A Comprehensive Approach to the Measurement of Health Outcomes

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November 25, 2008

K30 Track II Module

Gonda Building Room 1357

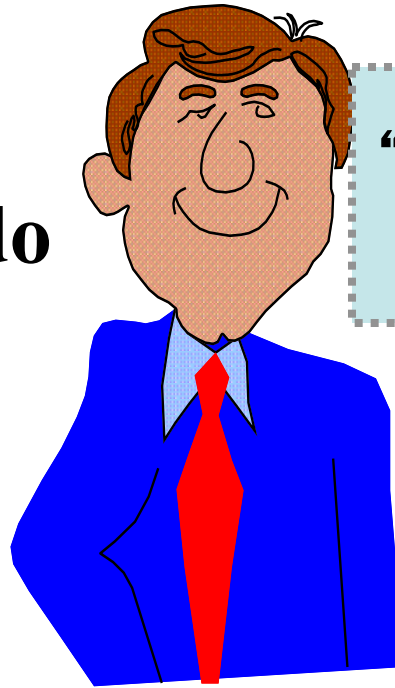# How is the patient doing?

Temperature

Respiration

Pulse

Weight

Blood pressure

Asking her or him about …

What they are able to do

"QOL is determined by its activities"

Aristotle

And how they feel about their life

Health-Related Quality of Life (HRQOL) focus #1:

What you can DO (_functioning_)

- Physical functioning (self-care -> vigorous activities)
- Role
- Social

Does your health now limit you in walking more than a mile?
  _No_
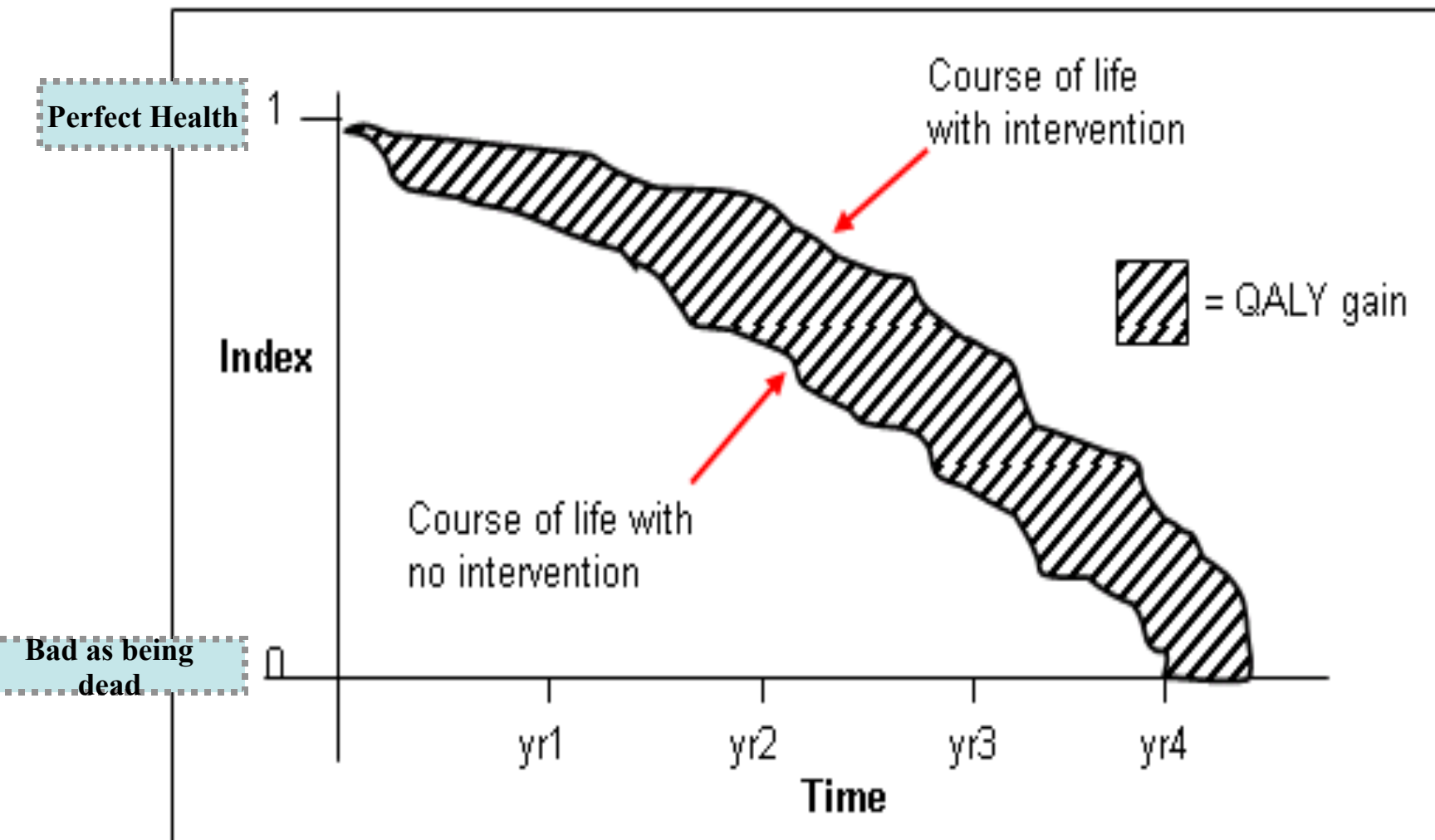 _Yes, limited a little_
  Yes, limited a lot

