
Incorporating Evidence-based Medicine into Disease Management Programs

The Disease Management Colloquium
Philadelphia

June 28, 2004
Paul H. Keckley, Ph.D.

Executive Director, Vanderbilt Center for Evidence-based Medicine
Associate Professor, Vanderbilt University School of Medicine



About VCEBM

- *Mission - Promote understanding and adoption of evidence-based medicine*
- *Program Focus:*
 - *Educational Programs*
 - *Research Programs*
 - *Consumer and provider adherence factors*
 - *Role of incentives, media coverage, benefits structures, DTC, technology*
 - *EBM in health system transformation*



Agenda

- What is evidence-based medicine?
- What is its intersection with disease management?
- What are implications for DM providers?



Results of Non-Adherence to EBM: Quality Gaps

Preventive care deficiencies

- Child immunizations 76%
- Influenza vaccine 52%
- Pap smear 82%

Acute care deficiencies

- Antibiotic misuse 30-70%
- Prenatal care 74%



Surgery care deficiencies

- Inappropriate hysterectomy 16%
- Inappropriate CABG surgeries 14%

Chronic care deficiencies

- Beta blockers 50%
- Diabetes eye exam 53%

Hospital care deficiencies

- Proper CHF care 50%
- Preventable deaths 14%
- Preventable ADEs 1.8/100 admits
 - Life threatening 20%
 - Serious 43%

Transformation Strategies: Key Themes

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<p><i>Strong/Unclear</i> Technology standards Medicare Choice</p>	<p><i>Strong/Clear</i> Prevention Disease management Consumer-directed care Evidence-based medicine Administrative simplification</p>
<p><i>Weak/Unclear</i> Uninsured/Access Prescription drug coverage</p>	<p><i>Weak/Clear</i> Medical malpractice reform Employer mandates</p>

DIRECTION/STRATEGY

Delphi Survey Results: What do you consider to be the most important strategies/initiatives for health system transformation in the United State? (88 Healthcare Executives)



Evidence-based Medicine: Definition

Evidence-based medicine is the judicious integration of relevant best scientific literature with clinical experience and patient preferences and values to achieve better care for patient populations.



Three Dimensions of EBM



Guidelines: The Basis for EBM

“Systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances”

