



*Agency for Healthcare Research and Quality*

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# **Chronic Illness Care:**

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## **Back to the Future**

November 19, 2004

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# Chronic Illness Care 2011

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- **What we know and do now**
- What a “Martian” would see
- How chronic illness care has evolved
- Critical success factors

# Case Presentation - 1

- Arnold G, a 54 yo patient with diabetes and hypertension visits a primary care clinician for abdominal pain of 2-3 days duration.
- Prior to his visit, he and his pc team leader have reviewed his symptoms and history by e-mail, and have examined possible causes by going to the *PC Navigator*, a system that has been developed to improve diagnosis and management of patients with undifferentiated symptoms.

## Case Presentation - 2

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- Arnold's pc team has also reviewed Arnold's recent entries to the jointly held electronic medical record.
- A diabetic for 10 years, Arnold manages his condition with diet and exercise, after several bumpy years on insulin. His self-management is supplemented by e-mail consultations prn.

## Case Presentation - 3

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- When Arnold and his clinician meet -- at his convenience -- they discuss his options and agree on a diagnostic test, after reviewing possible outcomes of the test and options. The test is scheduled for that day.
- Before leaving the practice, Arnold leads a group visit at which there are several medical students -- required to attend to learn from patients about chronic illness management.

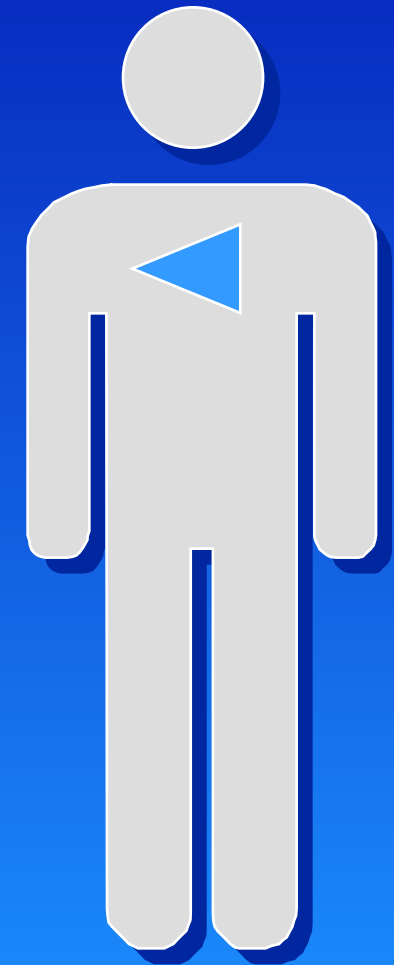
## Case Presentation - 4

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- The patients in the group visit provide feedback to the students about how they can enhance patients' skills in self management.
- Arnold then gets his diagnostic test, and before the end of the day his primary care clinician has e-mailed the results and suggested next steps.

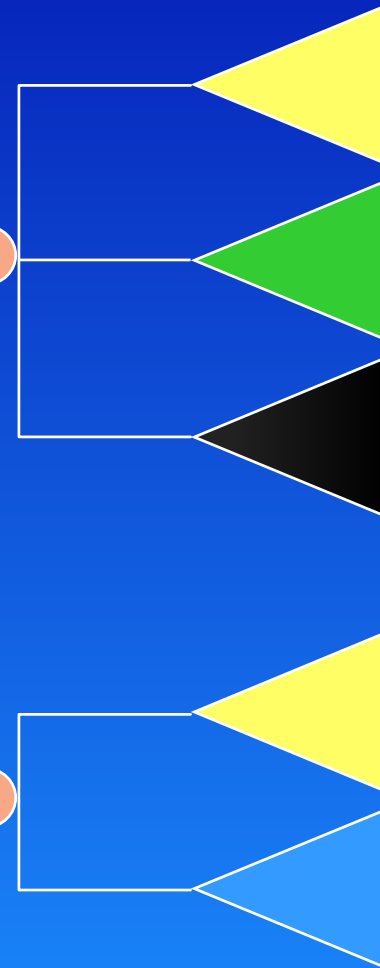
# SHARED DECISION MAKING: DECISIONS AND OUTCOMES

