translate into better quality



** Based on percent of beneficiaries with three conditions (diabetes, chronic obstructive pulmonary disease, and congestive heart failure) who had a doctor's visit four weeks after hospitalization, a doctor's visit every six months, annual cholesterol test, annual flu shot, annual eye exam, annual HbA1C test, and annual nephrology test*

Source: G. Anderson and R. Herbert for The Commonwealth Fund, Medicare Standard Analytical File 5% 2001 data.

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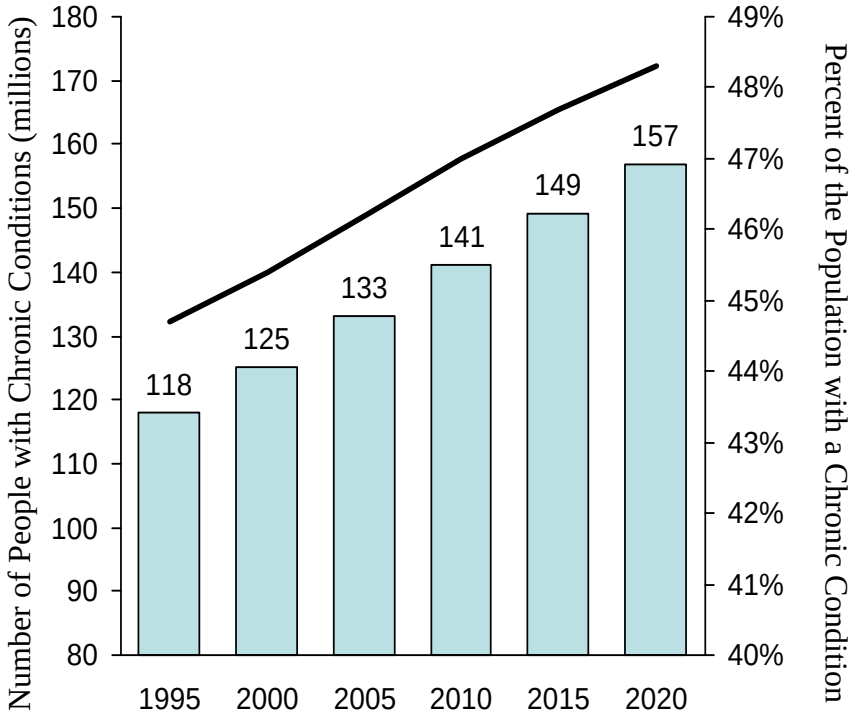
More than 130 million Americans suffer from chronic conditions – this will increase in the future, further increasing costs

Prevalence of Chronic Conditions



Cost of Specific Chronic Conditions

Chronic Condition	Prevalence	Annual Cost
Cardiovascular Disease	**80M**	• **~$283B** of direct healthcare costs • **~$149B** in indirect costs/ lost productivity
Diabetes	**18M**	• **~$92B** of direct healthcare costs • **~$40B** in indirect costs/ lost productivity
Asthma	**~20M**	• **~$20B**, including direct healthcare costs and indirect costs/ lost productivity (includes asthma and allergies)
Depression	**~20M**	• **~$100B** of direct healthcare costs (across all mental illnesses) • **~$100B** in indirect costs/ lost productivity (across all mental illnesses)

Source: Wu, Shin-Yi, and Green, Anthony. Projection of Chronic illness Prevalence and Cost Inflation. RAND Corporation, October 2000; American Heart Association, Centers for Disease Control (CDC), American Diabetes Association (ADA), Asthma and Allergy Foundation of America (AAFA), National Alliance on Mental Illness (NAMI); Disease Prevalence and Economic Impact 2007 R. Miller, Booz Allen Hamilton analysis

Annual Growth in Employer-Sponsored Health Insurance Premiums[1]

