



**UNIVERSITY OF MICHIGAN
MEDICAL MANAGEMENT CENTER**

**Managing Chronic Disease
in an Academic Medical Center**

Christopher G. Wise, Ph.D.



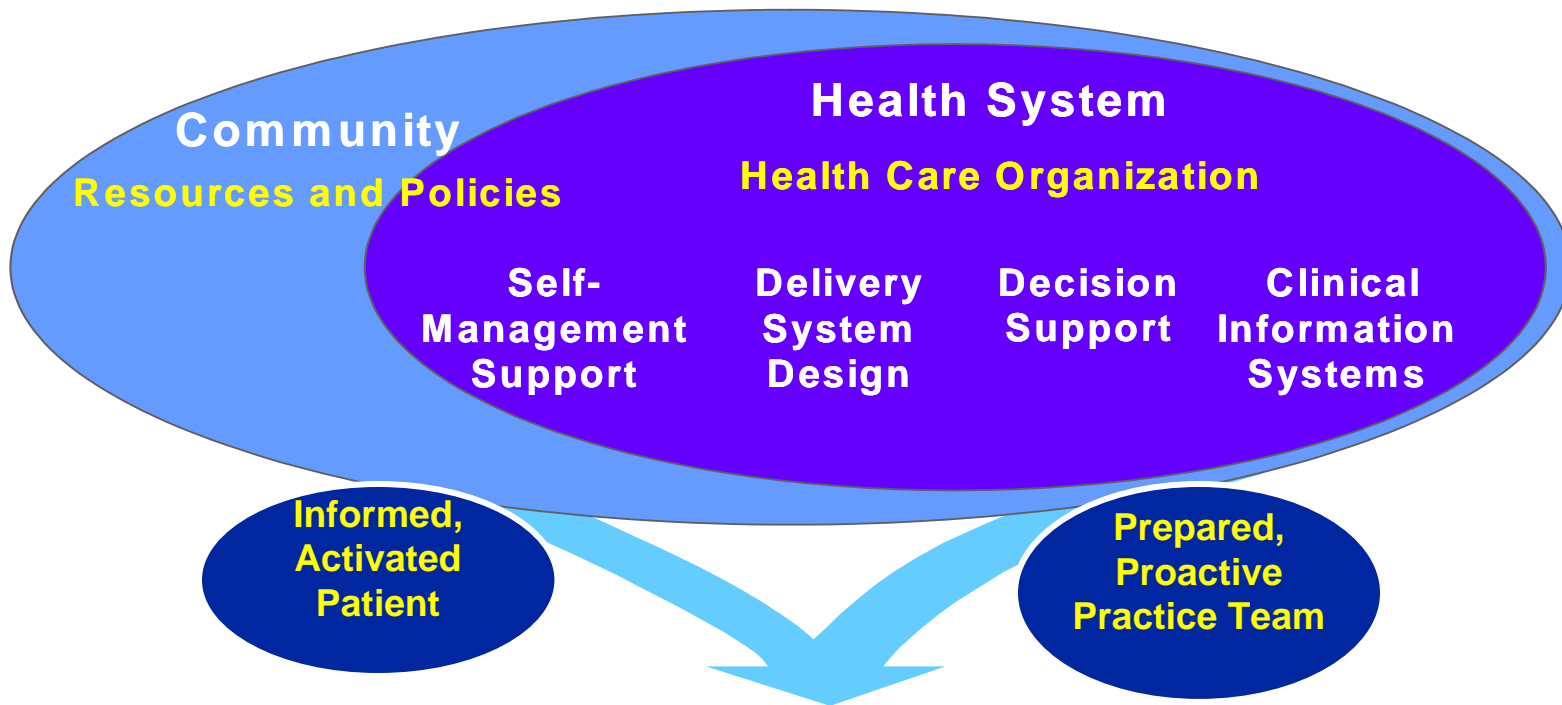
Presentation Goals

- **Briefly describe attempts to implement the Chronic Care Model in a provider setting**
- **Describe supporting programs**
 - **CMS Physician Group Practice Demonstration Project**
 - **Greater Detroit Area Health Council**
 - **BCBSM Physician Group Incentive Project**
- **Discuss use of 'Lean Thinking' to integrate Chronic Care Model**
- **Questions**

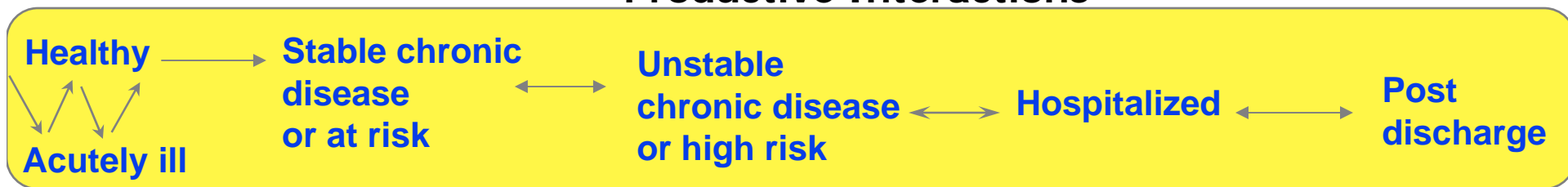


UMHS Medical Management Center (MMC)

- **Created in 1996 to advance population-based medical and chronic disease mgt.**
- **Focus on:**
 - **Proactive case finding & outreach**
 - **Complex care management**
 - **Clinician-directed disease management**
 - **Evidence-based guidelines & provider feedback**
 - **Pharmacy management**
 - **Transitional care between inpatient/outpatient**
 - **Patient centered care based on the Chronic Care Model**
 - **System integration**
- **Align efforts with external funding opportunities**

