Population Health Management & the Medical Neighborhood

Patient Centered Primary Care Collaborative
Monthly National Briefing
September 26, 2013

Outline

- What is Population Health Management?
- Registries
- Health Risk Assessment
- Risk Stratification/Predictive Modeling
- Patient Enrollment
- Communication
- Enter Case Management
- “Care” vs. “Case” Management
- Some Published Data

So…what is “Population Health Management?”

AHRQ Definition:

An approach to care that uses information on a group ("population") of patients within a primary care practice or group of practices to improve the care and clinical outcomes of patients within that practice

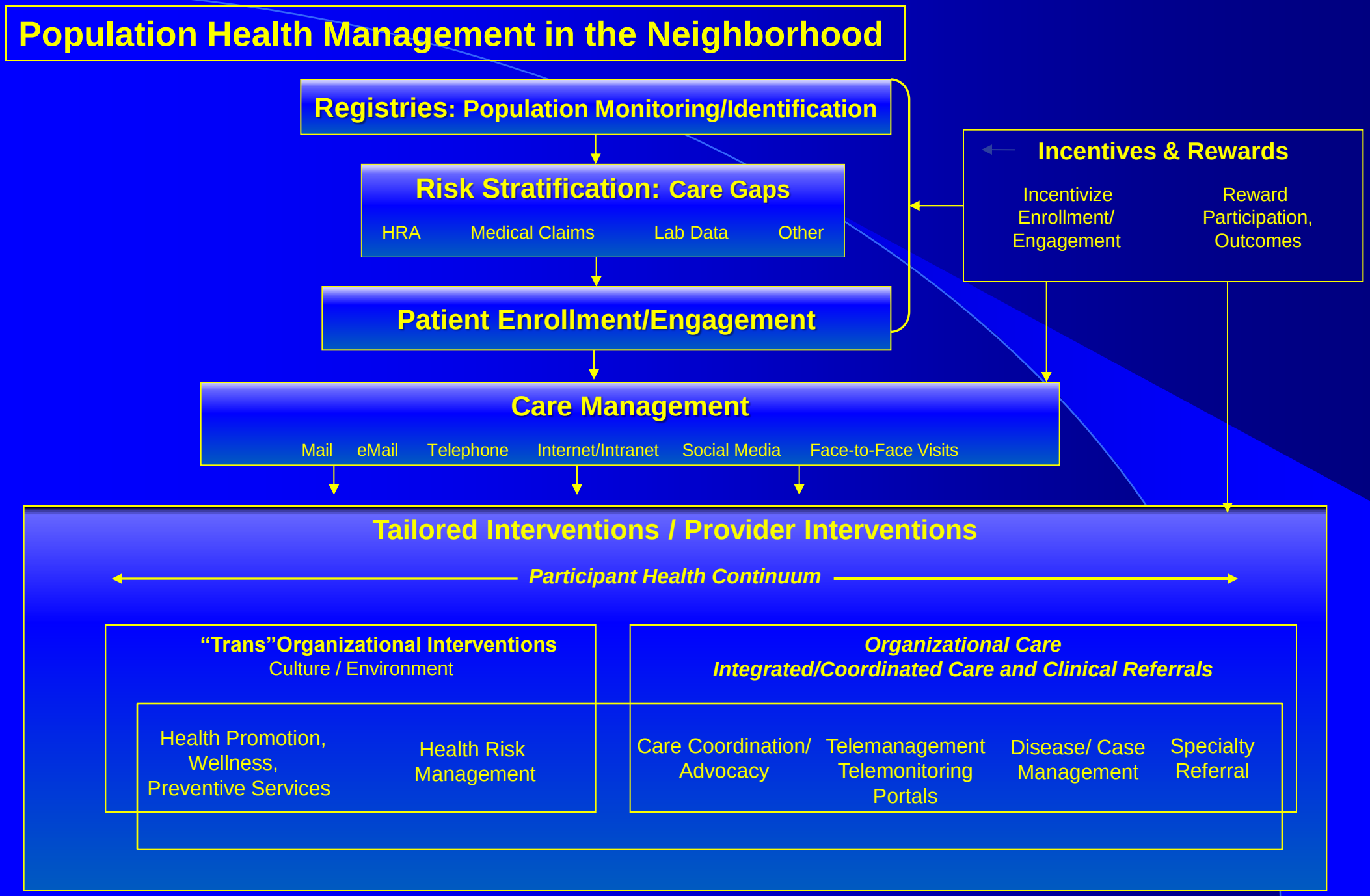
Vendor Definition:

- Physician guided, proactive, accountable and patient-centric population approach to care, that is…..
- Designed to enable informed and activated patients address both illness and long term health…..
- That relies on the integrated involvement of all health care professionals who coordinate with the patient, caregivers and families.

Three core principles:

1. Primary care physician leadership
2. Patient activation, involvement and personal responsibility;
3. Programs of coordination ranging from wellness to chronic case management

Population Health Management in the Neighborhood



Registries

A medical home/neighborhood's searchable data warehouse

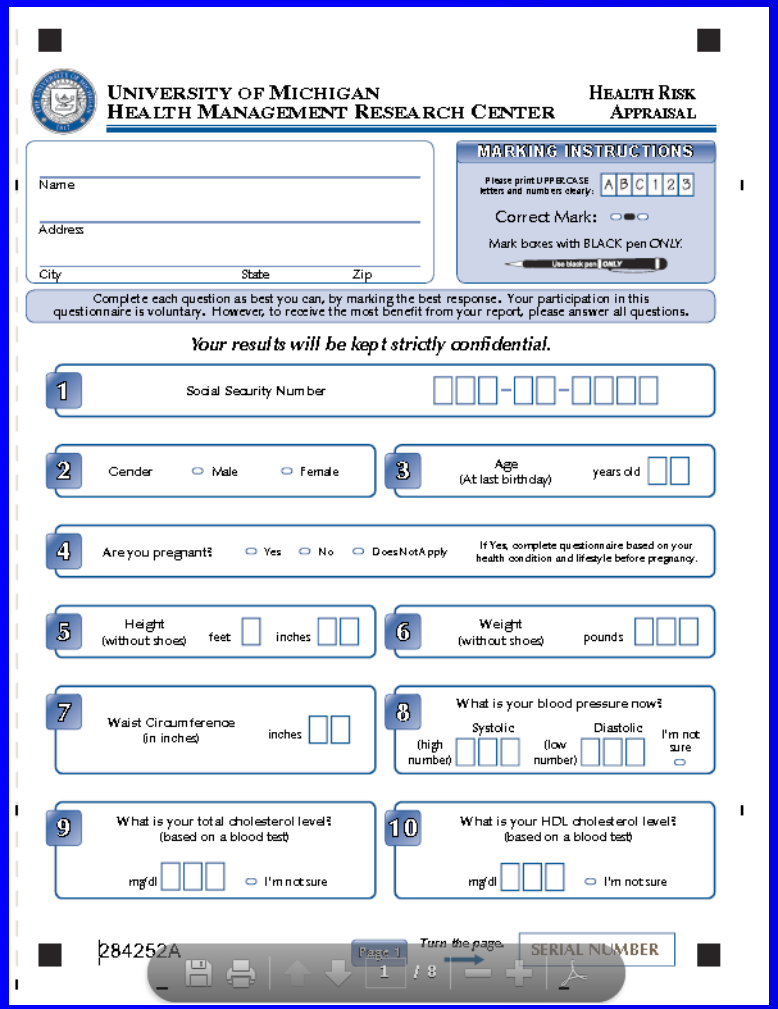
Inputs:

1. Electronic health record….
2. Administrative and insurance claims data….
3. Health surveys (especially for new enrollees)….
4. Public databases?