Health-Related Quality of Life (HRQOL) focus #2:

How you FEEL (*well-being*)
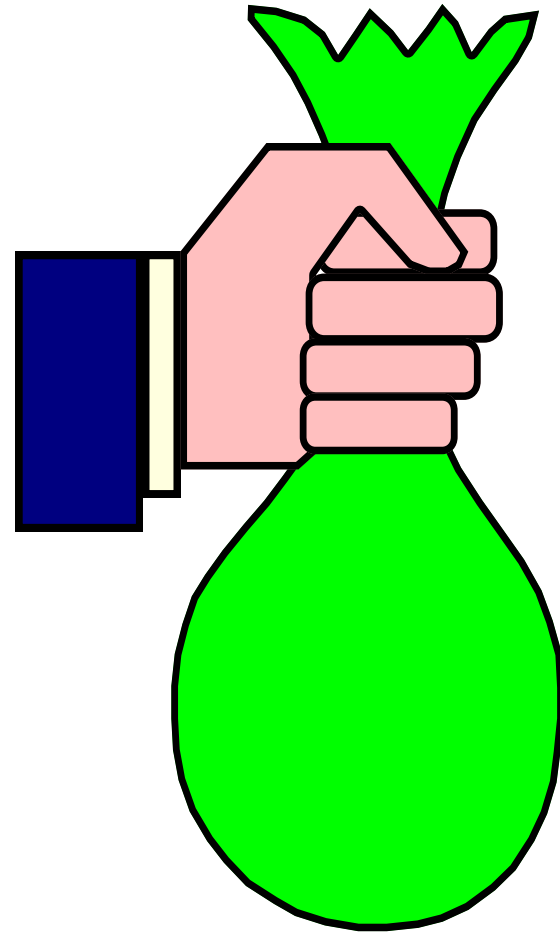
- Emotional well-being
- Pain
- Energy

How much of the time during the past 4 weeks have you been happy?

None of the time to *All of the time*

Perfect Health

1

Course of life
with intervention

Index

= QALY gain

Course of life with
no intervention

Bad as being
dead

0

yr1   yr2   yr3   yr4

Time

HRQOL is Not

- Quality of environment
- Type of housing
- Level of income
- Social Support

Uses of HRQOL Measures

- **Monitoring population (and subgroups)**
- Observational studies
- Clinical trials
- Clinical practice

Measures
- Findings
- Prevalence Data
- State and Community Health Profiles
- Validity Studies
- Resources

Some documents on this page are available as PDF files. Learn about viewing PDF files with **Adobe Acrobat**.