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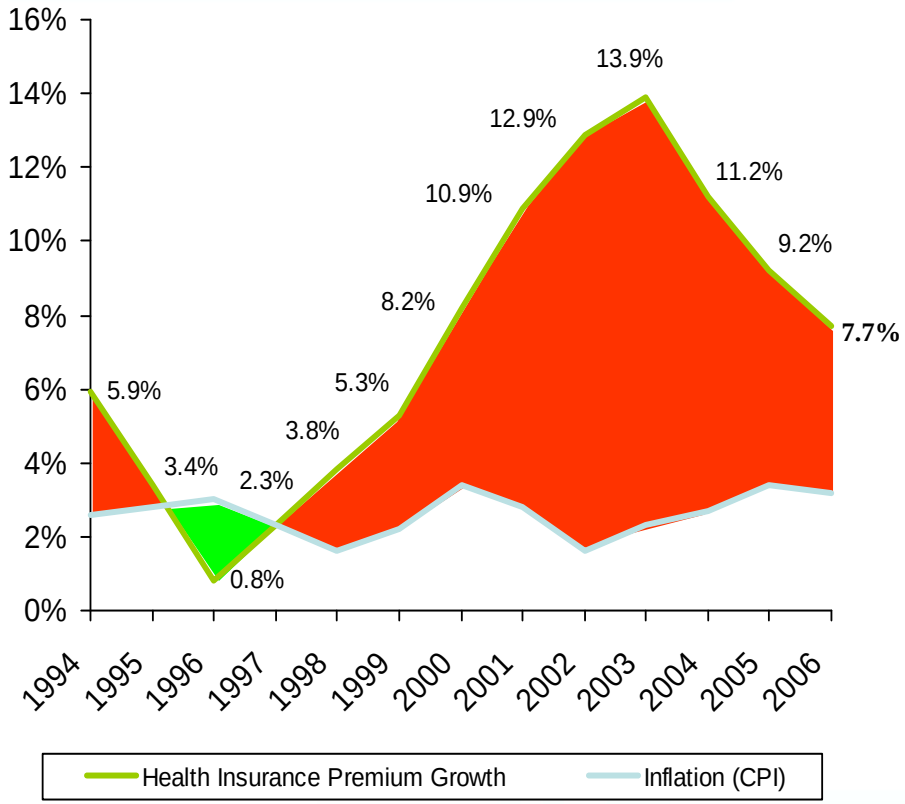
While somewhat mitigated, health premiums continue to grow at 2-3X inflation, a level considered unsustainable by employers



Cumulative Growth (1994-2006)

149%

40%

Discussion

The continued growth in premiums/ medical costs at 2-3X inflation has led to an affordability crisis in healthcare

- **Employers are finding it increasingly difficult to afford healthcare 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 healthcare costs through higher member premium sharing/out of pocket costs, and an increased emphasis on healthcare management**

(1) Annual health insurance premium for a family of four

Source: Kaiser / HRET Survey of Employer-Sponsored Health Benefits 1999-2006, Booz Allen Hamilton analysis