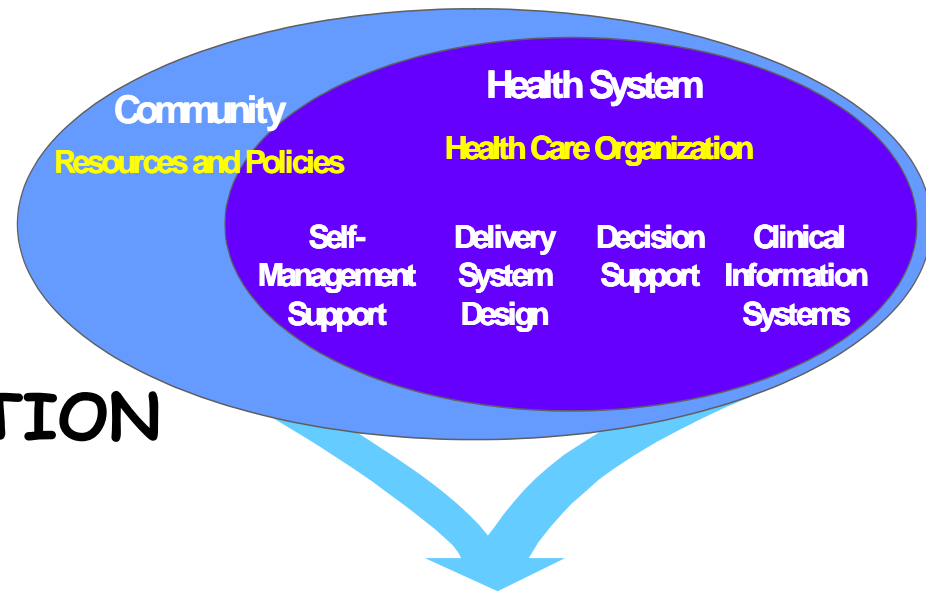


Productive Interactions



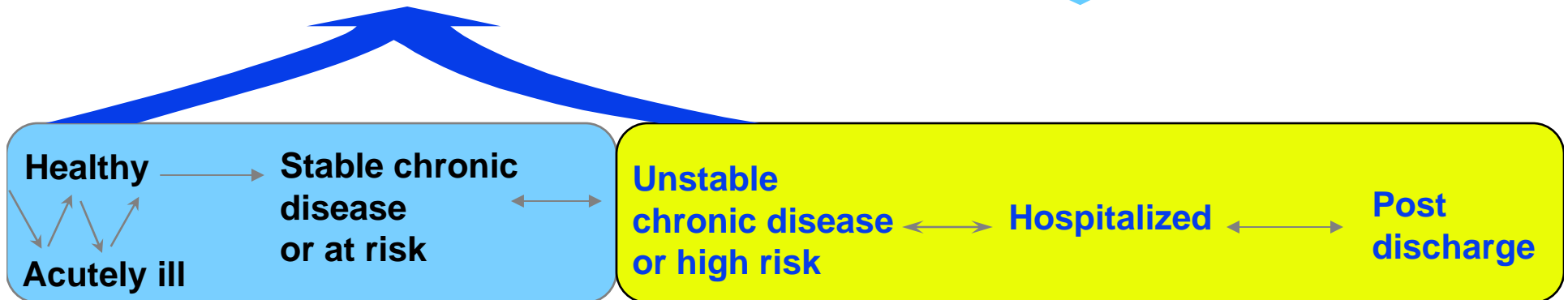
Improved Outcomes

Application of the Chronic Care Model



GENERAL CAUSE VARIATION

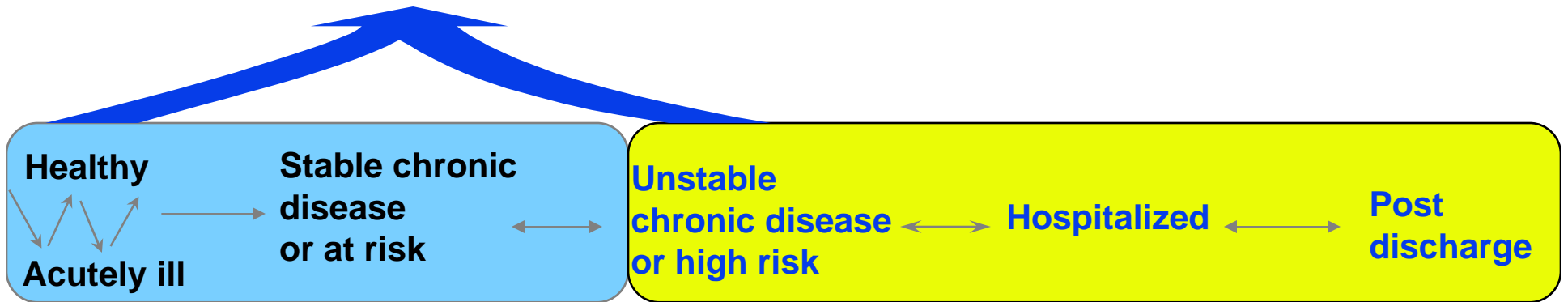
Emphasis: Improve quality for all
Resources : Patients = Few : Many



← **TEAM APPROACH** →
 (Physicians, Nurse Practitioners, Social Work...)

Application of the Chronic Care Model

GENERAL CAUSE VARIATION



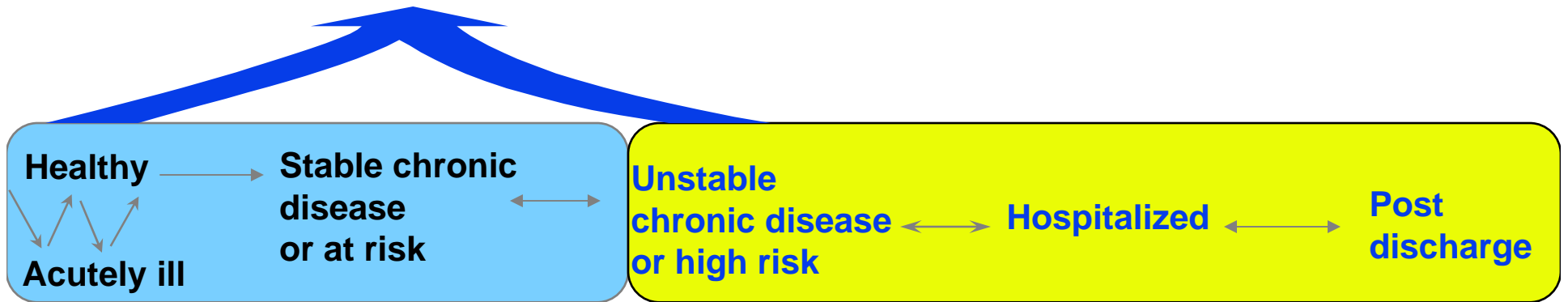
• All-payer disease registries

- claims data (BCBSM; MCARE HMO, CMS; internal billings)
- EMR + data warehouse (lab, text searches, etc.)
- pharmacy data (UMHS employees)
- sample reviews for validation of assignment algorithm
- diabetes(9,537), CHF(3,943), CAD(4,382), depression(3,768), asthma(11,883)

← **TEAM APPROACH** →
(Physicians, Nurse Practitioners, Social Work...)

Application of the Chronic Care Model

GENERAL CAUSE VARIATION



- All-payer disease registries

• Measure evidence-based outcomes

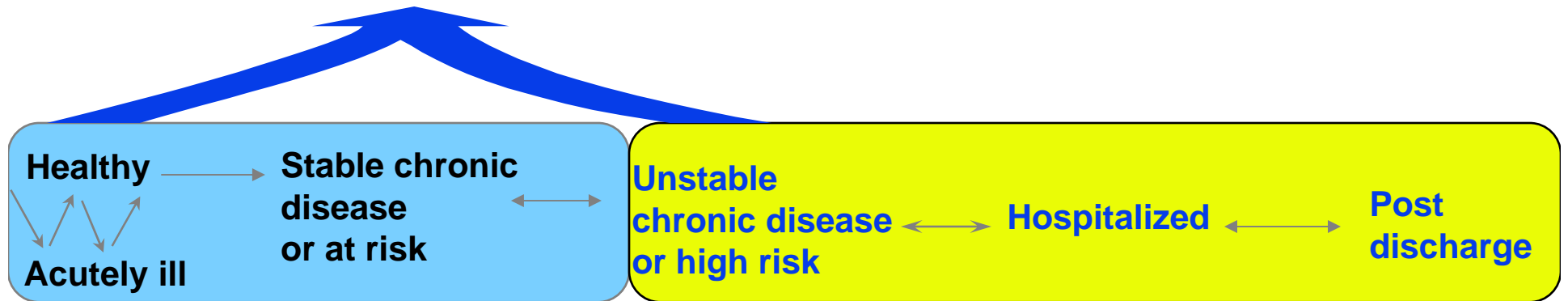
- 25 clinical guidelines reviewed & approved by UMHS physicians

(<http://www.med.umich.edu/i/oca/practiceguides/>)

← **TEAM APPROACH** →
(Physicians, Nurse Practitioners, Social Work...)

Application of the Chronic Care Model

GENERAL CAUSE VARIATION



- All-payer disease registries
- Measure evidence-based outcomes
- **Feedback to providers (by site & clinician)**

← **TEAM APPROACH** →
(Physicians, Nurse Practitioners, Social Work...)

Name	N	A1C Test	A1C < 9%	LDL-C Test	LDL-C < 130 mg/dL	LDL-C < 100 mg/dL	On Statin	Monitor for Nephropathy	Urine Protein & on an ACE/ARB	Foot Exam	Eye Exam	B.P. < 135/80
General Medicine Group A												
Wood GM	764	93%	83%	95%	85%	66%	69%	78%	73%	48%	73%	46%
Don GM	812	94%	83%	95%	83%	63%	65%	80%	77%	56%	65%	50%
Med/Peds	168	87%	73%	91%	76%	54%	68%	83%	90%	59%	71%	51%
Dea GM	185	84%	81%	83%	76%	54%	62%	65%	71%	47%	52%	51%
Alia GM	174	96%	83%	97%	86%	70%	63%	89%	79%	64%	62%	48%
Dele GM	181	97%	88%	99%	91%	74%	76%	86%	94%	72%	66%	46%
Geriatric	373	91%	87%	86%	79%	60%	61%	77%	69%	37%	61%	44%
Arbor GM	205	94%	86%	93%	86%	69%	76%	73%	97%	74%	79%	58%
General Medicine Group B												
Don GM	725	90%	79%	94%	84%	60%	64%	78%	79%	57%	63%	49%
Arbor GM	476	96%	84%	97%	86%	70%	72%	85%	86%	80%	78%	50%
1 Arbor												
Peds	117	96%	78%	96%	80%	55%	66%	93%	66%	60%	73%	51%
an GMF	501	90%	81%	94%	82%	63%	69%	71%	83%	50%	67%	54%
an GMO	340	90%	75%	94%	84%	64%	66%	79%	83%	60%	65%	50%
Family Medicine												
Wood FP	469	93%	80%	96%	83%	61%	63%	67%	82%	79%	74%	49%
Dea FP	660	92%	80%	88%	75%	54%	58%	66%	87%	69%	60%	49%
er FP	193	92%	80%	95%	81%	54%	63%	63%	71%	77%	65%	50%
Arbor FP	225	91%	77%	94%	77%	55%	66%	73%	78%	65%	69%	56%
anti FP	459	98%	82%	93%	79%	56%	70%	78%	83%	84%	77%	43%
Metabolism, Endocrinology and Diabetes (MEND)												
Wood	1897	97%	86%	91%	81%	62%	60%	95%	78%	82%	60%	53%
hton	72	96%	83%	96%	85%	68%	63%	90%	86%	89%	60%	50%
eriatric	72	97%	90%	81%	75%	50%	57%	96%	85%	85%	51%	51%
oman	623	98%	86%	83%	73%	54%	56%	80%	77%	77%	50%	55%
Totals												
ed Primary												
are												
dior	8,560	93%	82%	91%	80%	60%	64%	78%	79%	64%	63%	50%