Patient



Alternative 1

Alternative 2







# Shared Decision Making

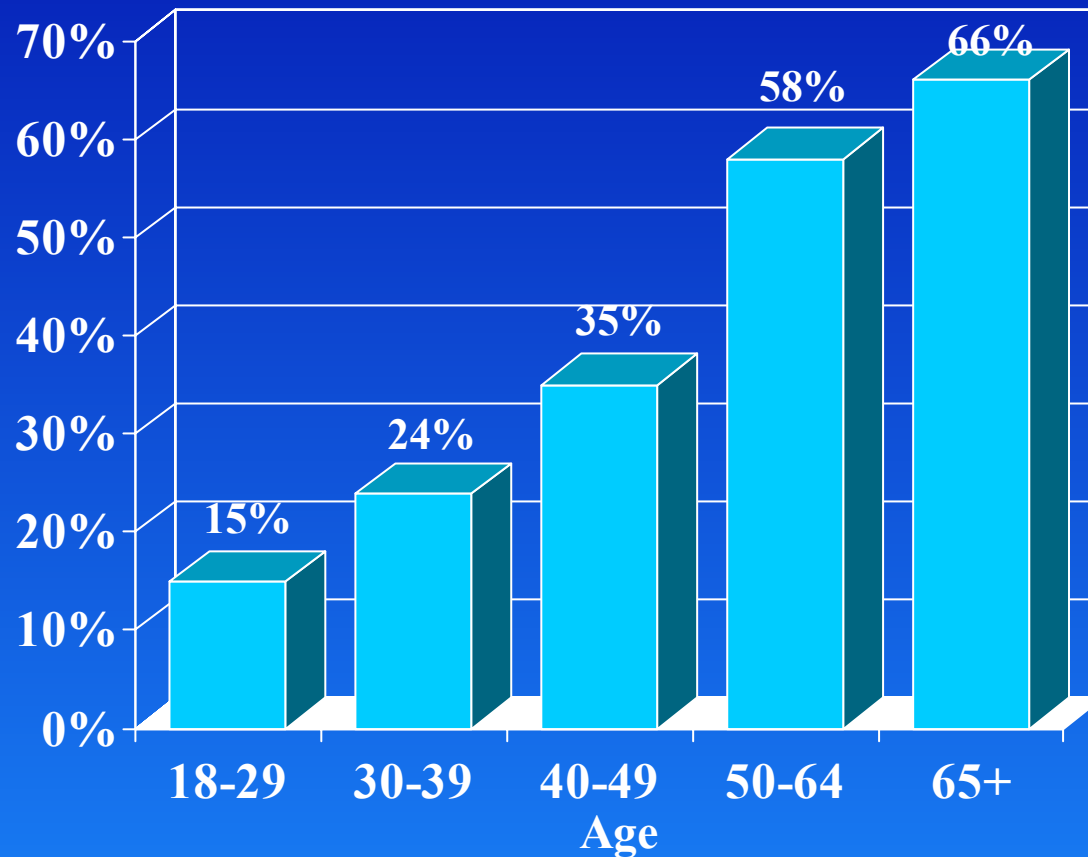
- Telephone-Linked Communications (TLC), a Computer-based telecommunications system
  - Gives guidance on asthma management to families
  - Collects information to share with the family's primary care provider
- Web-Enabled Asthma Application for Personalized Medical Communication
  - Facilitates communication between providers and patients

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# Percent of Americans Saying “I Have A Chronic Condition”



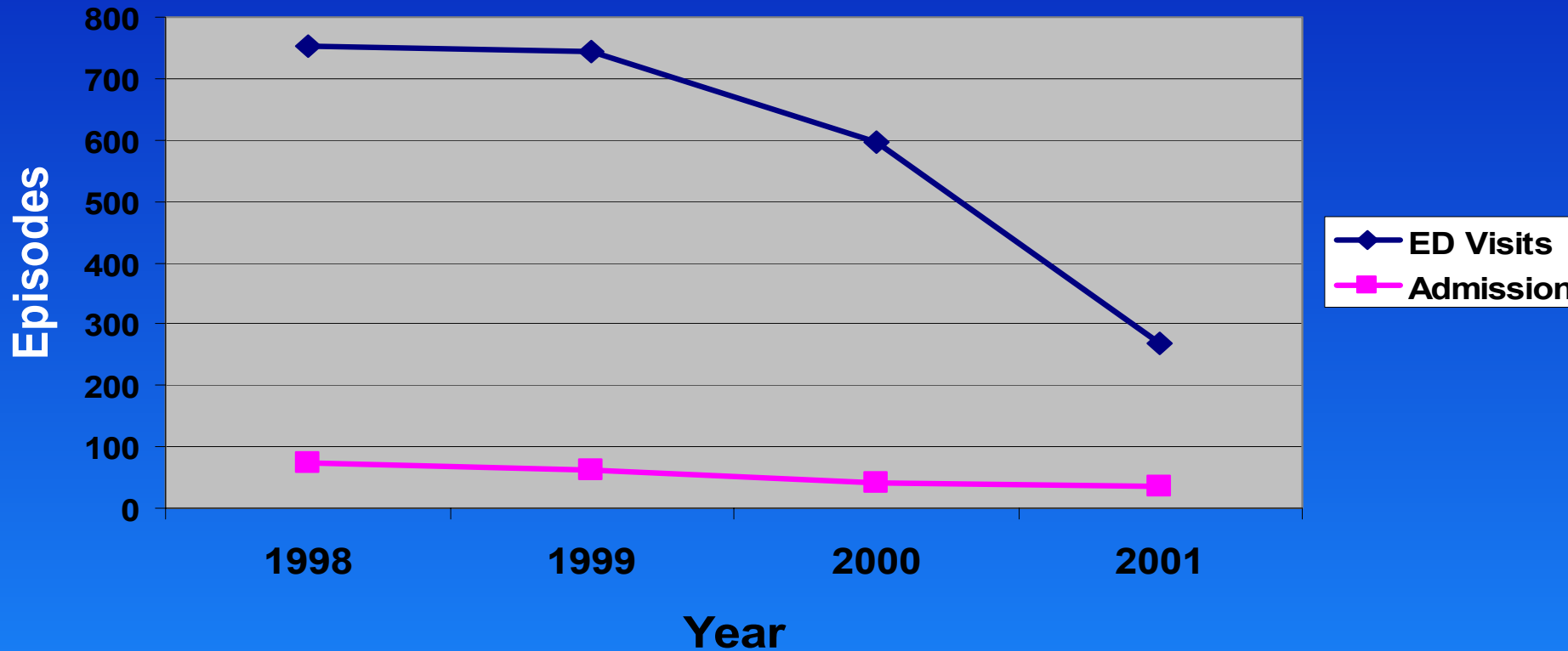
Source: Chronic Illness and Caregiving Survey, Harris 2000