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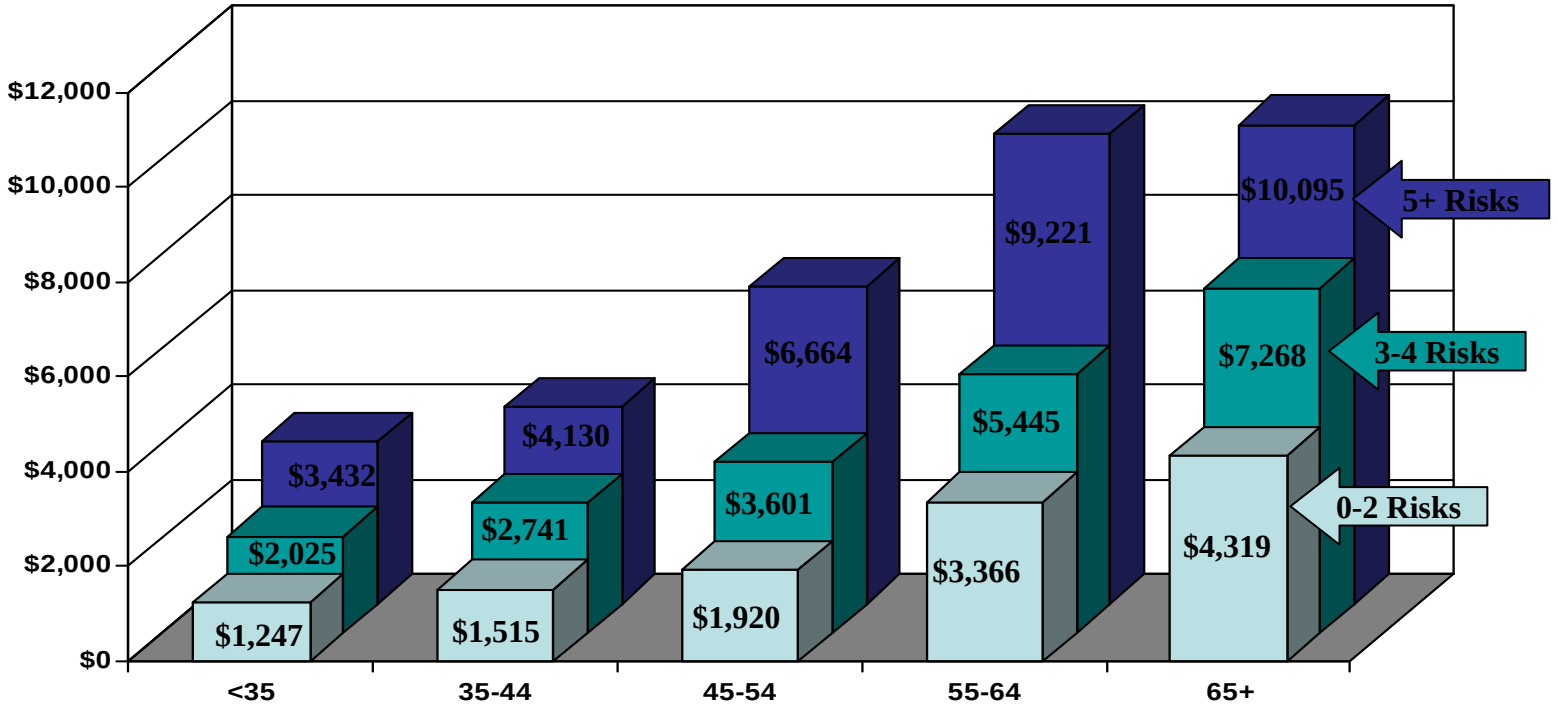
Health Risks Have Significant Impact on Medical Costs