UMHS All Payor Diabetes Performance; By Health Center, Care Provider

Physician Name	N	A1C Test	A1C < 9%	LDL-C Test	LDL-C < 130 mg/dL	LDL-C < 100 mg/dL	On Statin	Monitor for Nephropathy	Urine Protein & on an ACE/ARB	Foot Exam	Eye Exam	B.P. < 135/80	Of 11 Measures No. ≥ FGP
Physician A	55	98%	87%	98%	93%	78%	86%	78%	83%	75%	76%	55%	11
Physician B	53	100%	98%	100%	92%	85%	92%	98%	100%	25%	77%	55%	10
Physician C	15	100%	93%	100%	80%	60%	57%	73%	100%	60%	67%	60%	9
Physician D	141	95%	87%	99%	91%	70%	75%	82%	68%	33%	71%	54%	9
Physician E	113	95%	81%	95%	82%	58%	67%	74%	86%	45%	68%	49%	8
Physician F	53	94%	81%	96%	91%	72%	61%	85%	100%	60%	91%	51%	8
Physician G	18	94%	78%	94%	94%	56%	64%	89%	100%	44%	83%	39%	7
Physician H	161	89%	80%	96%	88%	71%	63%	46%	85%	45%	65%	47%	6
Physician I	75	91%	79%	95%	84%	60%	60%	87%	60%	52%	77%	47%	5
Physician J	76	84%	72%	88%	63%	45%	49%	79%	69%	58%	66%	34%	2
Site 1	760	93%	83%	96%	86%	66%	68%	74%	79%	47%	72%	49%	9
FGP (Established PC or MEND)		91%	81%	90%	79%	59%	62%	74%	78%	64%	63%	52%	



Chronic Care in the Provider Setting

Dear Connie,

I am tired of feeling like the worst physician in the world. Every time I get the Diabetes Patient Centered Indicator Report I get discouraged or angry--or both. While I appreciate that it is important to remind me of how far I have to go to consistently provide high quality diabetes care, it is equally important that UM provide us with the ability to do so in an efficient way. I truly want to comply with all the current standards in diabetic care.

First and foremost, we need a Diabetic Problem Summary List on Careweb for each diabetic pt. that would contain the items such as you track on the DM Indicator Report. As Careweb is now configured, much of the data is buried under a mountain of other data. This would organize it and flag pts who are lacking in a certain area. Right now it is cumbersome to check back over the last yr to see when the last UMA was, the last A1C, etc.

The Diabetes PSL needs to be linked to pathology and immunizations so that LDL values, A1c, vaccines, etc. would be automatically loaded on the Problem Summary List. Next, we need the ability to create brochures and reminders to be sent to pts re guidelines and if/when they are delinquent. I take no umbrage in patients reminding me that it's time to do test X again.

Perhaps there are other enhancements that we could implement. I am not committed to any of my suggestions, but I AM committed to the idea that we need to work for institutional change if we are going to see any significant improvement in diabetic care. For this reason, I am forwarding this to others I know in Diabetic clinic and General Medicine for their input. The time has come to create a system that will allow us to quickly monitor and treat our diabetics to the best of current data. How do we start?

Patients with no A1C Test in Prior 6 Months

CPI	Name	Age	A1C at Close of			Most Recent Lab, Medication and Visit Data												
			Jul-Dec 04	Jan-Jun 05	Jul-Oct 05	On Insulin	LDLC Date/Result	Statin	BP	Proteinuria Date/Result	ACE or ARB	Foot Exam	Eye Exam	PC or Endo. Visit	Endocrinology Physician	Resident or Nurse Practitioner		
		55	6.7	9.0		Y	10/05	100	Y	121/67	10/05	pos	Y		04/04	07/05		

Patients with A1C > 7.0% in Prior 6 Months

CPI	Name	Age	A1C at Close of			Most Recent Lab, Medication and Visit Data												
			Jul-Dec 04	Jan-Jun 05	Jul-Oct 05	On Insulin	LDLC Date/Result	Statin	BP	Proteinuria Date/Result	ACE or ARB	Foot Exam	Eye Exam	PC or Endo. Visit	Endocrinology Physician	Resident or Nurse Practitioner		
		59			10.3		09/05	83		170/82	09/05	neg	Y	07/05	06/05	07/05		
		55	9.9	10.8	8.7		04/05	85	Y	127/77	04/05	neg		08/05	03/05	08/05		
		59	7.5		7.3		09/05	82	Y	149/84	09/05	neg	Y	09/05	07/05	09/05		

Patients with A1C <= 7.0% in Prior 6 Months

CPI	Name	Age	A1C at Close of			Most Recent Lab, Medication and Visit Data												
			Jul-Dec 04	Jan-Jun 05	Jul-Oct 05	On Insulin	LDLC Date/Result	Statin	BP	Proteinuria Date/Result	ACE or ARB	Foot Exam	Eye Exam	PC or Endo. Visit	Endocrinology Physician	Resident or Nurse Practitioner		
		65	6.4	6.0			06/05	94	Y	131/74	02/05	neg	Y	06/05	05/05	06/05		
		64	6.8		6.2		08/05	19		123/75	08/05	neg		08/05	01/05	08/05		
		55	5.5	5.5			10/05	126		110/64				10/05	04/05	05/05		
		39		5.5	6.0		01/05	55	Y	117/72				10/05	12/04	06/05		
		53	6.0	6.6	6.7		08/05	49	Y	114/78	09/05	neg	Y	05/05	07/05	09/05		

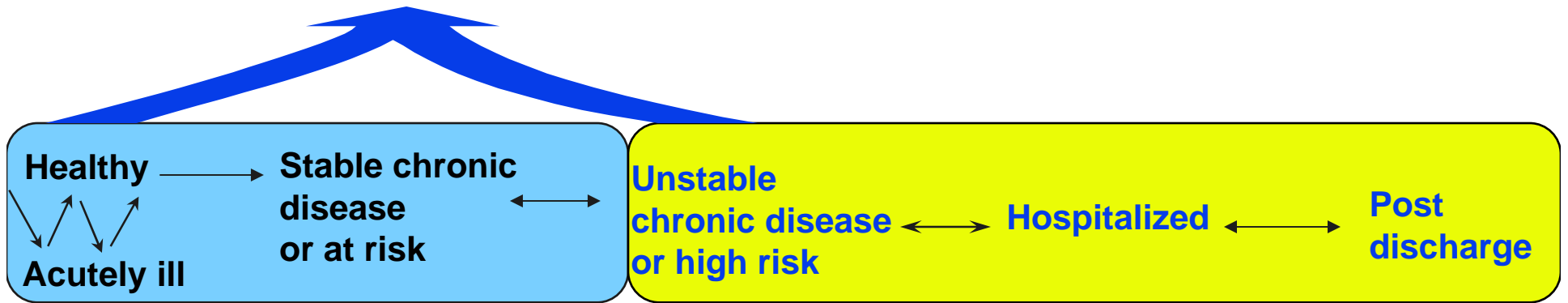
PCP Name:

DATE: Thursday, November 03, 2005

ue	Recent Labs and Exams	Medications	Action Taken
A1c	8/31/2005 A1C 6.6 3/30/2005 A1C 6.3	metformin hcl 500 mg bid	<input type="checkbox"/> Initiated new medication <input type="checkbox"/> Increased dose of medication <input type="checkbox"/> No change in medication <input type="checkbox"/> Ordered A1c
Blood Pressure	9/6/2005 195/96 8/29/2005 132/78 4/28/2005 147/59	lisinopril/hctz 20/25 mg qd	<input type="checkbox"/> Initiated new medication <input type="checkbox"/> Increased dose of medication <input type="checkbox"/> No change in medication
Cholesterol	3/30/2005 LDLC 69 10/18/2004 LDLC 60 7/16/2004 LDLC 54	lipitor 10 mg qd	<input type="checkbox"/> Initiated new medication <input type="checkbox"/> Increased dose of medication <input type="checkbox"/> No change in medication <input type="checkbox"/> Ordered CHD Profile
Diabetes Kidney Screening	9/6/2005 PROTEIN NEG 8/26/2005 UMA/CR 6		<input type="checkbox"/> Initiated ACE-I or ARB <input type="checkbox"/> Increased dose of medication <input type="checkbox"/> ACE-I or ARB contraindication <input type="checkbox"/> Ordered UMA
Eye Exam	3/17/2005		<input type="checkbox"/> Provided eye exam referral <input type="checkbox"/> Scheduled eye exam on ___/___/___ <input type="checkbox"/> Updated eye exam date to ___/___/___
Foot Exam	9/6/2005		<input type="checkbox"/> Monofilament done <input type="checkbox"/> Pulses checked <input type="checkbox"/> Visual Inspection completed
Goals for Self Managemen			<input type="checkbox"/> Goals set with patient <input type="checkbox"/> Update PSL
Heart Protection Medication		lipitor 10 mg qd	<input type="checkbox"/> Initiated Statin <input type="checkbox"/> Initiated Aspirin <input type="checkbox"/> Statin/Aspirin Contraindication

Application of the Chronic Care Model

GENERAL CAUSE VARIATION



- All-payer disease registries
- Measure evidence-based outcomes
- Feedback to providers (by site & clinician)

• Patient education & self-management

← **TEAM APPROACH** →
(Physicians, Nurse Practitioners, Social Work...)



Self Management Goals

- Pilot: reminder **postcard** or phone call
- Educate providers and staff regarding documentation of self management in Problem Summary List
- Assess role of home-based monitoring (CHF)

Enter Self Management Goal or Health Maintenance Data in PSL

Click 'Self management goal'

Enter 'Additional information', the 'date', and click 'Save'

*If the exact date is not known enter the month and year.

UMHS - CareWeb careweb_2_9_9_fix3 (CAREWEBWE4-2) - Microsoft Internet Explorer

Address: https://carewebwe4.med.umich.edu/careweb/command?cmd=edu.umich.med.careweb.patient.web.ChangePa

Reg#: Name: DOB: Sex: M Age: User Name: KMAHONEY

Problem Summary - Edit Health Maintenance / Chronic Care Management

Return to PSL History ?

Health Maintenance / Chronic Care Management:

Please make a selection:

- Cholesterol
- DEXA Scan
- Mammogram
- Pap Smear
- PSA
- Advance directive
- Asthma action plan
- Control substance contract
- Self management goal
- UM Anticoagulation INR Range
- Other
- Never tobacco user
- Former tobacco user
- Current tobacco user
- Environmental Tobacco Smoke
- Diabetes eye exam
- Foot exam - visual, sensory, pulses
- Left ventricular ejection fraction

Additional Information: _____

Date: _____ Today

Authoring Doctor Number: _____ Find

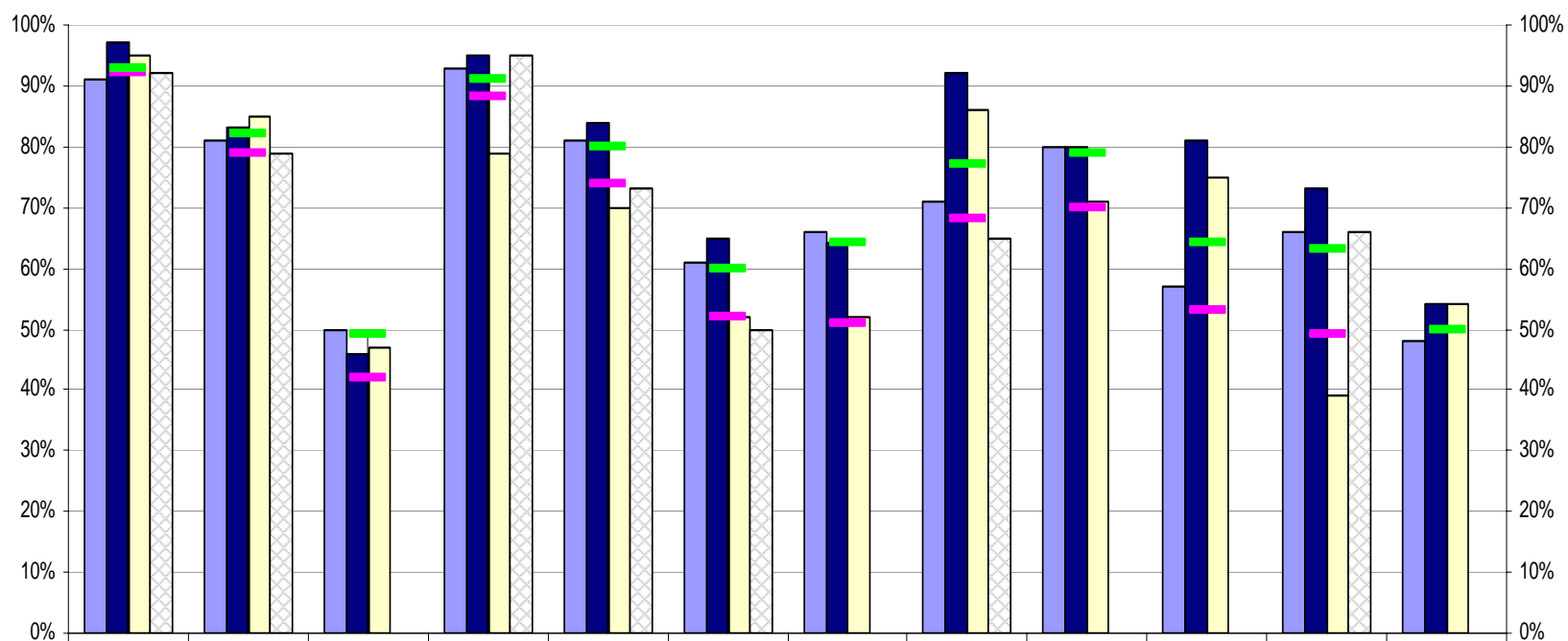
Save

Existing Items

Done Local intranet

UMHS All Payer Diabetes Quality Indicators

Through 12/31/2005; compared to HEDIS 90th percentile as well as to previous time-point (June 30, 2004)