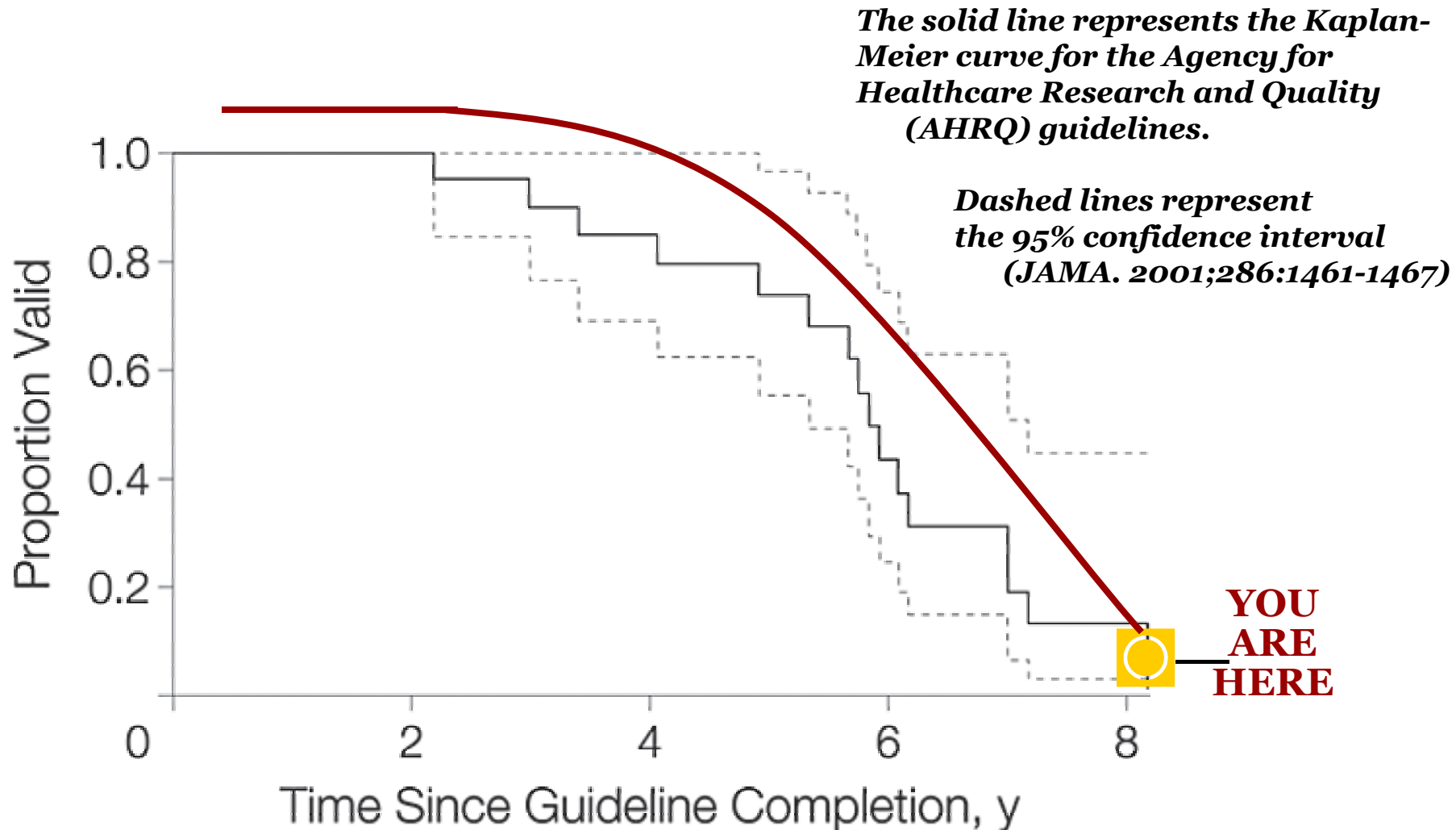
– IOM '92

Derived from...

- 10,000 RCTs annually
- 4,000 guidelines since 1989
- 2,500 periodicals in NLS



Challenge : Timeliness



Challenge: Lack of Evidence

How many questions have any evidence? (BMJ 2000)



Reality: Providers Don't Practice EBM...

McGlynn et al "The Quality of Health Care Delivered to Adults in the United States" NEJM June 26, 2003

<i>Condition</i>	<i>% Recommended Care Received</i>
Senile Cataract	78.7
Breast cancer	75.7
Prenatal Care	73.0
Low back pain	68.5
Coronary artery disease	68.0
Hypertension	64.7
Congestive heart failure	63.9
Cerebrovascular disease	59.1
Chronic obstructive pulmonary disease	58.0
Depression	57.7
Orthopedic conditions	57.2
Osteoarthritis	57.3
Colorectal cancer	53.9

<i>Condition</i>	<i>% Recommended Care Received</i>
Asthma	53.5
Benign prostatic hyperplasia	53.0
Hyperlipidemia	48.6
Diabetes mellitus	45.4
Headache	45.2
Urinary tract infection	40.7
Community acquired pneumonia	39.0
Sexually transmitted diseases	36.7
Dyspepsia/peptic ulcer disease	32.7
Atrial fibrillation	24.7
Hip fracture	22.7
Alcohol dependence	10.5