How does CDC measure population health-related quality of life?

CDC uses a set of questions called the "Healthy Days Measures." These questions include the following:

1. Would you say that in general your health is

   a. **Excellent**
   b. **Very good**
   c. **Good**
   d. **Fair or**
   e. **Poor**

2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

4. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

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Health-Related Quality of Life Measures

On this Page

- How does CDC measure population health-related quality of life?
- Health-Related Quality of Life Measures
- How is the summary index of unhealthy days calculated?
- Origins and Use of CDC's HRQOL Measures and Data
- SAS, SPSS & SUDAAN syntax
- Measurement Properties
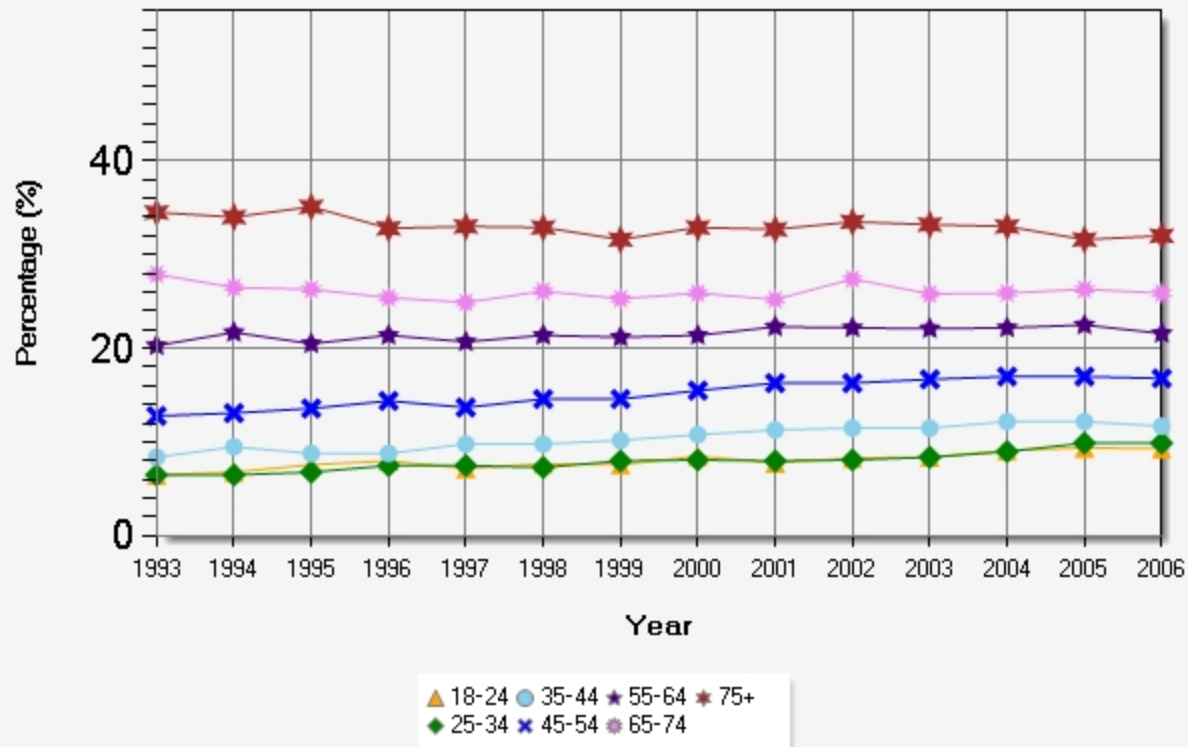
Behavioral Risk Factor Surveillance System (BRFSS)