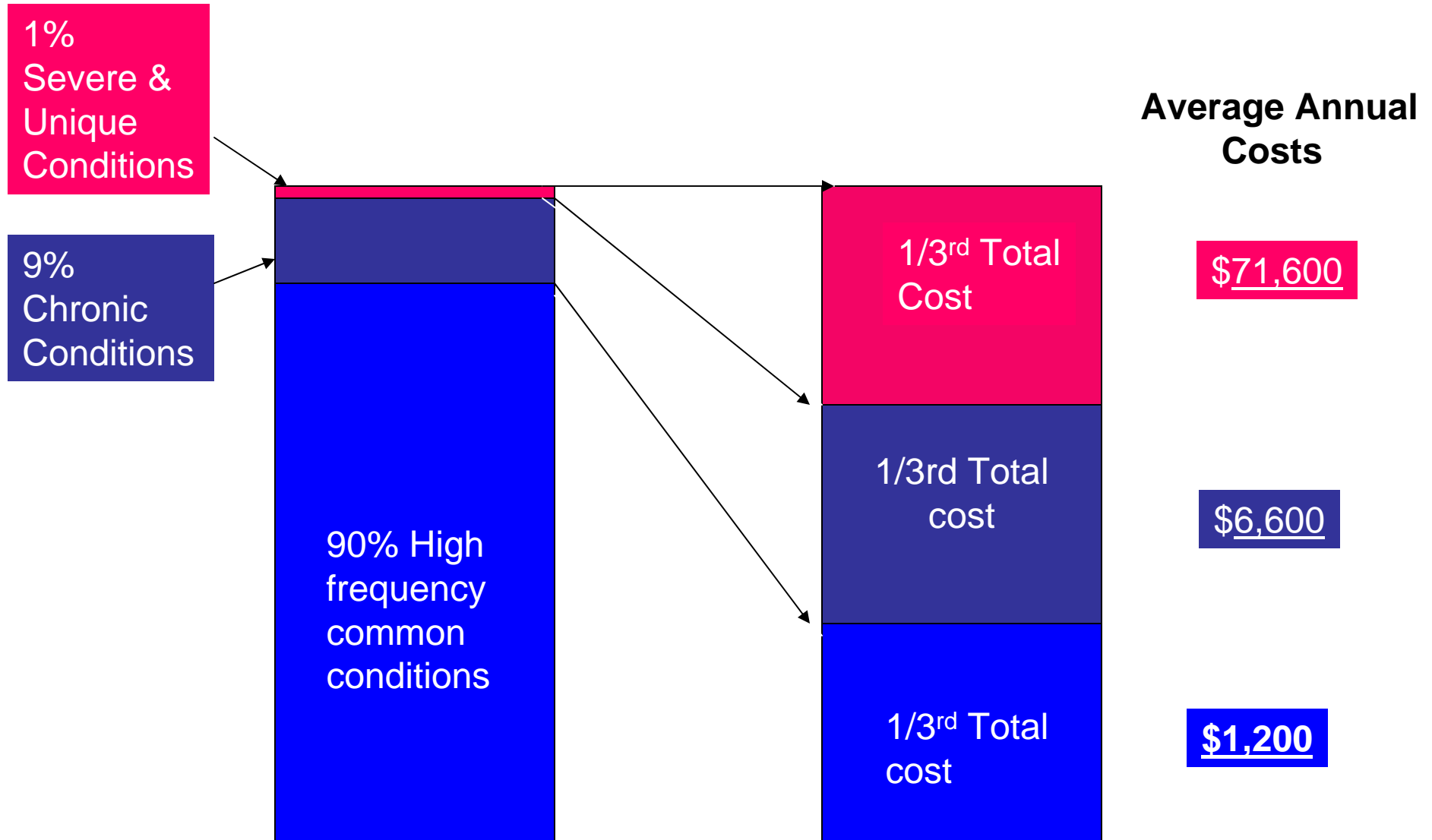
	A1C Test	A1C < 9%	A1C < 7%	LDL-C Test	LDLC < 130mg/dL	LDLC < 100mg/dL	On Statin	Monitor for Nephropathy	Proteinuria and on ACE/ARB	Foot Exam	Eye Exam	BP < 135/80
■ PC Only (N=5,582)	91%	81%	50%	93%	81%	61%	66%	71%	80%	57%	66%	48%
■ Jointly Managed (N=1,640)	97%	83%	46%	95%	84%	65%	64%	92%	80%	81%	73%	54%
□ E&M Only (N=1,340)	95%	85%	47%	79%	70%	52%	52%	86%	71%	75%	39%	54%
□ HEDIS 90th (CY 2003)	92%	79%		95%	73%	50%		65%			66%	
— Total 6/30/2004	92%	79%	42%	88%	74%	52%	51%	68%	70%	53%	49%	
— Total 12/31/2005 (N=8,562)	93%	82%	49%	91%	80%	60%	64%	77%	79%	64%	63%	50%



CAD Outcomes

- **79% of pts. With LDL < 100 in past 12 mos. (goal \geq 80%)**
- **88% on anti-hyperlipidemic medication (goal \geq 90%)**
- **88% on platelet aggregation medication (goal \geq 90%)**

Driving 1/3rd of Health Care Costs: The 80%:20% Rule



From: Franklin Health, Chase H&O

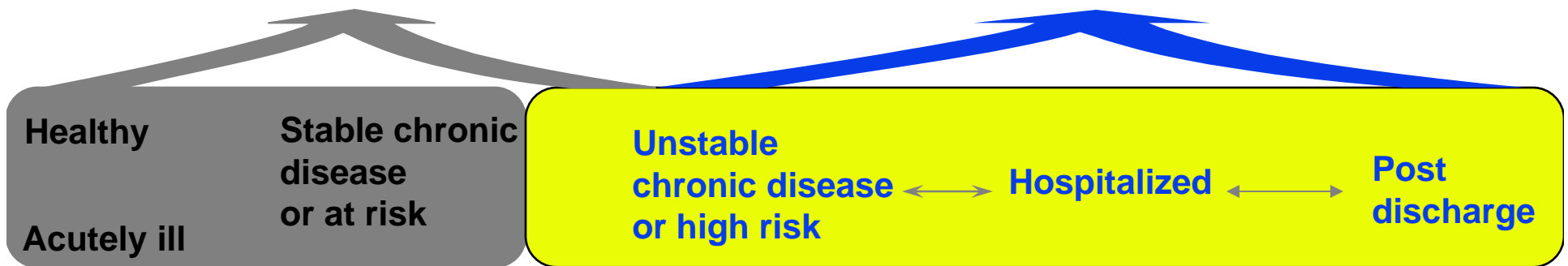
Application of the Chronic Care Model

SPECIAL CAUSE VARIATION

Emphasis = Intensive Case Management

Resources:Patients = Few:Few

GENERAL CAUSE VARIATION



- All-payer disease registries
- Measure evidence-based outcomes
- Feedback to providers
- Patient education & self-mgt.
- Resources : Patients = Few:Many
- Emphasis = Improve quality for all

• 6 JCAHO certified disease management programs;
specialty physician + nurse team:

- Asthma
- Diabetes
- Depression
- Heart Failure
- Stroke
- Spine Pain

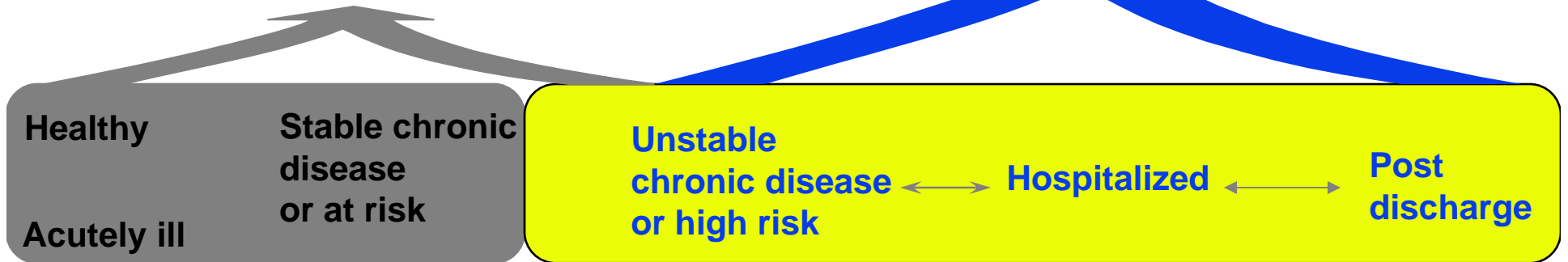
← TEAM APPROACH →

(Physicians, Nurse Practitioners, Social Work...)

Application of the Chronic Care Model

SPECIAL CAUSE VARIATION

GENERAL CAUSE VARIATION



• 6 JCAHO certified disease management programs

• Health Navigator

- All-payer disease registries
- Measure evidence-based outcomes
- Feedback to providers
- Patient education & self-mgt.
- Resources : Patients = Few:Many
- Emphasis = Improve quality for all

- **RNs & Social Workers**
- **#1 complaint: "feeling lost in a complicated system"**
- **Same-day MMC notification of discharge or ED visit**
- **High-cost + High risk reports**
- **Transitional care (Consuela!)**



January/February 2001 – Volume 20, Number 1

HEALTH AFFAIRS

Interview:

A Founder of Quality Assessment Encounters A Troubled System Firsthand

By Fitzhugh Mullan, p137-141

“At the University of Michigan, the outpatient and inpatient teams are entirely separate...There are areas where no one takes responsibility, where planning is weak, where I am left on my own ...The system is the problem...Things won't improve until something is done about the design of the system...The system is the responsibility of the doctors and the hospital leadership.

.....tell the committee that Donabedian said they have a problem.”