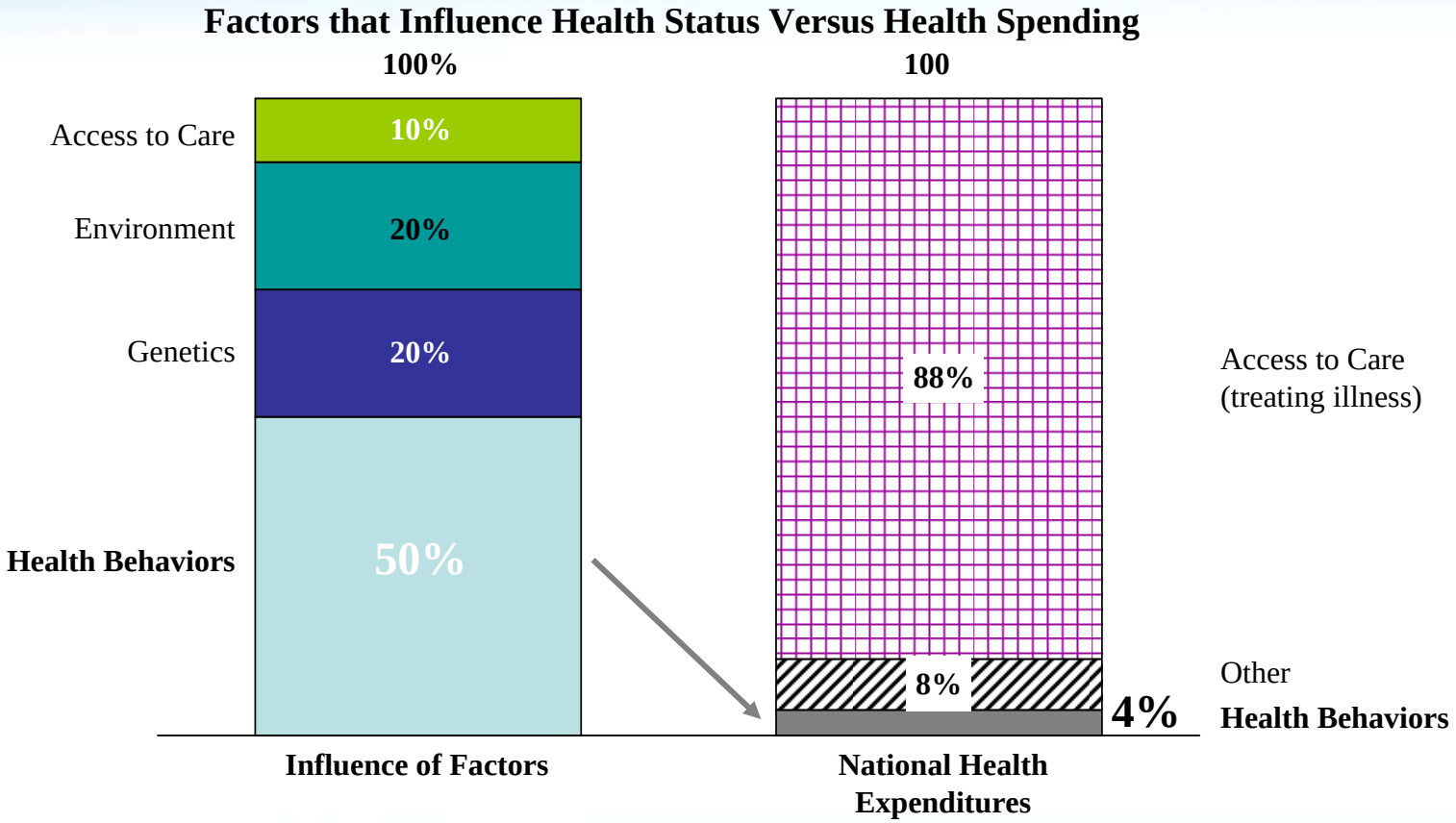
Source: Dee Edington, PhD, University of Michigan (risk factors include tobacco usage, sedentary lifestyle, Extremely high/low body weight, high blood pressure, high blood glucose, depression)

Care Management Paradigms

- 1st Generation: global micromanagement
- 2nd Generation: population-based analysis with targeted interventions
- 3rd Generation: delivery of clinical information for use at the point of care