- Nationwide survey of U.S. adults
- Telephone interview (random digit dialing)
- Percent *poor* or *fair* health about **16%**
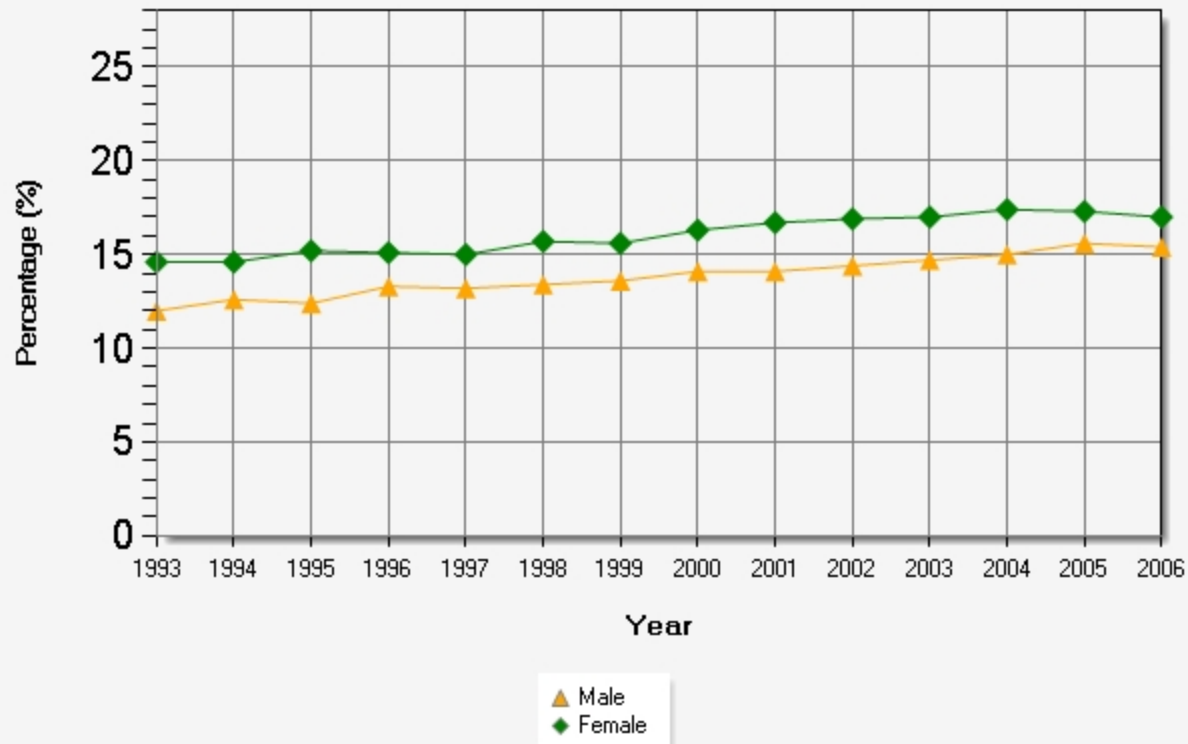
Percentage with fair or poor self-rated health

Nationwide trend: Age Group

Greater % of fair or poor health reported by older adults (33% for 75+ vs. 9% for 18-24)

Percentage with fair or poor self-rated health

Nationwide trend: Gender

Greater % of fair or poor health reported by females (17%) vs. males (15%)