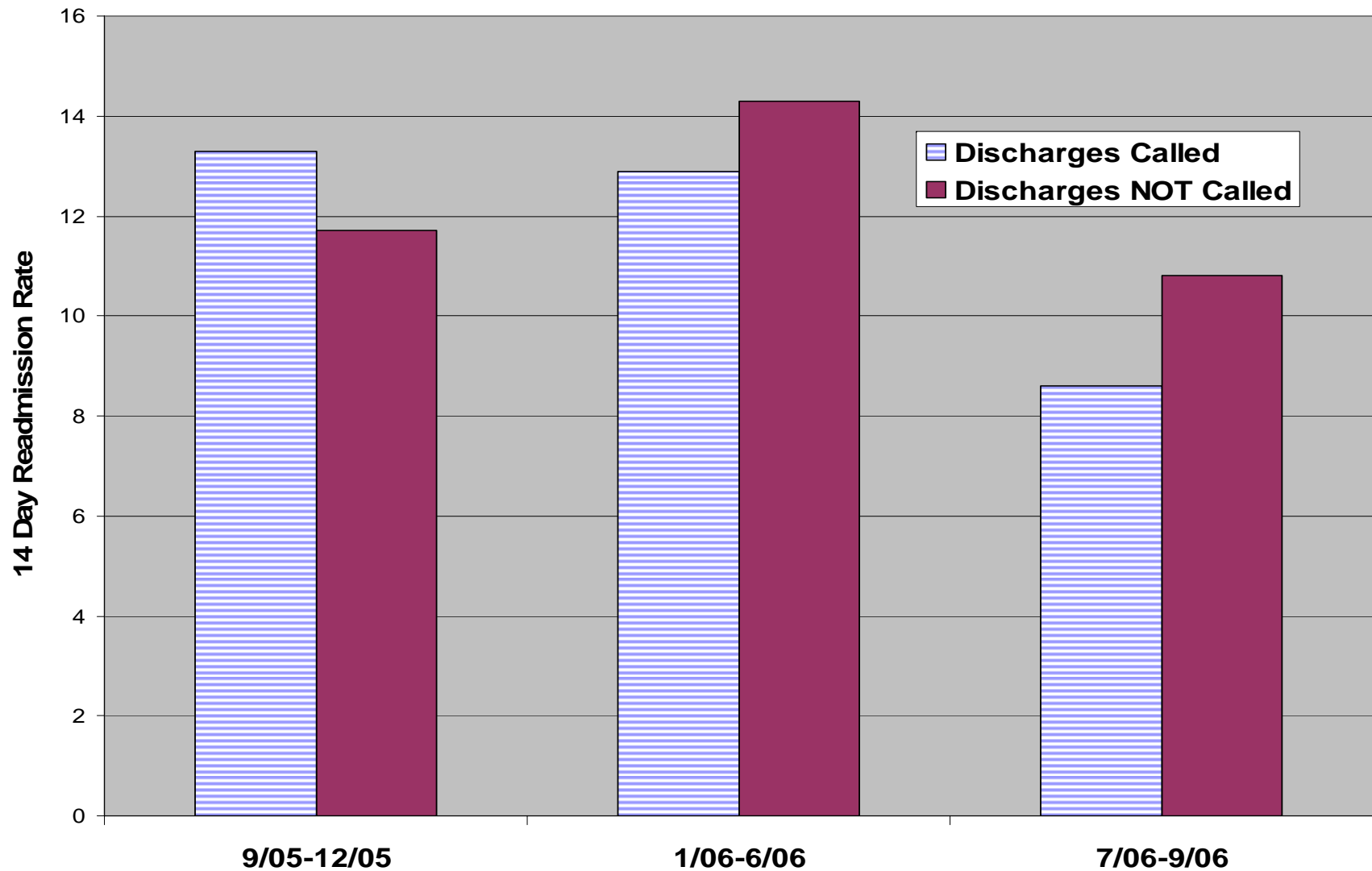
Clinical Initiatives: Transitional Care

Post-Discharge Calls: 1/1/06 - 12/31/06

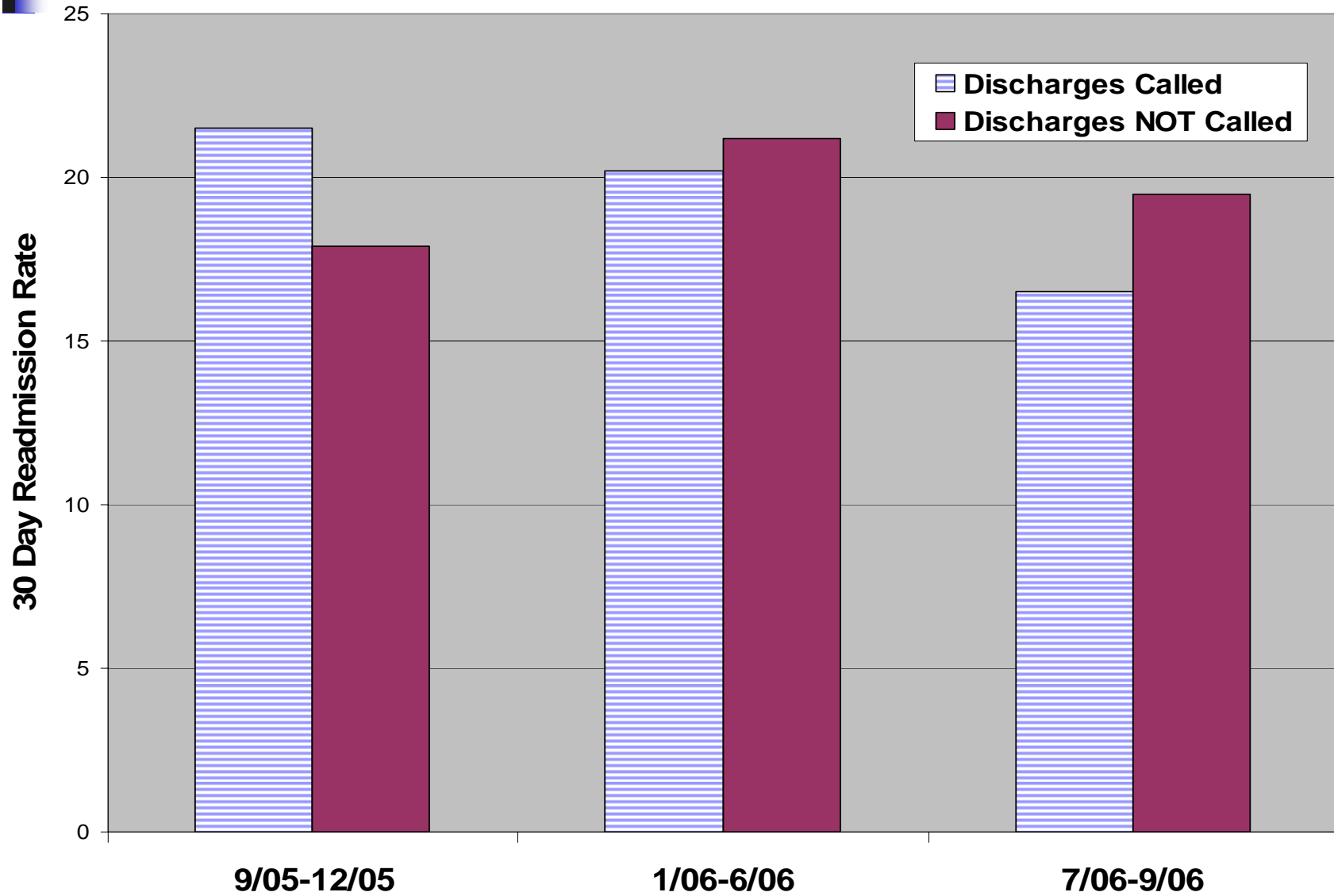
(2 nurses & 1 assistant)

Discharge Follow-up Calls	3,799
Emergency Dept. Follow-up Calls	1,015
TOTAL	4,814
Appointments	2,241
Medications	1,745
Visiting Nurses	1,223
Personal care needs	1,716
Referred to CMS Social Worker	42

14 Day Readmit Rate



30 Day Readmit Rate



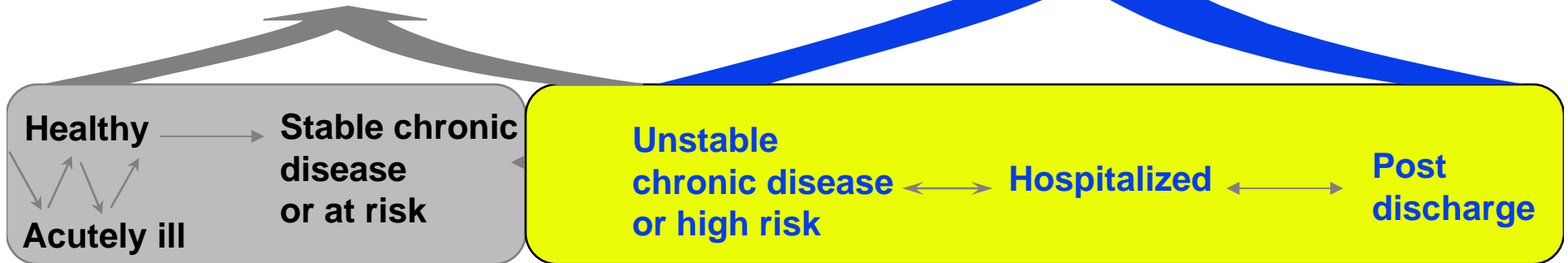
Transaction Costs: The 'Health Navigator'

“I want to express my appreciation and thanks to the Medical Management Center, especially Ms. Sue Smart (Health Navigator) who has been following my case. Ms. Smart has spent considerable time advising me of different options and providing valuable information, which she has attained from numerous independent sources. She has been an invaluable part of my treatment plan. Her advice will minimize extra medical appointments and missed work, which could save tens of thousands of dollars for my employer.”