- Very much an evolving science
- Economies of scale count
- Enable "Big Data" research

Schneewieiss et al: Methods for Developing and analyzing clinical rich data for patient-centered outcomes research. Pharmacoepidemiology & Drug Safety 2012; 21(S1): 1-5

Health Risk Assessment (HRA)



UNIVERSITY OF MICHIGAN
HEALTH MANAGEMENT RESEARCH CENTER

HEALTH RISK APPRAISAL

Name

Address

City State Zip

MARKING INSTRUCTIONS

Please print UPPERCASE letters and numbers clearly: A B C 1 2 3

Correct Mark:

Mark boxes with BLACK pen ONLY.

Use black pen ONLY

Complete each question as best you can, by marking the best response. Your participation in this questionnaire is voluntary. However, to receive the most benefit from your report, please answer all questions.

Your results will be kept strictly confidential.

1 Social Security Number ☐☐☐-☐☐-☐☐☐☐

2 Gender ○ Male ○ Female

3 Age (At last birthday) years old ☐☐

4 Are you pregnant? ○ Yes ○ No ○ Does Not Apply If Yes, complete questionnaire based on your health condition and lifestyle before pregnancy.

5 Height (without shoes) feet ☐ inches ☐☐

6 Weight (without shoes) pounds ☐☐☐

7 Waist Circumference (in inches) inches ☐☐

8 What is your blood pressure now? Systolic (high number) ☐☐☐ Diastolic (low number) ☐☐☐ I'm not sure ○

9 What is your total cholesterol level? (based on a blood test) mg/dl ☐☐☐ ○ I'm not sure

10 What is your HDL cholesterol level? (based on a blood test) mg/dl ☐☐☐ ○ I'm not sure

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Any survey that objectively estimates chances of outcomes from selected causes within a defined period of time

- HRAs can be used to:
  - notify an individual (and provider)of global or disease specific risk and/or
  - can also be used for provide summary statistics for program planning
  - *Workflow! Typically not used by physicians for their patients in day-to-day clinical care.*

http://www.innovations.ahrq.gov/content.aspx?id=2282

Risk Stratification

POPULATION HEALTH MANAGEMENT
Volume 14, Number 5, 2011

DOI: 10.1089/pop.2010.0054

Predictive Models for Diabetes Patients in Medicaid

Christopher S. Hollenbeak, PhD,[1] Mark Chirumbole,[2] Benjamin Novinger,[2] Jaan Sidorov, MD, MHSA,[2] and Franklin M. Din, DMD, DABFD, DACFE, MA[2]

Abstract

Predictive modeling can be used to identify persons who are at increased risk for adverse health outcomes. We used demographic, medical, and pharmacy claims data to create a gender-specific model for fee-for-service Medicaid based on 2 states' data that can assist with the identification of persons with an elevated future risk of hospitalization, elevated claims expense, or death. Depending on age and the outcome of interest, the area under the receiver operating characteristic curve for this predictive modeling tool across 2 states' diabetes populations ranged from 0.608 to 0.834. We conclude that this analysis yielded a level of accuracy comparable to other predictive models that can be used to target patient enrollment in population-based care management. (*Population Health Management* 2011;14:239–242)

Statistical associations that array vulnerability from high to low based on:

1. "Actionable" care gaps
2. Willingness to change

"Vulnerability" is…..