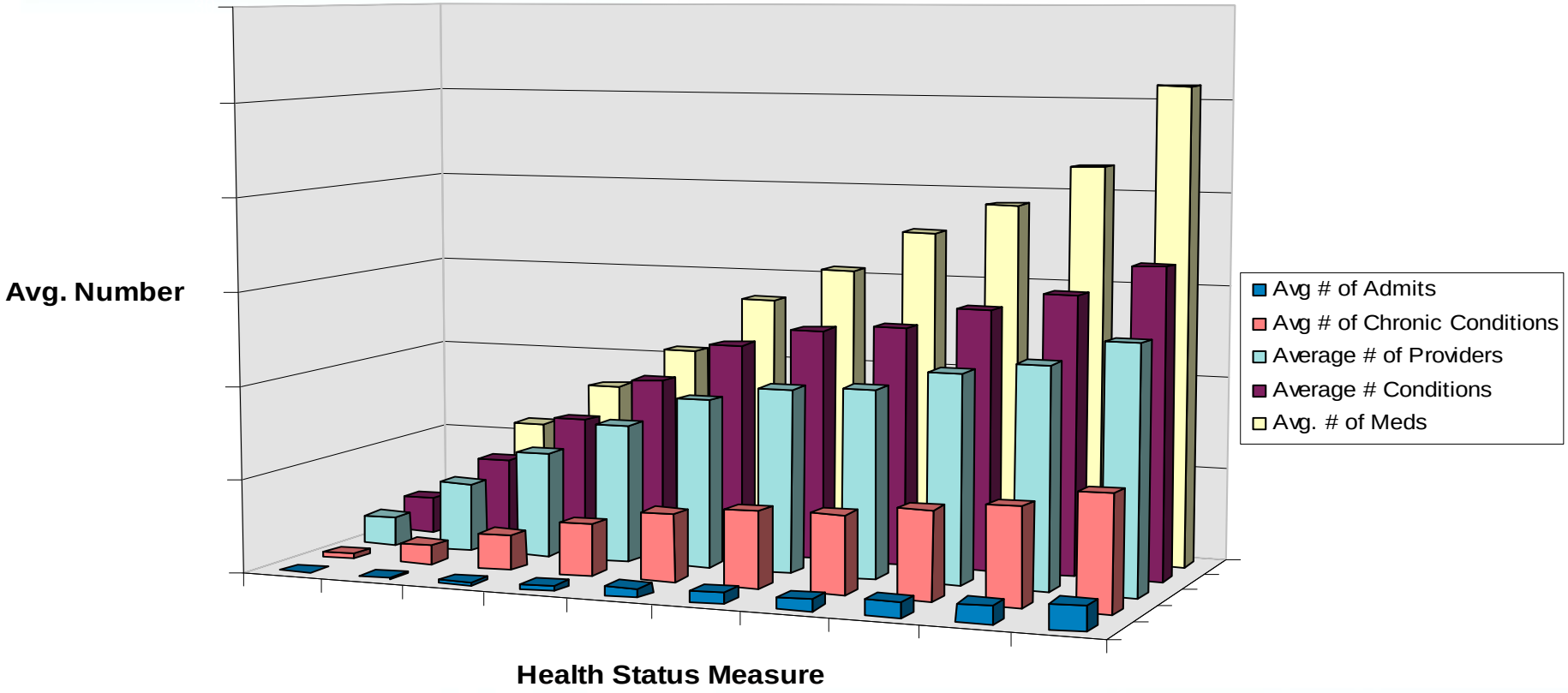
Note the Emphasis on "Information", not "Technology"!

There is a need to develop models with a greater focus on healthy behaviors where investment has traditionally been low



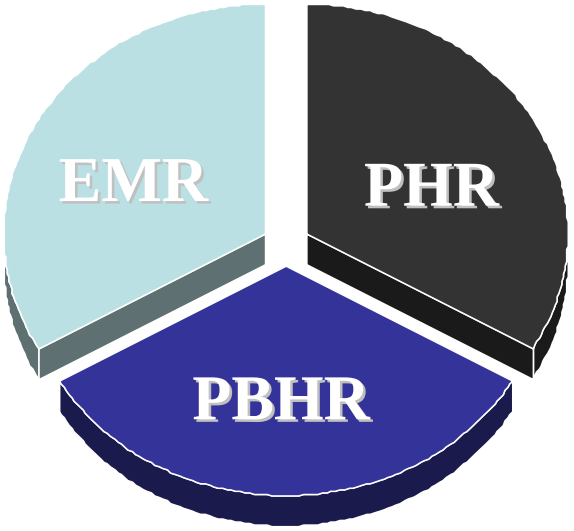
Sources: Centers for Diseases Control and Prevention, University of California at San Francisco, Institute for the Future. Reprinted from Advances, Robert Wood Johnson Quarterly Newsletter, 2000; 1:1

“Need EHRs?”