# What We Had Learned by 2004

- All stakeholders want evidence for decision making
- Knowing the right thing to do is **NOT** = doing it!
- Improvement must be based on science
- Patients as participants are far more effective than patients as 'recipients'
- Sutton's Law: improving chronic illness care is essential
- Safety in health care delivery is critical

# Asthma Outcomes – Moore County: Hospitalizations and ED visits

Change in hospitalization and ED visits



# Useful Information and Communication Technologies

- IT applications can be used alone or in combination—the “building block” approach
- IT applications can facilitate:
  - State monitoring for accountability and improvement opportunities (registries)
  - Patient self-management
  - Shared decision making
  - Improved clinical care

# What Has Changed - 1

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- Informatics now understood as essential complement to biomedicine
- Boundaries between “QI” and “research” have disappeared
- Data collection is purposeful, strategic and *oriented to patients’ and clinicians’ needs for information*
- NO research is initiated without a clear plan for sustained implementation

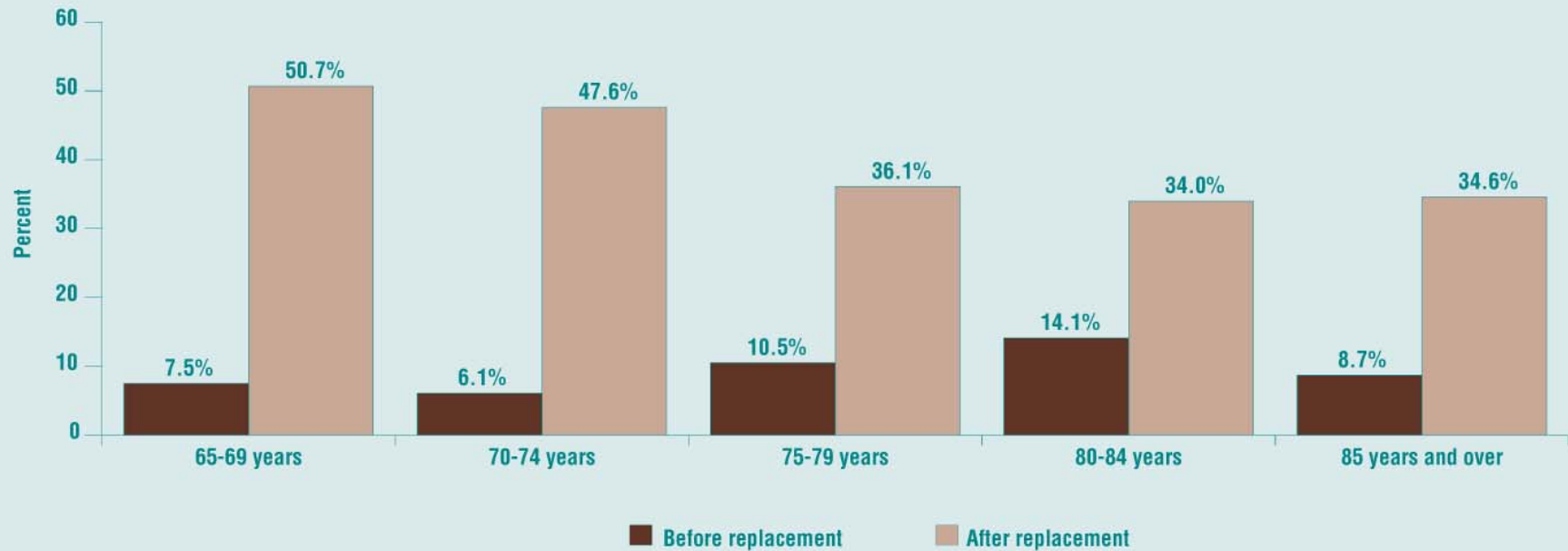
# What Has Changed - 2

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- Learning from clinical encounters is a critical component of knowledge development
- Patients understand and SEE incentives for participation in routine clinical evaluation and improvement
- Throughout the U.S., the question “*What is the evidence?*” is as routine as vital signs