- patients' future "trajectory"

  into higher risk categories such as hospitalization, death or "avoidable claims "

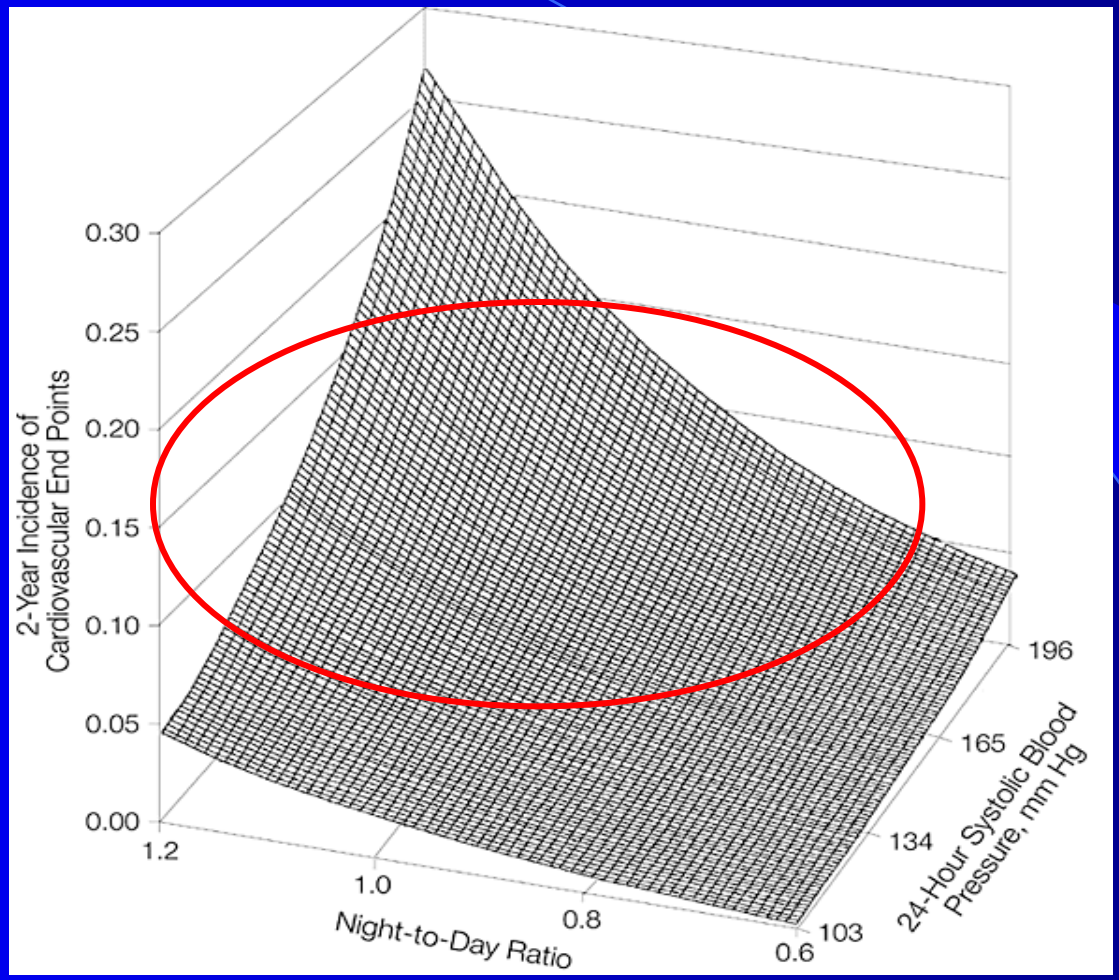
Other predictions: obesity, diabetes mellitus and other chronic conditions.

Detects "invisible" patients

Once again:

1. *Workflow: Typically not used by physicians for their patients in clinical care*
2. *Equitability: should patients be moved to the front of the line?*

Uneven Distribution of Risk
~ Not All Hypertension is Created Equal ~



Staessen, J. A. et al. JAMA 1999;282:539-546.