Avg. Number
Health Status Measure
Avg # of Admits
Avg # of Chronic Conditions
Average # of Providers
Average # Conditions
Avg. # of Meds

Data Sources for the EHR

- **Payer data:** enrollment, claims (medical, behavioral), pharmacy, HRA, care management and medical necessity data
- **Personal data:** allergies, OTC medications, old procedures, vaccinations, exercise routines, family medical history
- **Provider data:** EMR data (SOAP notes, problem lists), lab results, radiology reports and images



Patient Data Sources

- Our challenge is to intelligently “weave” these primary sources of patient data together:

Definition of Terms

- **Electronic Health Record (EHR):** a record derived from the sum of data available from the PBHR, EMR and PHR for an individual patient
- **Patient Clinical Summary (PCS™):** a clinically validated, composite EHR

Value-Added Data Analysis

- An information creation process whereby the health plan provides to a patient's physicians, at the point of care, a concise summary of all available, clinically relevant information, together with a list of "treatment opportunities" based on the evidence-based standard of care, enabling that physician to make more informed treatment decisions
- It's about execution…

Patient Clinical Summary (PCS™): Components

- **Program and Severity**
- **Health Status Measure**
- **Medical Conditions**
- **Inpatient Facility Admissions**
- **Emergency Room Visits**
- **Monitored Services**
- **Medications Categories**
- **Medication Detail Description with dose (2nd half '08)**
- **Providers seen**
- **Clinical Flags (Treatment and Wellness Opportunities)**
- **Active Care Management Summary**
- **Closed Care Management Summary**

Patient Summary

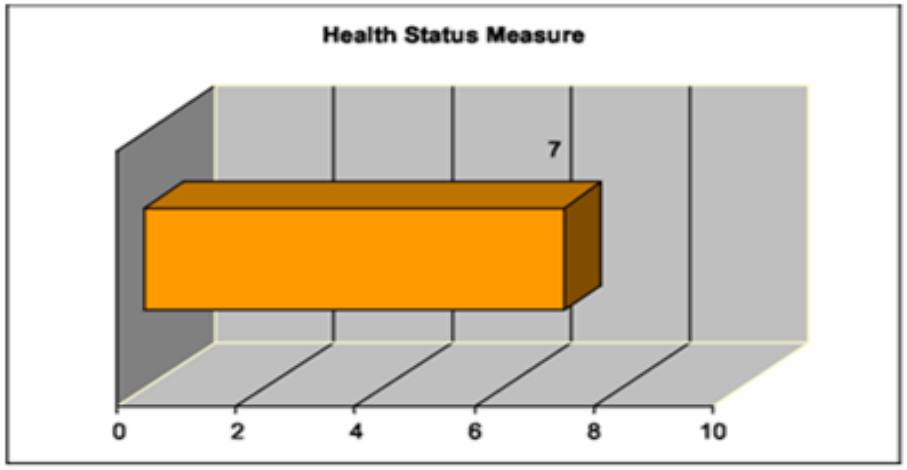
Name:	SMITH, JOHN	**ID:**	JM1QBZJ1H00	**Eligibility:**	01/01/2002 - 12/31/2008
Address:	548 WEADLEY ROAD GULPH MILLS, PA 19406	**DOB:**	01/01/1956	**Phone (H):**	610-995-9877
		Gender:	M	**Phone (W):**	610-269-5200/1154
PCP:	STELLA, BRIAN	**PCP ID:**	610687090	**PCP phone:**	215-463-5254

Program and Severity

Program	Severity	Start/Update
DIABETES	High	11/01/2007
CONGESTIVE HEART FAILURE	Medium	01/01/2008

Health Status Measure

The Health Status Measure indicates risk in the next 12 months. 1 is low 10 is high.



Medical Conditions

High Severity

Condition
DIABETES MELLITUS

Medium Severity

Condition
ULCERATIVE COLITIS
ISCHEMIC HEART DISEASE/ANGINA PECTORIS
HEART FAILURE (CHF)

Low Severity

Condition
NEUROMUSCULAR DISORDER

Inpatient Facility Admissions

Facility	Admit date	Disch. date	Days	Principal DX
KENTON LAFORGE	02/22/2008	03/02/2008	9	250.12 - DIABETES W/KETOACIDOSIS, TYPE II