Resulting in Inappropriate Variation

- ***Underuse...***

- Prevention
- Dosage
- Depression

- ***Overuse...***

- Antibiotics
- Surgery
- Imaging

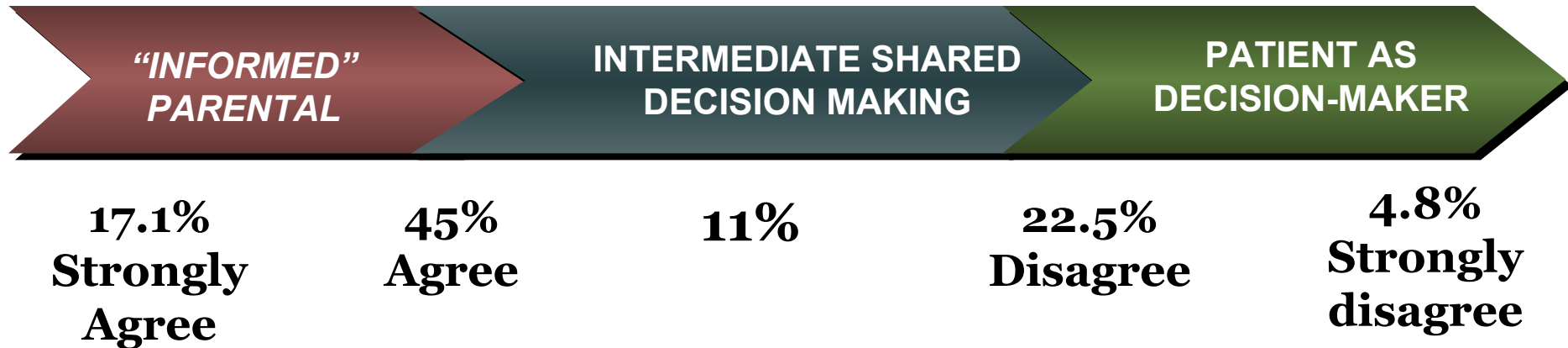
- ***Misuse...***

- Hospital infections
- Drug Events



Reality: Patients don't Adhere..

73% of patients depend on physicians to make decisions for them!



*Adapted from Guyatt et al. Incorporating Patient Values in:
Guyatt et al. Users' Guide to the Medical Literature: Essentials
of Evidence –based Clinical Practice. JAMA 2001

**Arora NK and McHorney CA. Med Care. 2000; 38:335



And Don't Understand

- Erratic Noncompliance: Failure to follow therapy because it is difficult, complicated, or lifestyle disruptions interfere with regimen.
- Unwitting Noncompliance: Patients believe they are complying but fail to do so due to language barriers, cognitive impairment, lack of knowledge, etc.
- Intentional Noncompliance: Patient makes a clear decision to alter or stop treatment.



Relevance to Disease Management

- *Current Model...*
 - Guideline development and updating to stay current
 - Population stratification especially in complex conditions
 - Coaching tactics



Observations: DM Today

- We're still in ***Wave One*** DM
 - Limited diagnoses targets
 - Non-scalable business models
 - Questions about ROI (long-term)
 - Relatively small industry
 - Primary focus: patient adherence/prevention

...a nurse-driven coaching model for chronic disease populations



Evidence-based Care Management

- *Emerging Model...*
 - Collaborative care management including PCP..to stimulate adherence, reduce variation
 - Use of information technology



Looking Ahead: An Expanded Model



VUMC study tries new tactic to cut health-care costs

12-22-04

A Vanderbilt University Medical Center study is considering a novel way to cut health-care costs.

If insurers paid doctors for talking patiently with patients — instead of seeing as many people as possible in a day — we all might become healthier and spend less on medical care.

- Hypertension
- Congestive heart failure
- Type II Diabetes



"If somebody pays doctors to see patients, they are going to see patients. If someone pays doctors to care for patients, maybe they'll do what they need to do," said Dr. Steve Coulter, chief medical officer for Chattanooga-based Blue Cross Blue Shield of Tennessee, which helped organize the Vanderbilt study and is playing a key role in it.



Screening for Type II Diabetes

- In past two years...
 - *55% had influenza immunization*
 - *66% had foot exam*
 - *67% had retinal eye exam*
 - *90% had blood sugar test*
 - *94% had lipid profile*

21% had all five!



Physician Office Visit Information Gaps

- Methodology: 168 case presentations with structured encounter, transcripts for evidence (questions) and missing data (data deficit units)
- 81% of return visits to physicians missing information (mean DDUs 3.7/visit)
- Chart Available: 95% of all visits

Tang, et al. AMIA, 1994: 575-579



Requires use of Informatics at the Point of Care, in Home

	<i>Medical Practices</i>	<i>Hospital</i>	<i>ASC</i>
Financial System	91%	100%	97%
Clinical Decision Support*	3%	15%	5%