JAMA

Patient Enrollment

- Clinically & culturally appropriate referral and recruitment into programs
- Multiple channels, including mail, telephony and social media
- Opt-in" vs. "opt-out"
- Incentives are an option
- *Recruitment rates typically run 5-15% thanks to limited patient incentives and lack of physician buy-in, time and compensation of work effort.*

A Word on Patient Engagement

- Old: print materials, one-on-one face-to-face and telephonic instruction
- New: education that leverages *behavior change* using psychological principles of recruitment, assessment of barriers, formulation of strategies to overcome barriers, goal setting, coaching, support and follow-up.
- Includes “texting,” variations of email and social media such as Facebook.
- New approaches: “shared decision making” and “patient centered care.”

Enter Case Management

http://www.medpagetoday.com/Washington-Watch/Reform/41125

- Collaborative assessment, planning, facilitation & advocacy for care services that meet an individual's health needs through available resources that promote quality cost-effective outcomes
- Provides education, informed decision making and a care plan that coordinates insurance benefit designs, psychosocial issues, input of family, community resources and the physicians' judgment.
- Associated with greater frequency of self care, control of lifestyle behaviors, problem solving, medication compliance and improved outcomes
- Advocates for social factors such as access to good housing, places to exercise, safe neighborhoods, and health food sources
- Another point of access to the health care system
- Meets all of the challenges from the prior slides:
  - Include the HRA in care planning
  - Use predictive modeling to prioritize patients and needs
  - Facilitate patient enrollment
  - Pursue engagement
  - Coordinate programs, referrals, social factors