Emergency Room Visits

PATIENT HAS HAD 0 EMERGENCY ROOM VISITS IN THE PAST 12 MONTHS

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Monitored Services

Service	# of services	Last service date	Most recent servicing provider	Phone #
HEMOGLOBIN A1C	3	07/31/2007	BRIAN STELLA	215-463-5254
GLUCOSE TESTING, BLOOD	5	07/31/2007	BRIAN STELLA	215-463-5254
CHEM./METABOLIC PANEL TESTING	5	07/25/2007	DIANA GUSSMAN	215-644-5468
CARDIAC MONITORING (HOLTER)	1	06/20/2007	WENDELL VENDETTI	610-249-5587
SURGICAL PATHOLOGY	1	04/30/2008	DIANA GUSSMAN	215-644-5468
ABDOMINAL ULTRASOUND EXAMS	2	04/17/2008	HEATH SUDDUTH	215-646-9872
URINALYSIS	4	04/16/2008	DIANA GUSSMAN	215-644-5468
AMYLASE (SERUM) ASSAY	2	04/16/2008	DIANA GUSSMAN	215-644-5468
CBC AND COMPONENT COUNTS	4	04/16/2008	DIANA GUSSMAN	215-644-5468
ELECTROCARDIOGRAM (ECG)	1	04/05/2008	WENDELL VENDETTI	610-249-5587
HEART ECHO EXAM	3	03/01/2008	WENDELL VENDETTI	610-249-5587
CALCIUM ASSAY	4	02/23/2008	DIANA GUSSMAN	215-644-5468
CARDIOVASCULAR STRESS TEST	2	02/22/2008	WENDELL VENDETTI	610-249-5587

Medications

Medication class	# fills	Last fill date
CARVEDILOL/COREG	9	12/28/2007
ACE INHIBITORS	9	12/28/2007
LANSOPRAZOLE/PREVACID	7	12/10/2007
AMOXICILLIN PREPARATIONS	1	04/29/2008
OSMOTIC LAXATIVE/BOWEL PREPS	1	04/17/2008
LOOP DIURETICS	3	04/13/2008
INSULIN	2	03 /26/2008
NEEDLES & SYRINGES	12	03/09/2008
AMOX K CLAVULANATE/AUGMENTIN	1	03/02/2008
AMLODIPINE/NORVASC	1	01/25/2008

Providers Seen

Provider name	Specialty	Phone #	Last service date
WENDELL VENDETTI	CARDIOLOGY	610-249-5587	09/06/2007
BRIAN STELLA	FAMILY PRACTICE	215-463-5254	07/31/2007
LAWRENCE URBINA	EMERGENCY MEDICINE	610-723-4452	04/17/2008
KASEY CLONINGER	INTERNAL MEDICINE	215-828-1960	04/01/2008
DIANA GUSSMAN	ENDOCRINOLOGIST	215-644-5468	02/22/2008

Clinical Flags

Treatment Opportunities

- Diabetes and no Eye Exam in the past 12 Months
- Diabetic age 40 or older not on statin medication

Preventative Health and Wellness

- Age 50 to 52 and no colonoscopy in the past 2 years
- No blood test for cholesterol in the past 2 years

"Pay for Performance" Suggestions?

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Active Care Management Summary

Problem: Testing frequency may be inconsistent with guidelines for A1C

Open: 11/02/2007	DM – Diabetes	Case ID: 1234567-0001
Goal(s): • Member will seek A1C testing every 3-6 months. • Member will demonstrate understanding of importance of A1C testing in monitoring diabetes care.		

Problem: Overweight/Obesity with diabetes

Open: 01/10/2008	DM – Diabetes	Case ID: 1234567-0001
Goal(s): • Member will demonstrate understanding of risk factors for condition/behavior. • Member will set first weight loss goal at 10% of body weight. • Member will increase physical activity to increase daily calorie deficit.		

Closed Care Management Summary

Problem: Current Tobacco User

Open: 11/02/2007	DM – Diabetes	Case ID: 1234567-0001
Closed: 01/10/2008		
Goal(s): • Member will seek assistance of support group. • Member will demonstrate understanding of the treatment options that are available to help them. • Member will make incremental and consistent changes to reduce health risk.		

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What is Needed?