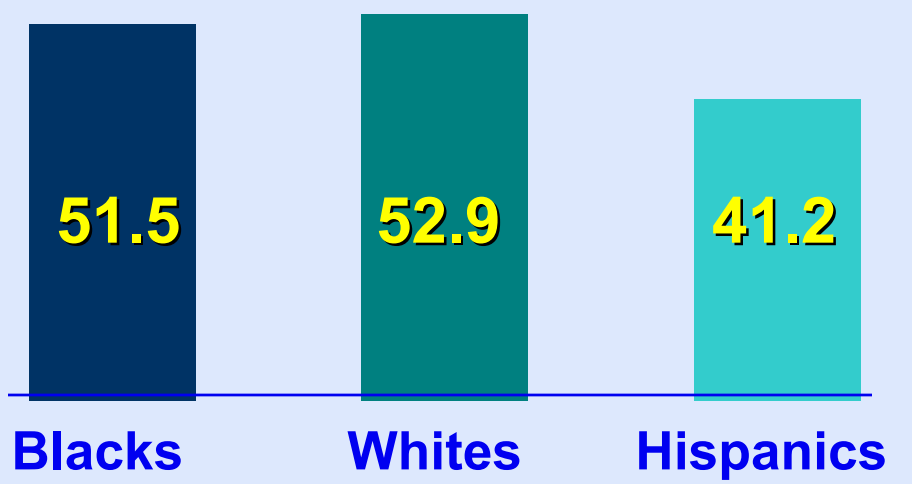
**Figure 4. Elderly patients' ability to walk more than 10 blocks before and after knee replacement surgery, by age**



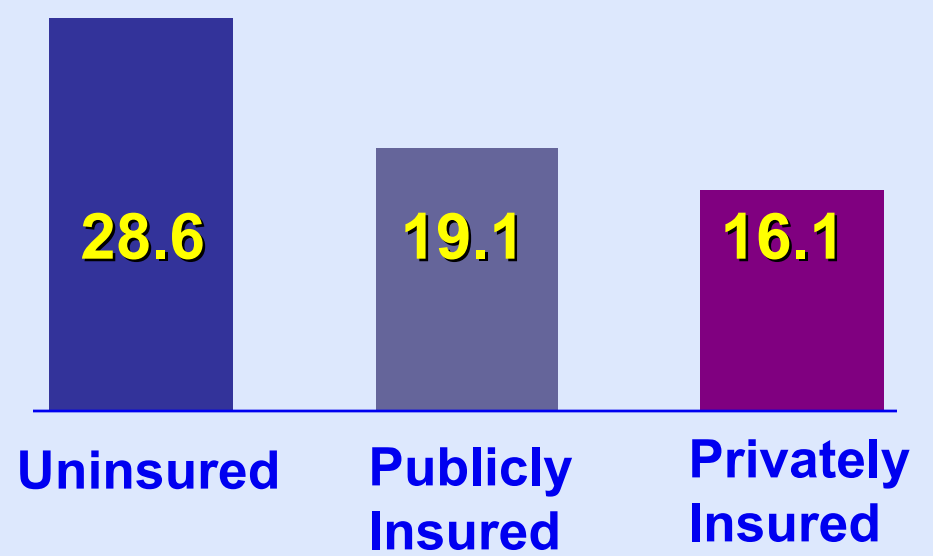
Source: Hawker G, Wright J, Coyte P, et al. Health-related quality of life after knee replacement. J Bone Joint Surg Am 1998;80(2):163-73.

# National Survey Details Americans Experience With Health Care Services Year 2000

Percent of 18 and older Americans who received urgent medical care as soon as they wanted based on ethnicity.



Percent of 18 and older Americans who did NOT receive urgent care as soon as they wanted based on insurance coverage.



# Roles of Patients as Co- Producers of Health

## Participant in Care

- self-management
- involvement in care (e.g., chronic care)
- lifestyle, personal health practices (e.g., diet, exercise, stress)