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Burden of HIV Compared to other Conditions and General Population
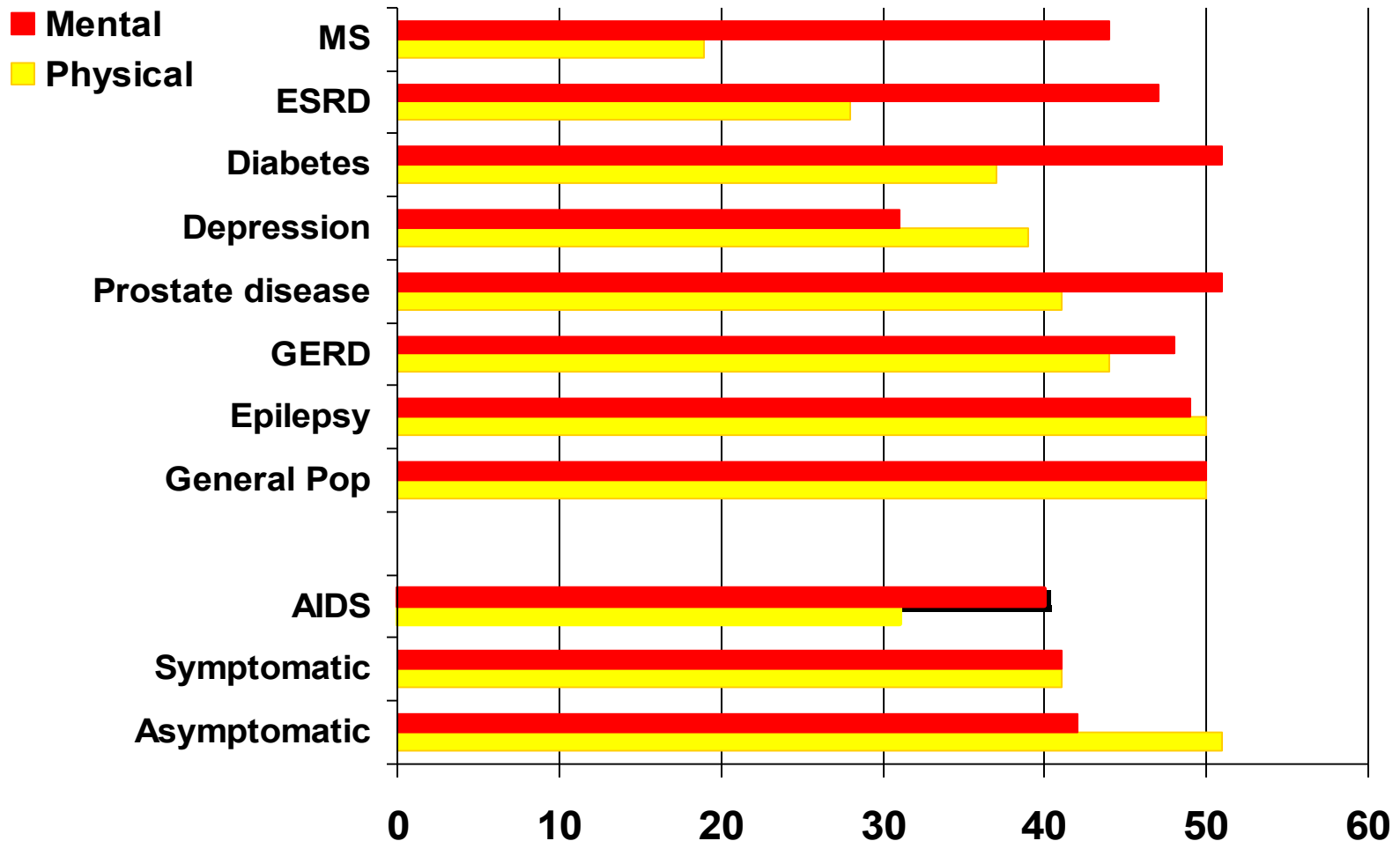
Legend: **Mental** (red), **Physical** (yellow)

Categories (top to bottom): MS, ESRD, Diabetes, Depression, Prostate disease, GERD, Epilepsy, General Pop, AIDS, Symptomatic, Asymptomatic

X-axis: 0, 10, 20, 30, 40, 50, 60

Hays et al. (2000), American Journal of Medicine

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Uses of HRQOL Measures

- Monitoring population (and subgroups)
- **Observational studies**
- Clinical trials
- Clinical practice