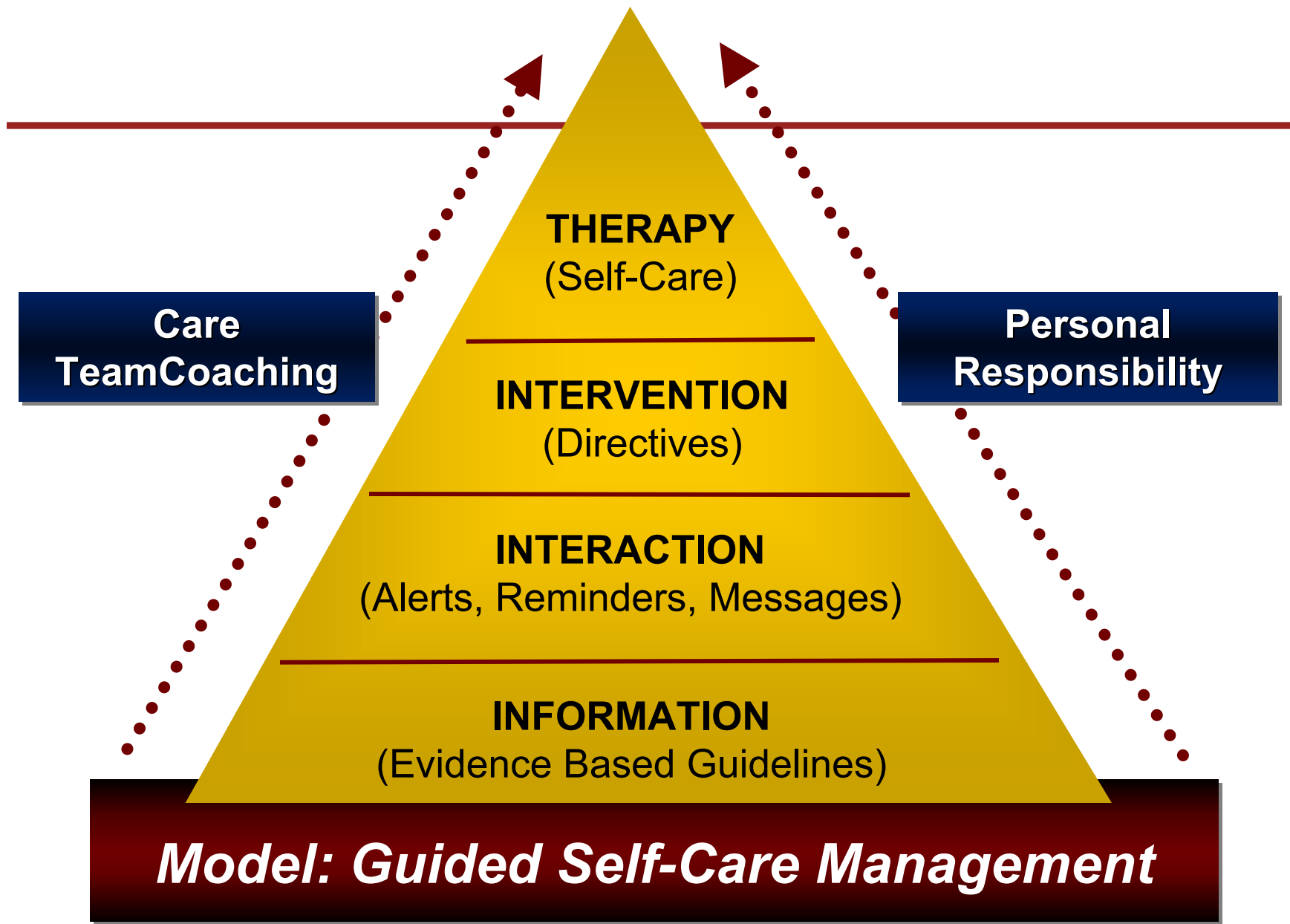


Chronic Care Management in Medical Groups (Casalino)