- Payers require technology to distill “truth” from claims and pharmacy data, search for treatment opportunities, and to deliver the PCS^{tm} over the Internet
- Physicians and Hospitals require only an Internet connection and printer
  - No installed software
  - No cost to the providers of care

PCS Economic Benefit Study

- Objective: To determine the economic benefits from the use of the Patient Clinical Summary (PCS) in an emergency department (ED) from a managed care and patient perspective
- Match: 3,590 controls were successfully matched to 918 cases
  - Age
  - Gender
  - Line of Business (LOB)
  - Triage Severity Score
- Diagnoses observed and frequency of those diagnoses were similar between cases and controls

PCS Economic Benefit Study

- Savings were associated with accessing the PCS in the ED compared with controls (PCS not accessed)
  - Reduced combined ED and 1st day of hospitalization costs by $545 ($p = 0.001$)
- Significant cost savings in:
  - Laboratory testing
  - Cardiac catheterization
  - Medical and surgical supplies

PCS Ongoing Study Outcomes

- Medical Cost Savings (services, professional, facility)
- Admission Rates from ED
- Distribution of Cognitive Care Codes
- ED Length of Stay
- Subsequent ED Visit Rates
- Provider Satisfaction with Data

Medicaid Uses

- Of the 5% of the U.S. population soon to have a PCS™ available for their doctors' use, only about 500,000 lives are in Medicaid Managed Care plans
  - The AmeriHealth Mercy Family of Companies and its affiliates are rolling out the PCS in two states: Pennsylvania and Kentucky

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Medicaid and PCS

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AmeriHealth Mercy Health Plan Overview

- AmeriHealth Mercy and our affiliates comprise the largest family of Medicaid managed care plans in the United States, touching the lives of nearly 2 million members in 16 states.
- AmeriHealth Mercy is the nation's expert and industry leader in providing managed care services and management for Medicaid and State Children's Health Insurance Program populations.
- Largest Medicaid-only, multi-state plan with over 20 years of experience

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AmeriHealth Mercy Health Plan Overview

- 280,000 MEMBERS
- 200,000 ER VISITS / YEAR
- $37 MILLION ER COSTS / YEAR
- 20 HOSPITALS

MEDecision and AmeriHealth Mercy

- Customer since 1993
- Strategic partnership
- Enterprise-wide deployment of products planned
- AmeriHealth Mercy and its affiliates currently use:
  - Advanced Medical Management (1993)
    - CarePlanner Web
    - CRIS
  - Collaborative Data Exchange
    - iEXCHANGE Web, EDI, IVR (2003)
    - PCS (2006)
  - Data Gathering and Analytics
    - Case Alert (2005)

MEDecision Supports AmeriHealth Mercy's Business Goals

- MEDecision creates efficient and provider-friendly medical management systems (iEXCHANGE)
- MEDecision supports AmeriHealth Mercy's case management and disease management efforts through system enhancements
- MEDecision develops tools to promote clinical information exchange to enhance quality and reduce costs (PCS)
- MEDecision partners with AmeriHealth Mercy to gain competitive advantage in RFP's to support our growth strategy

ER DIAGNOSIS

- ASTHMA
- CHEST PAIN
- FEVER, URI
- CHF
- MUSCULOSKELETAL
- ABDOMINAL PAIN

ER ISSUES

- 50% ADMITS THROUGH ER
- FREQUENT FLIERS
- MULTIPLE VISITS
- MULTIPLE ER'S

PATIENT POPULATION

- MULTIPLE CO-MORBIDITIES
- MULTIPLE MEDICATIONS
- MULTIPLE PHYSICIANS
- POOR HISTORIANS

CASE EXAMPLE

- 50 y.o. B/M, Diagnoses CAD, DM, HTN
- HOMELESS
- 68 ADMISSIONS
- 10 CARDIAC CATHERIZATIONS

PCS

- MEDICAL RECORD AT POC
- CLINICAL HISTORY
- MEDICATIONS
- DIAGNOSTIC TESTING
- THERAPEUTIC GAPS

OUTCOMES

- REDUCE DUPLICATION OF DIAGNOSTIC SERVICES
- APPROPRIATE MEDICATION THERAPY
- REDUCE ADMISSIONS
- REDUCE ER AND IP COSTS

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Questions?

Collaborative Health Care Management