“Case” vs. “Care” Management

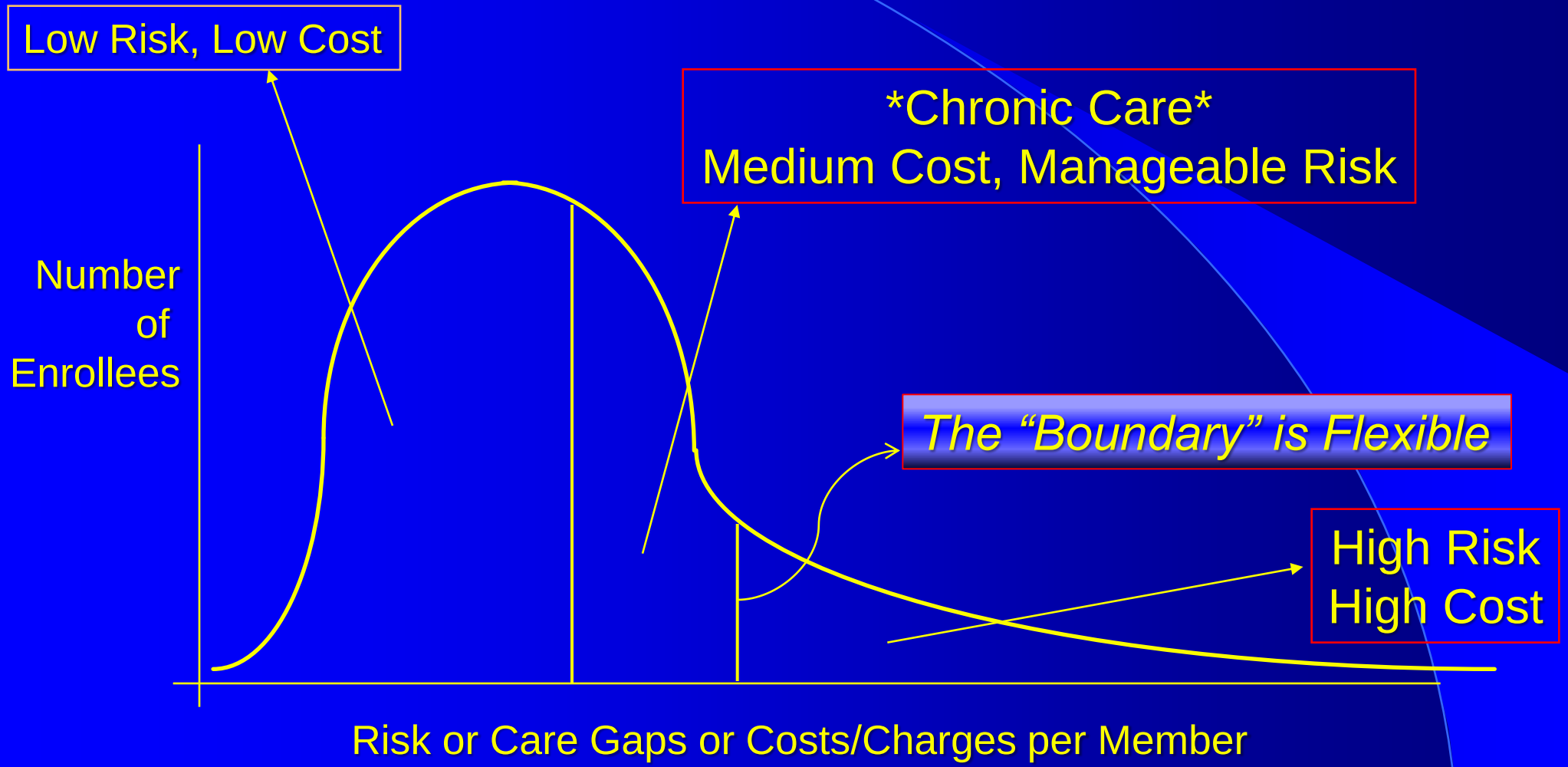
Case Management

- the collaborative process of assessment, planning, facilitation and advocacy for options and services to meet an individual’s health needs through communication and available resources to promote quality cost-effective outcomes
- Individual, high touch, high intensity

Care Management

- Package of physician supervised interventions that assist patients & their support systems in managing medical conditions and related psychosocial problems.
- Seeks to improve patients’ functional health status, enhancing the coordination of care, eliminating the duplication of services, and reducing the need for expensive medical services
- Populations, high tech & medium intensity

Care vs. Case Management



Why Care/Case Management
An Emerging Opportunity for Collaborative Teaming

- Provider organizations, care management companies & managed care organizations agree:
  - Physician leadership
  - Teaming
  - Accountability
- Studies are demonstrating credible cost-savings[1]
- Offer patients another pathway to primary care[2]
- Growing interest among regulators, policymakers and government in remotely-based care management & telemonitoring programs

1. Bourbeau et al: Economic benefits of self-management in COPD. Chest 2006;I30:I704
2. Kangovi et al: Understanding why patients of low socioeconomic status prefer hospitals over ambulatory care. Health Affairs 2013;32(7):1196

Features of Successful Care and Case Management

Health Professionals Who Are…

Mobile

Interact with patients than once a month

"Top of license"

Connected

Full time dedicated

Credentialed

Telephonic & face to face

Patient self-care

Change Agents

A Randomized Trial of Remote Care-Management Strategy

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Table 1. Risk Stratification, Outreach Criteria, and Coaching Techniques According to Cohort.

Cohort*	Stratification	Outreach Criterion	Coaching Technique
Subjects with selected chronic conditions (heart failure, CAD, COPD, diabetes, asthma)	Predicted financial risk based on linear regression models	Lower cutoff point for predicted future costs in enhanced-support group	Behavioral change and motivational counseling
Subjects with preference-sensitive conditions that put them at risk for surgical intervention (lumbar surgery, knee or hip replacement or repair, cardiac revascularization, prostatectomy for benign prostate hyperplasia, hysterectomy or myomectomy for benign conditions)†	Predicted risk of surgical intervention based on logistic-regression models	Lower cutoff point for predicted future costs in enhanced-support group	Shared decision making
Subjects with other high-risk conditions (cardiac arrhythmias, angina, obesity, tobacco use, depression or anxiety, hypertension with complications, back and neck pain, osteoarthritis, hyperlipidemia, abdominal pain) or with multiple hospital or emergency room visits‡	Predicted financial risk based on linear regression models	Enhanced-support group only	Behavioral change and motivational counseling
All others	—	—	—

* The cohorts were identified on the basis of claims data. CAD denotes coronary artery disease, and COPD chronic obstructive pulmonary disease.