Application of the Chronic Care Model

SPECIAL CAUSE VARIATION

GENERAL CAUSE VARIATION



- 7 JCAHO certified disease management programs
- Health Navigator

• Pharmacy management program under MMC

- Provider-specific utilization feedback
- Pharm D. participates to advise and assist with intervention
- Cost savings of ~\$500,000
- Funding additional Pharm D. & server space in 2007

DISEASE MANAGEMENT

Volume 9, Number 1, 2006

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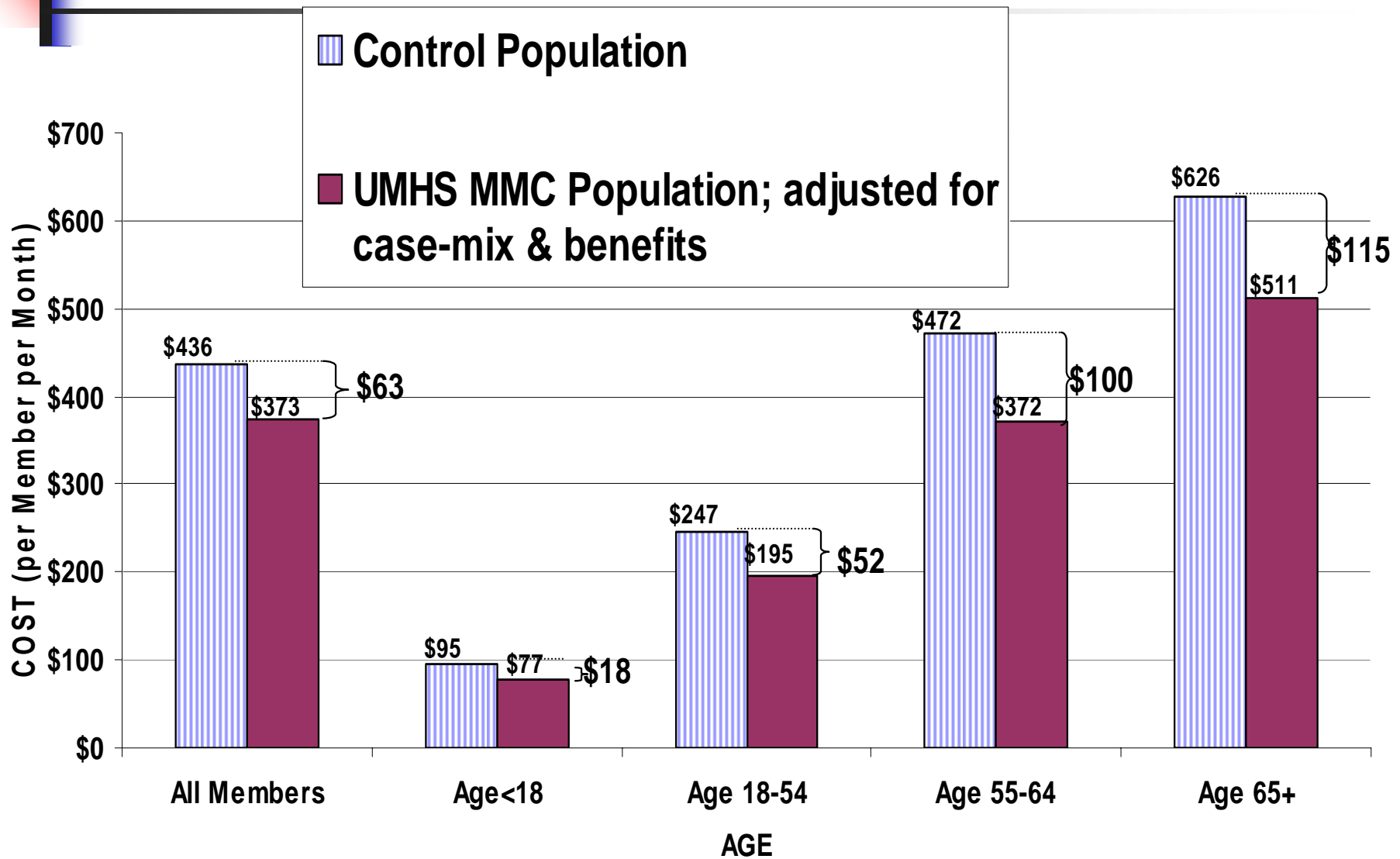
Population-Based Medical and Disease Management: An Evaluation of Cost and Quality

**CHRISTOPHER G. WISE, Ph.D., M.H.A.,¹ VINITA BAHL, D.M.D., M.P.P.,²
RITA MITCHELL,² BRADY T. WEST, M.A.,³ and THOMAS CARLI, M.D.¹**

ABSTRACT

Reports by the Institute of Medicine and the Health Care Financing Administration have emphasized that the integration of medical care delivery, evidence-based medicine, and chronic care disease management may play a significant role in improving the quality of care and reducing medical care costs. The specific aim of this project is to assess the impact of an integrated set of care coordination tools and chronic disease management interventions on utilization, cost, and quality of care for a population of beneficiaries who have complementary health coverage through a plan designed to apply proactive medical and disease management processes. The utilization of health care services by the study population was compared to another population from the same geographic service area and covered by a traditional feefor-service indemnity insurance plan that provided few medical or disease management services. Evaluation of the difference in utilization was based on the difference in the cost permember-per-month (PMPM) in a 1-year measurement period, after adjusting for differences in fee schedules, case-mix and healthcare benefit design. After adjustments for both case-mix and benefit differences, the study group is \$63 PMPM less costly than the comparison population for all members. Cost differences are largest in the 55-64 and 65 and above age groups. The study group is \$115 PMPM lower than the comparison population for the age category of 65 years and older, after adjustments for case-mix and benefits. Health Plan Employer and Data Information Set (HEDIS)-based quality outcomes are near the 90th percentile for most indications. The cost outcomes of a population served by proactive, population-based disease management and complex care management, compared to an unmanaged population, demonstrates the potential of coordinated medical and disease management programs. Further studies utilizing appropriate methodologies would be beneficial. (Disease Management 2006;9:44-55)

Cost Comparisons (PMPM)



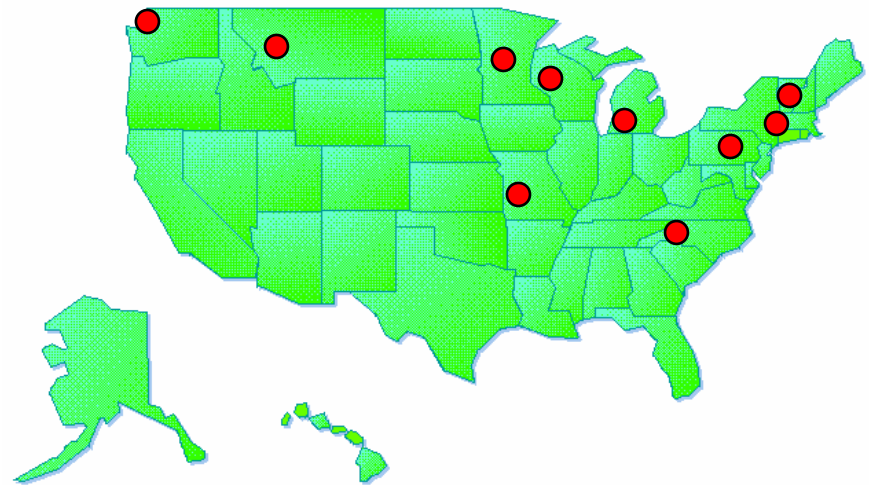


PROGRAMS SUPPORTING OUR EFFORTS

- 1. CMS “Physician Group Practice” Demonstration Project**
- 2. Greater Detroit Area Health Council’s “Saves Lives, Saves Dollars”**
- 3. Blue Cross / Blue Shield of Michigan “Physician Group Incentive Program”**

CMS Physician Group Practice Demonstration Participants

- Geisinger Clinic (PA)
- Marshfield Clinic (WI)
- The Everett Clinic (WA)
- Forsyth Medical Group (NC)
- St John's Health System (MO)
- Deaconess Billings Clinic (MT)
- The University of Michigan (MI)
- Dartmouth-Hitchcock Clinic (NH)
- Park Nicollet Health Services (MN)
- Integrated Resources for Middlesex (CN)