**Information**  
**Autonomy**  
**Self-Efficacy**

## Decision Maker

- choice of plan, provider, prescriptions
- choice of when to seek care

## Evaluator

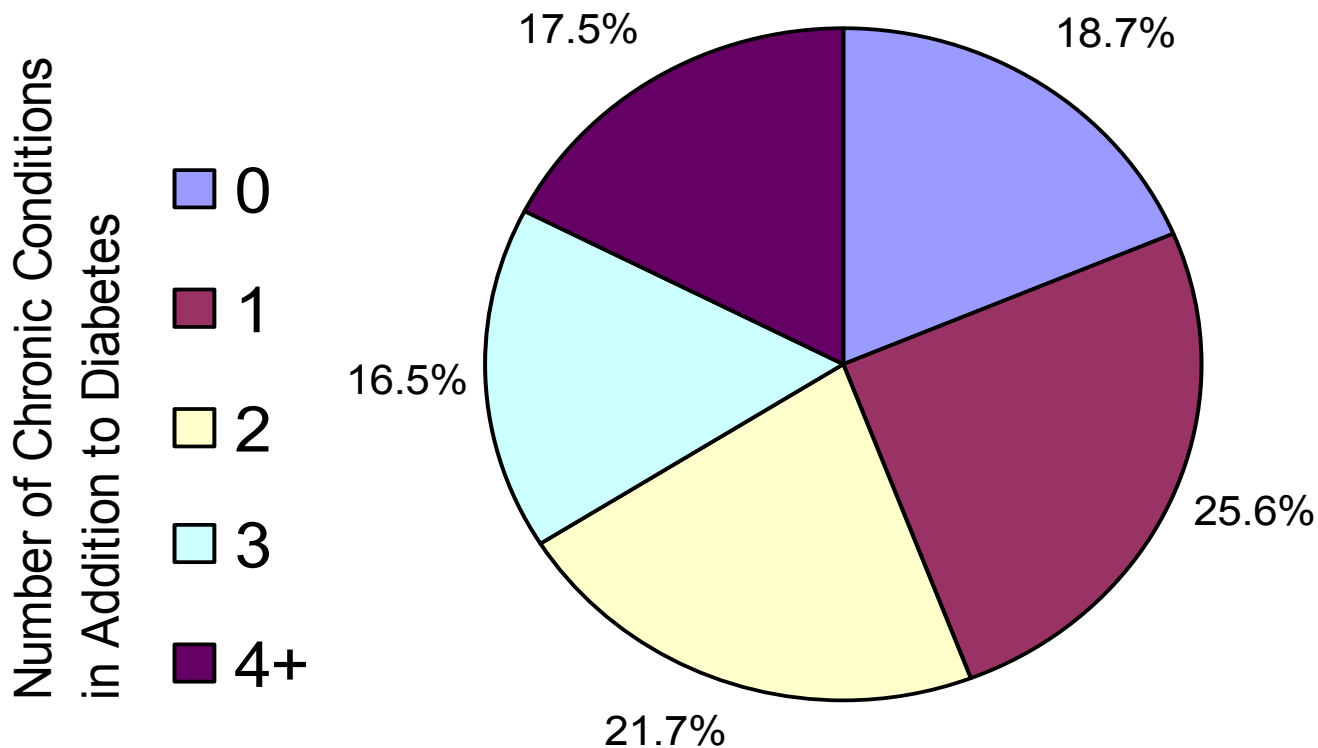
- report on satisfaction and experience

# What Has Changed - 3

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- Policy makers “get it”: the return on investment in biomedical research is significantly enhanced by a robust investment in health care research
- Targeted quality improvement efforts have completely replaced “special” studies on disparities (we now know that disparities in health care = a critical QI opportunity)
- Continuous focus on measurement and evaluation -- for improvement

# Percent of People with Diabetes and Other Chronic Conditions



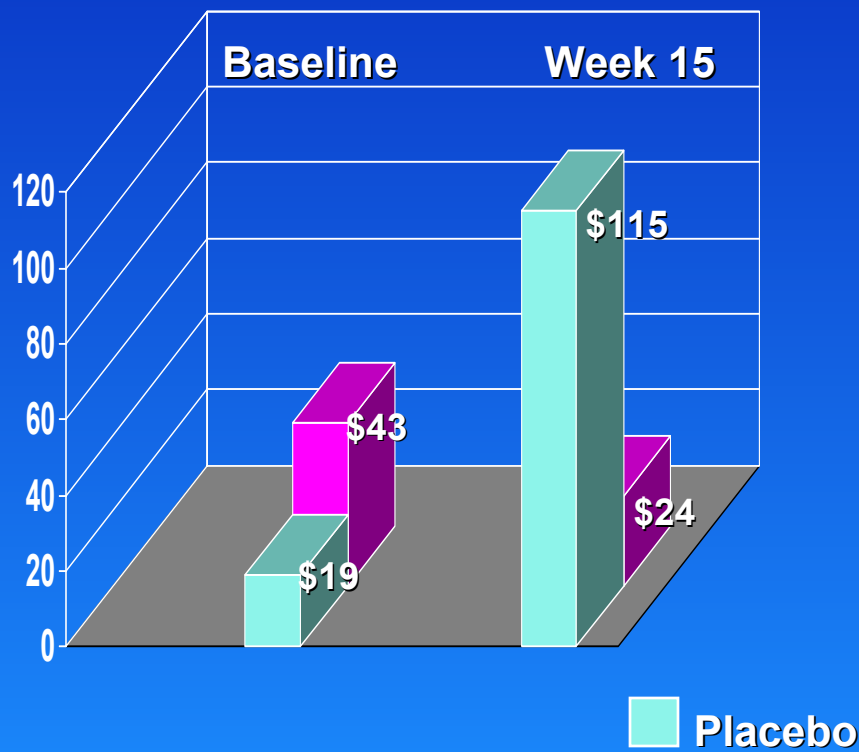
Source: AHRQ's Medical Expenditure Panel Survey, 1996, as cited in Partnerships for Solutions Issue Brief on Diabetes