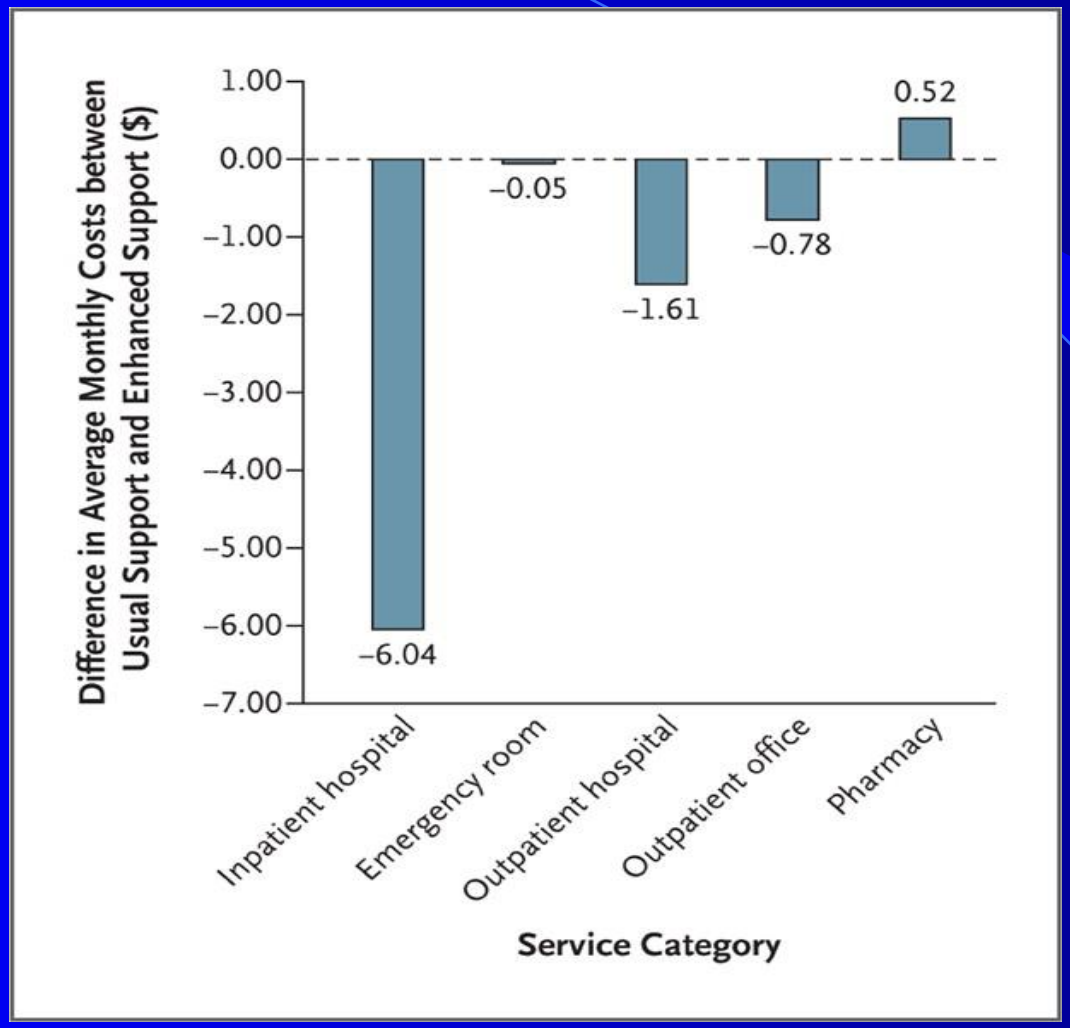
† A preference-sensitive condition is one for which at least two valid, alternative treatment strategies are available. Since the risks and benefits of the options often differ, the choice of treatment involves trade-offs; therefore, the choice should depend on informed patients making decisions on the basis of their preferences and values. This group had none of the selected chronic conditions.