Pay-for-Performance: Calculating the return

- If UM holds Medicare per-patient case-mix adjusted cost to **2% less than the growth** in our regional comparison group, UM can “earn back” up to 80% of the savings over 2%
- Amount of savings returned to UM is based on a combination of cost savings and quality
 - Year 1 = 70% cost savings / 30% quality
 - Year 2 = 60% cost savings / 40% quality
 - Year 3 = 50% cost savings / 50% quality
- 25% of earn-back withheld by CMS until end of project



Save Lives/Save Dollars GDAH C

- Region-wide collaborative to **coordinate**:
 - Quality improvement
 - Performance-based differential reimbursement
 - Public reporting
 - Lower the trend \$500M (out of \$30B) over 3 years
- “Create a new working environment among stakeholders in the region”
- **Includes**
 - Ford, GM, UAW, DTE, Comerica, Chamber, State
 - BCBSM, HMOs, insurers, pharmaceutical companies
 - Health systems, hospitals, POs, State Medical Society



BCBSM PGIP

- ❑ Payments based on provider's proportion of ambulatory activity (E & M codes)
- ❑ Quarterly payments to provider groups for:
 - 'All payer' chronic disease registries
 - Innovative implementation strategies
 - Measured outcomes
 - Credit for working with other provider groups
 - Advancing Wagner's 'Chronic Care Model'
- ❑ Payments to MMC for advancing structure & processes; no risk arrangement
- ❑ Opportunity to collaborate with payer-based programs & other provider groups

Community
Resources and Policies

Health System
Health Care Organization

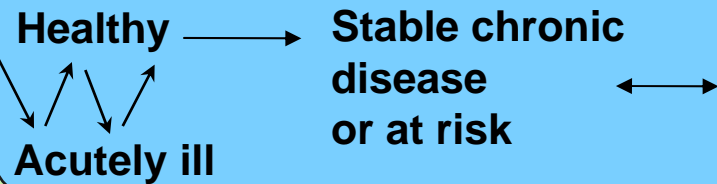
Self-
Management
Support

Delivery
System
Design

Decision
Support

Clinical
Information
Systems

GENERAL CAUSE VARIATION



SPECIAL CAUSE VARIATION



- All-payer registries
- Measure evidence-based outcomes
- Feedback to providers
- Patient ed. & self-mgt.
- Resources : Patients = Few : Many
- Emphasis = Improve quality for all

- 6 JCAHO cert. DM programs
- Health Navigator
- Patient self-monitoring trial for CHF
- Pharmacy Management
- Resources : Patients = Few : Few
- Emphasis = Intensive case management

BCBSM PGIP

CMS DEMO



BCBSM PGIP & LEAN THINKING

- UMHS, 7 other physician groups & BCBSM collaborating on best models for integrating Chronic Care
- Challenged by best method for implementing Chronic Care Model in structures oriented for acute, episodic care
- Beginning pilots using “Lean Thinking” to help

What is Lean Thinking?



Lean Thinkers...

- Focus on identifying & eliminating waste
(develop new eyes to see)
- Develop knowledge of principles to reduce process & lead time and improve first time quality
(deliver value for the customer)
- Conduct regular process improvement events and track results
(create a culture of continuous improvement)

Achieving Lean Healthcare

Principles



Elements

Team Concept
People Involvement
Open Communication
Shop Floor Management

Standard Work
Workplace Organization
Visual Management
Takt Time

Quality Standards
Feedback / Feedforward
In-process Control and Verification
Process Validation

Simple Process Flow
Pull Systems
Level Scheduling
Small Lot

Problem Solving
CIP
Business Plan
Deployment
Andon

The Perfect Process

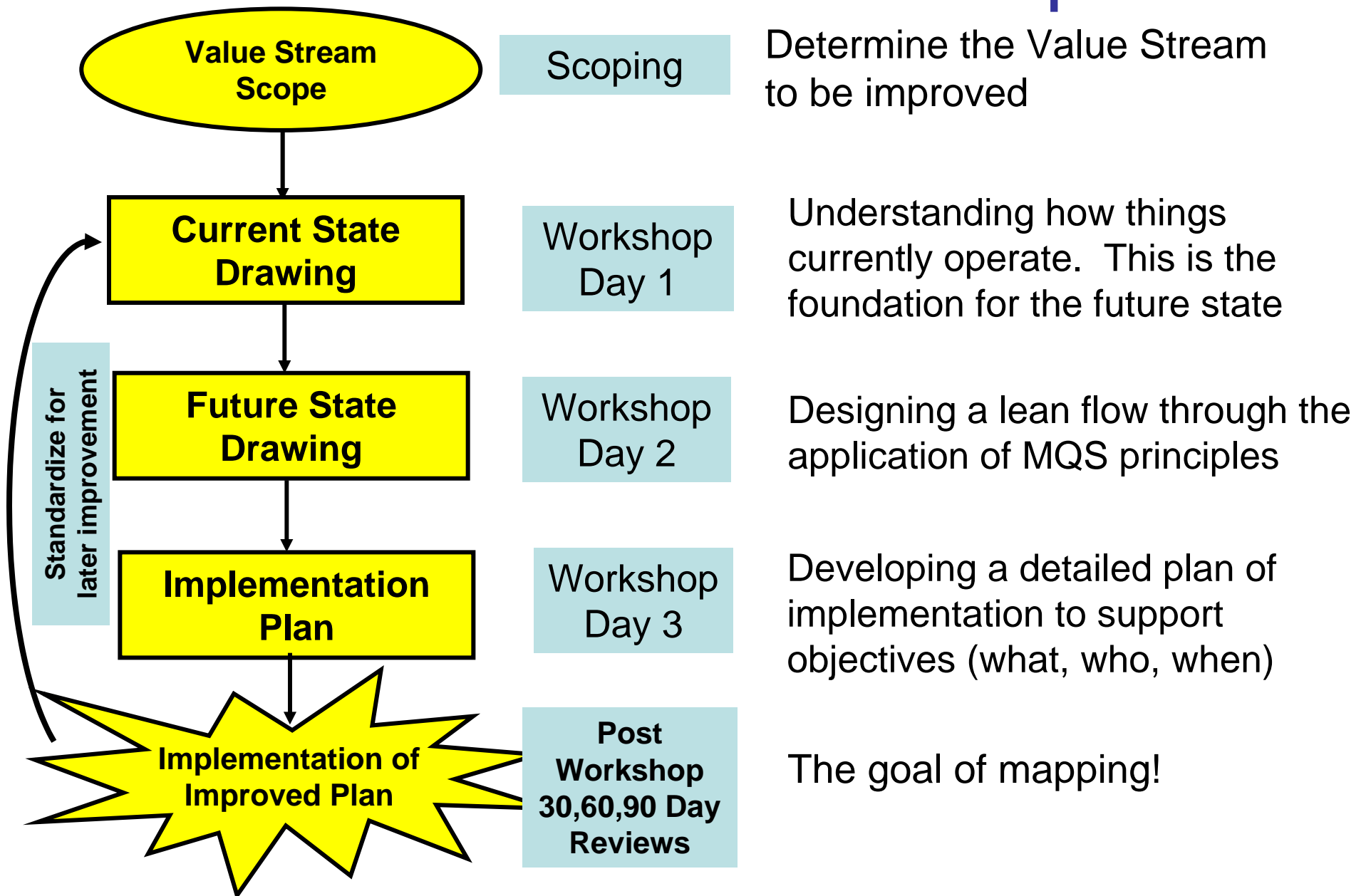


Value Stream Mapping

- Starts with a focus on the customer
- Links process steps and information flow
- **Reveals problems with flow**
- Documents performance of the process
 - Customer expectations
 - Process metrics
 - Visibility of progress and quality
- Reveals waste
- **Gets people involved in creating the process innovation plan**



Value Stream Workshop





BCBSM PGIP Lean Objectives

- Collaboratively expose process and layout problems;
- Be comprehensive without becoming overwhelmed: what do we look at??
- Redesign the care model to meet the goals and restrictions
- Address infrastructure needs for new model



QUESTIONS???

What is a Value Stream?

A value stream involves **all the steps**, both value added and non value added, required to complete a **product or service** from **beginning to end**



- Visual Representation of a Value Stream
- Pencil & Paper Tool
- Establishes a common language to document processes
- Provides a blueprint for improvement

Lean Transformations Model