# Productivity Losses in Persons with Type 2 Diabetes: Placebo Vs. Glipizide Treatment

Advancing  
Research  
in  
Diabetes

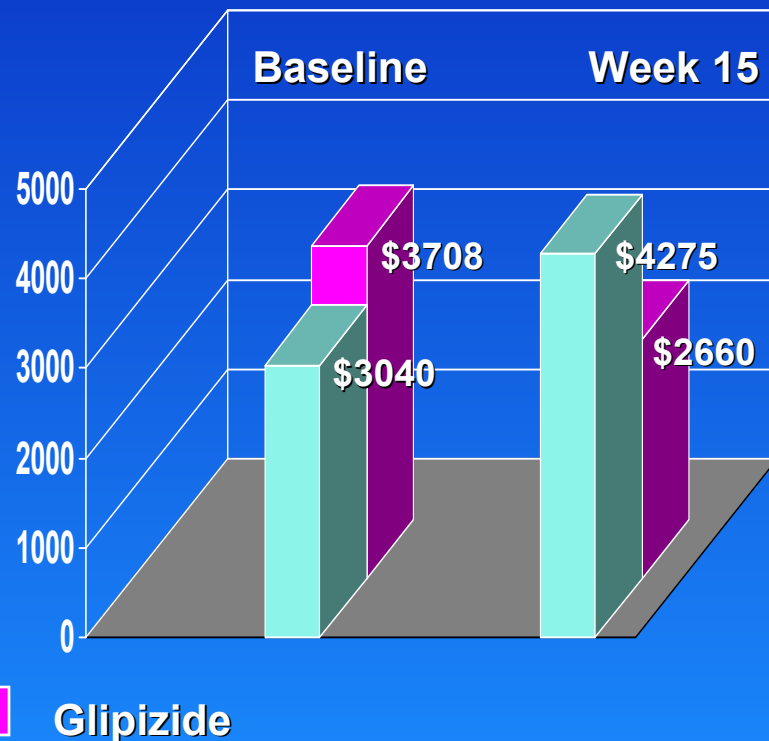
## Losses from Absenteeism

(Dollar Value Per Person Per Month)



## Days of Restricted Activity

(Dollar Value Per 1000 Person-Days)



# Chronic Illness Care 2011

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# New Tools for Chronic Illness Care

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- Relevant data can be easily retrieved in real time
- Shared decision making is the rule
- Patients and clinicians upload information directly from home monitors, phone and e-mail interactions, and smarter office devices
- Enhanced clinical decision support



# PREQUISITES FOR CHANGE

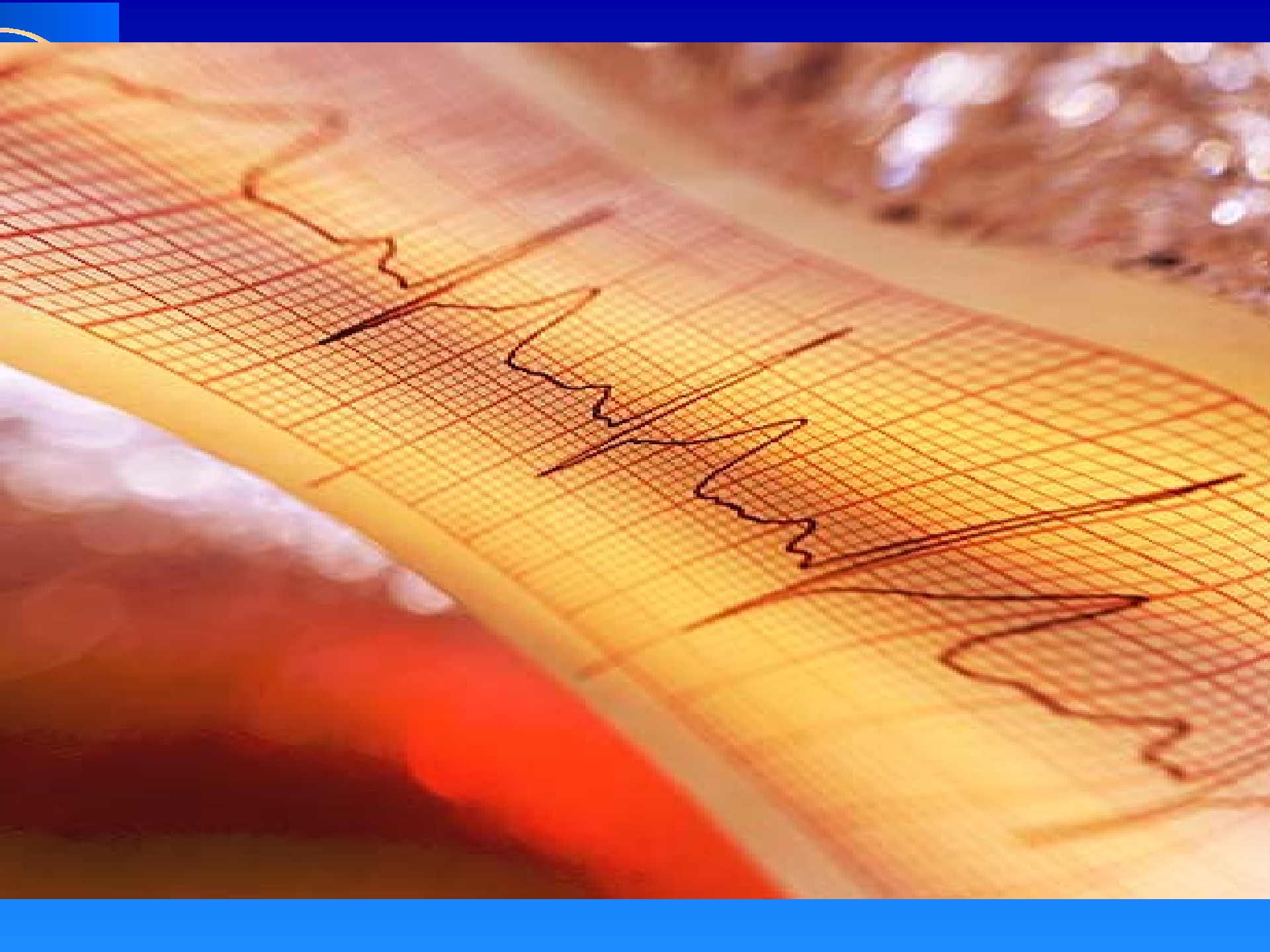
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- Integrating strategy to make existing information accessible with requisite data collection
- Expected differences in patient experiences (e.g., disparities associated with race, ethnicity and SES)
- How to present information in usable formats (different versions of “the answers” will be more effective for different audiences)