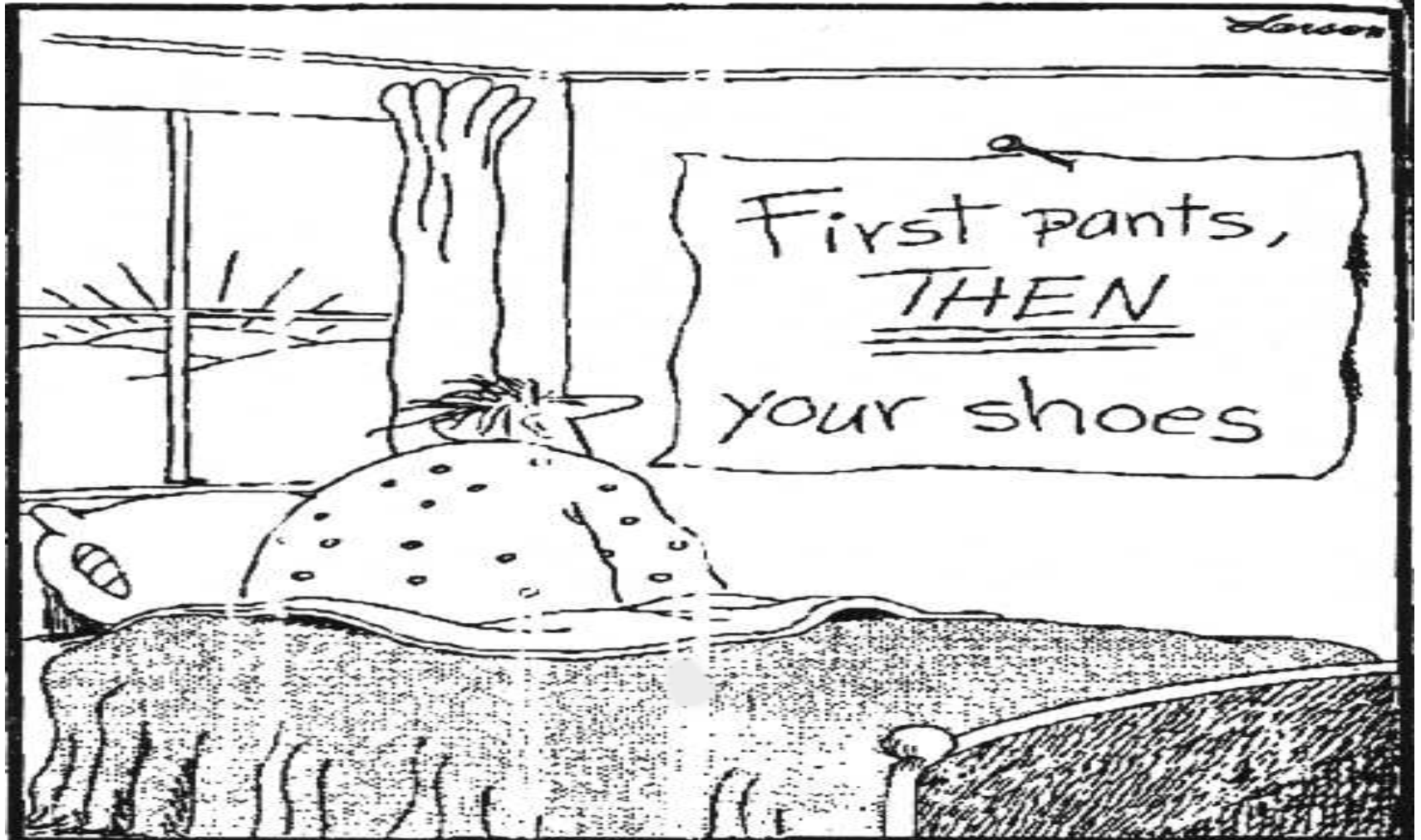
- Methodology: Survey of 1000 physician organizations evaluating four conditions and four strategies
- Conditions: CHF, diabetes, asthma, depression
 - *19% use case management*
 - *17% use physician feedback*
 - *15% use disease registries*
 - *11% use guidelines with reminders*
 - *5% used all four!*

Casalino et al "External Incentives, Information Technology, and Organized Processes to Improve Health Care Quality for Patients with Chronic Diseases" JAMA 2003: 289 (4): 434-441





Non-adherence: Not about bad people, about a flawed system!



Contact

Paul H. Keckley, Ph.D.

Executive Director

Vanderbilt Center for Evidence-based Medicine

3401 West End Avenue, Suite 290

Nashville, Tennessee 37203

paul.keckley@vanderbilt.edu

615-343-3922

www.ebm.vanderbilt.edu