‡ This group had none of the selected chronic or preference-sensitive conditions.

Wennberg DE et al. N Engl J Med 2010;363:1245-1255.

The NEW ENGLAND JOURNAL of MEDICINE

Enhanced vs. Usual Support, According to Service Category.



Wennberg DE et al. N Engl J Med 2010;363:1245-1255.

Case Management, PHM, Physician Reality

The majority of care in many areas of the U.S is still provided by small physician-owned practices

PHM Interventions made up of:

- a health risk assessment,
- risk stratification with predictive modeling that identifies patients at greatest need
- a registry that enrolls and tracks patients and their pertinent outcomes over time
- use of aggressive patient enrollment strategies using an opt-out approach
- supporting providers and patients with evidence-based clinical guidelines that guide decision making
- facilitating the establishment of tailored interventions that are documented and supported by care plans

...CAN BE SUCCESSFULLY INTEGRATED WITH...

Primary care settings that are:

- Community based
- High performing
- Willing to participate
- Typically significant number of patients who are discharged from an inpatient facility or skilled nursing setting
- A sufficient number of high risk and "impactable" individuals with care needs to warrant care and case management
- Agreeable to having ready access of the care manager to the non-physician personnel in the clinic

http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/downloads/mccall_mgh_cmhcb_final_2010.pdf

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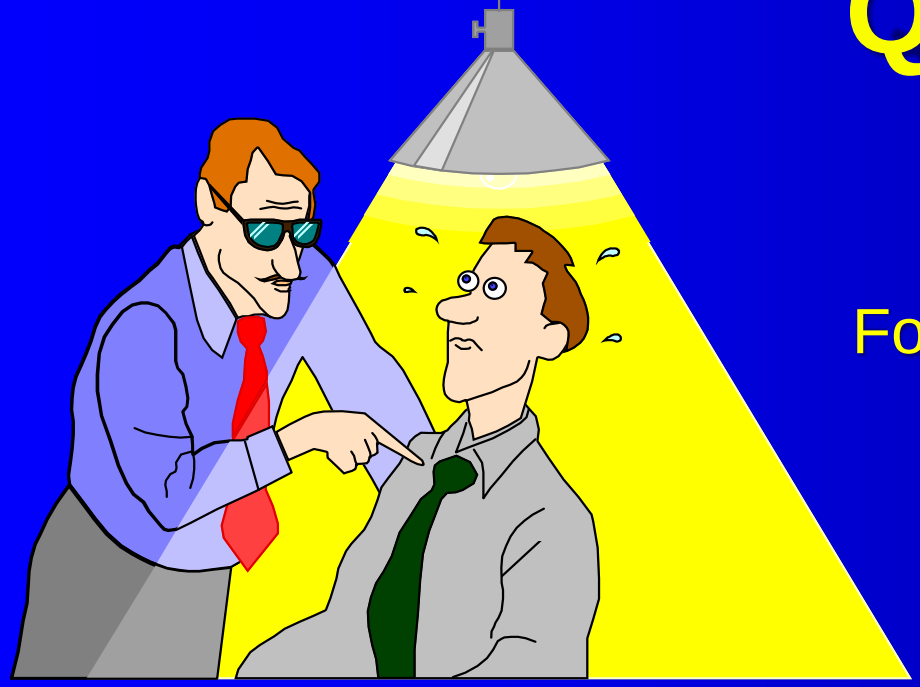
"Researchers claim that during an average ~~meeting~~ webinar, each idea is met with nine criticisms"
Lance H.K. Secretan: *Reclaiming Higher Ground: Creating Organizations that Inspire the Soul*



Questions?

For follow-up……
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Disease Management Care Blog