# How Research Has Evolved

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- Proposed studies that do not involve all stakeholders are considered ‘amusing’
- Proposed studies that do not include an explicit and compelling plan for incorporation into practice are not funded
- Patients are central to conduct and review of research: “Nothing about me without me”



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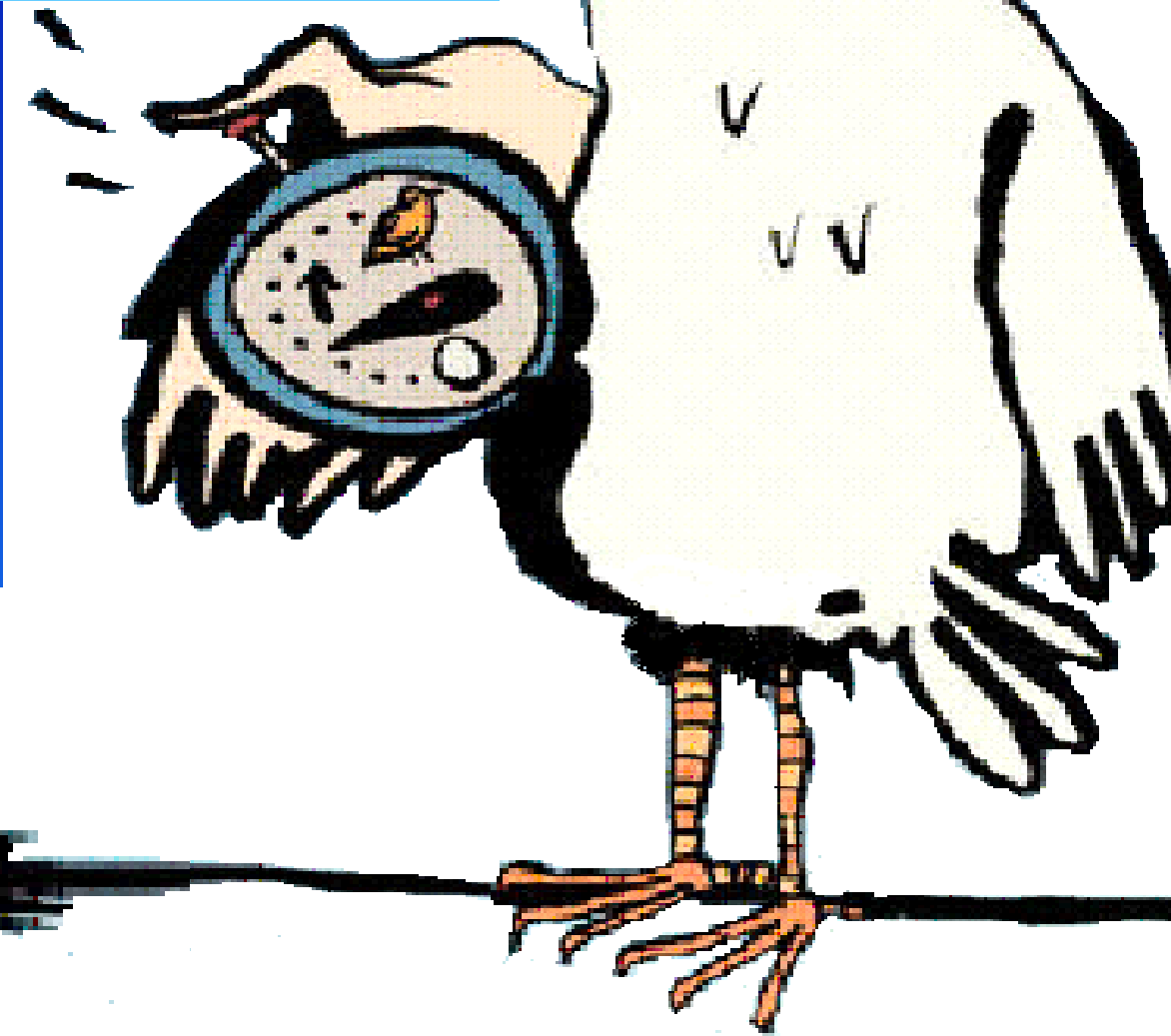
# All We Need Is.....

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- **P**ayment changes: p4p + FFS = ??
- Smart **P**olicies
- **P**eople who get it
- “**P**ull” – demand for change; urgency

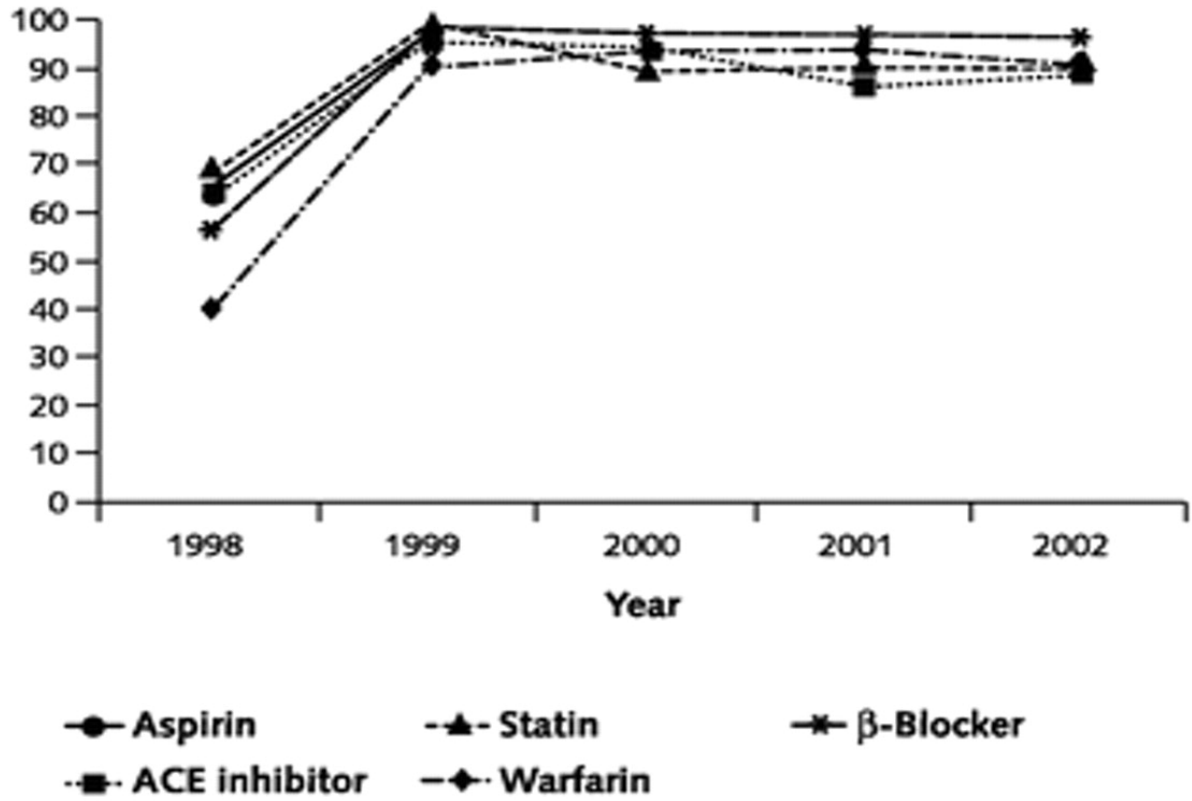
Information  
Technology

System  
Design



# HIT + Systems approach Can Make a Difference

Proportions of patients receiving the appropriate discharge prescriptions



- Intermountain Health Care QI effort on CVD
- Results:
  - 90% prescription rates
  - 27% decrease unadjusted absolute death rates

et al. Ann Intern Med 2004;141:446-453

# Patient Safety: Achieving A New Standard For Care

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“Americans should be able to count on receiving health care that is safe.....This requires, first, a commitment by all stakeholders to a culture of safety, and, second, **improved information systems.**”

Institute of Medicine, 2003



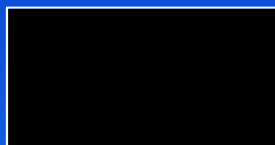
# Role Of IT In Reducing Medical Errors

## Percent who say...

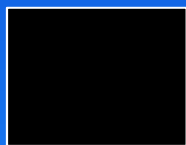
The coordination among the different health professionals that they see is a problem **69%**



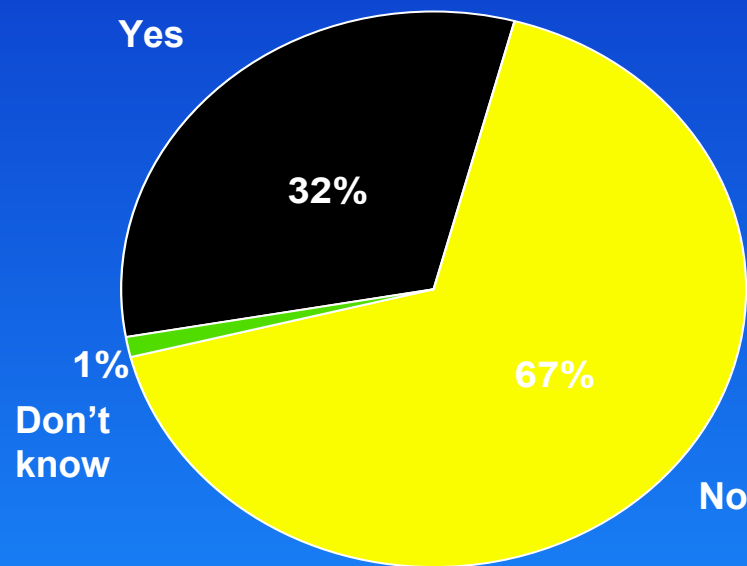
They have seen a health care professional and noticed that they did not have all of their medical information **48%**



They had to wait or come back for their appointment because the provider did not have all their medical information **32%**



Have you or a family member ever created your own set of medical records to ensure that you and all of your health care providers have all of your medical information?



# Future Need and Opportunities

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- Clinical Decision Support – with AMIA and HIMSS
- Supporting loose collaboratives or networks of promising organizations and communities
- Promoting resource support and technical assistance
- Healthcare improvement “extension service”
- Seamless electronic reporting of performance measures and adverse events
- Accelerating both the production and use of evidence