Observational Studies

Process Of Care ⋯⋯→ **Outcomes**

Process Of Care → Outcomes

Process Of Care: Patient-Reported, Expert Consensus

Outcomes: Clinical, Patient-Reported
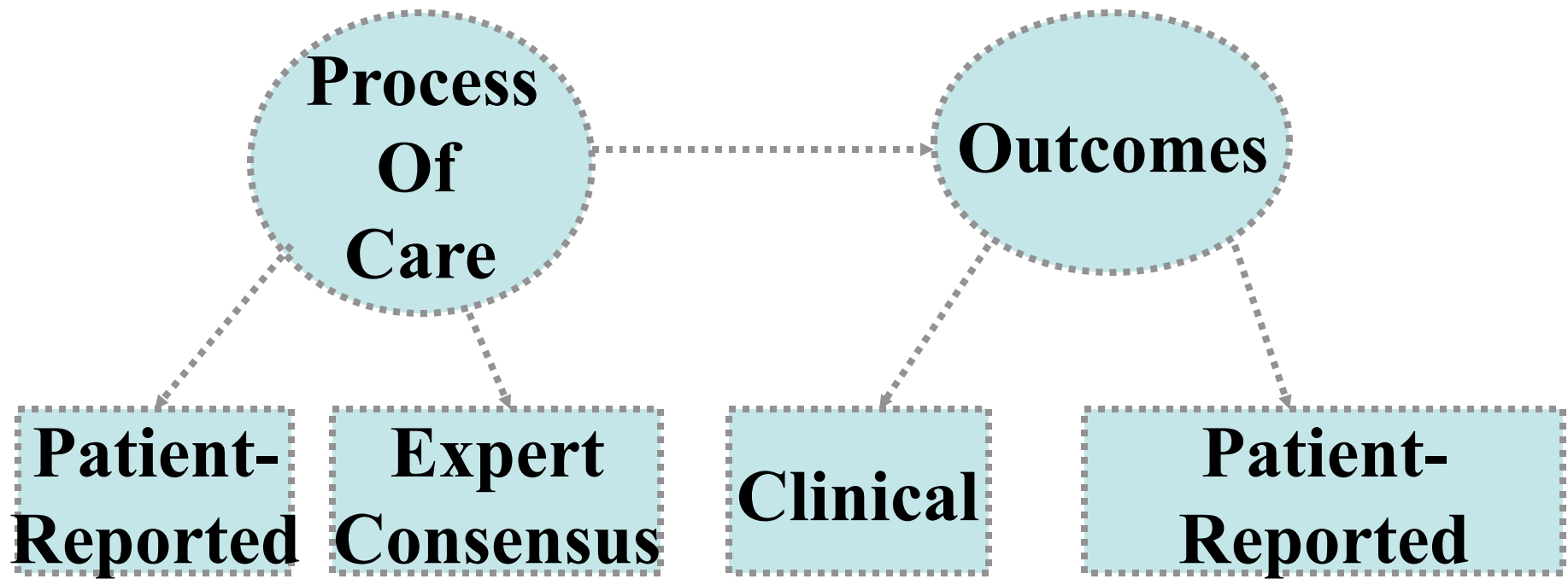
Process of Care

- **Expert Consensus**
  - Quality of Care "If Then" Indicators
    - % of patients with diabetes with one or more HbA1c tests annually

- **Patient reports about communication**
  - In the last 12 months, how often did your doctor explain things in a way that was easy to understand?

Outcomes of Care

- Clinical
  - % of patients with diabetes with most recent HbA1c level >9.0% (poor control)

- Patient global rating of health
  - Would you say that in general your health is:

    - Excellent
    - Very good
    - Good
    - Fair
    - Poor

Health Services Research
2008 Eisenberg Award

© Health Research and Educational Trust
DOI: 10.1111/j.1475-6773.2006.00604.x

Does Ambulatory Process of Care Predict Health-Related Quality of Life Outcomes for Patients with Chronic Disease?

Katherine L. Kahn, Diana M. Tisnado, John L. Adams, Honghu Liu, Wen-Pin Chen, Fang Ashlee Hu, Carol M. Mangione, Ronald D. Hays, and Cheryl L. Damberg

Objective. The validity of quality of care measurement has important implications for practicing clinicians, their patients, and all involved with health care delivery. We used empirical data from managed care patients enrolled in west coast physician organizations to test the hypothesis that observed changes in health-related quality of life across a

Uses of HRQOL Measures

- Monitoring population (and subgroups)
- Observational studies
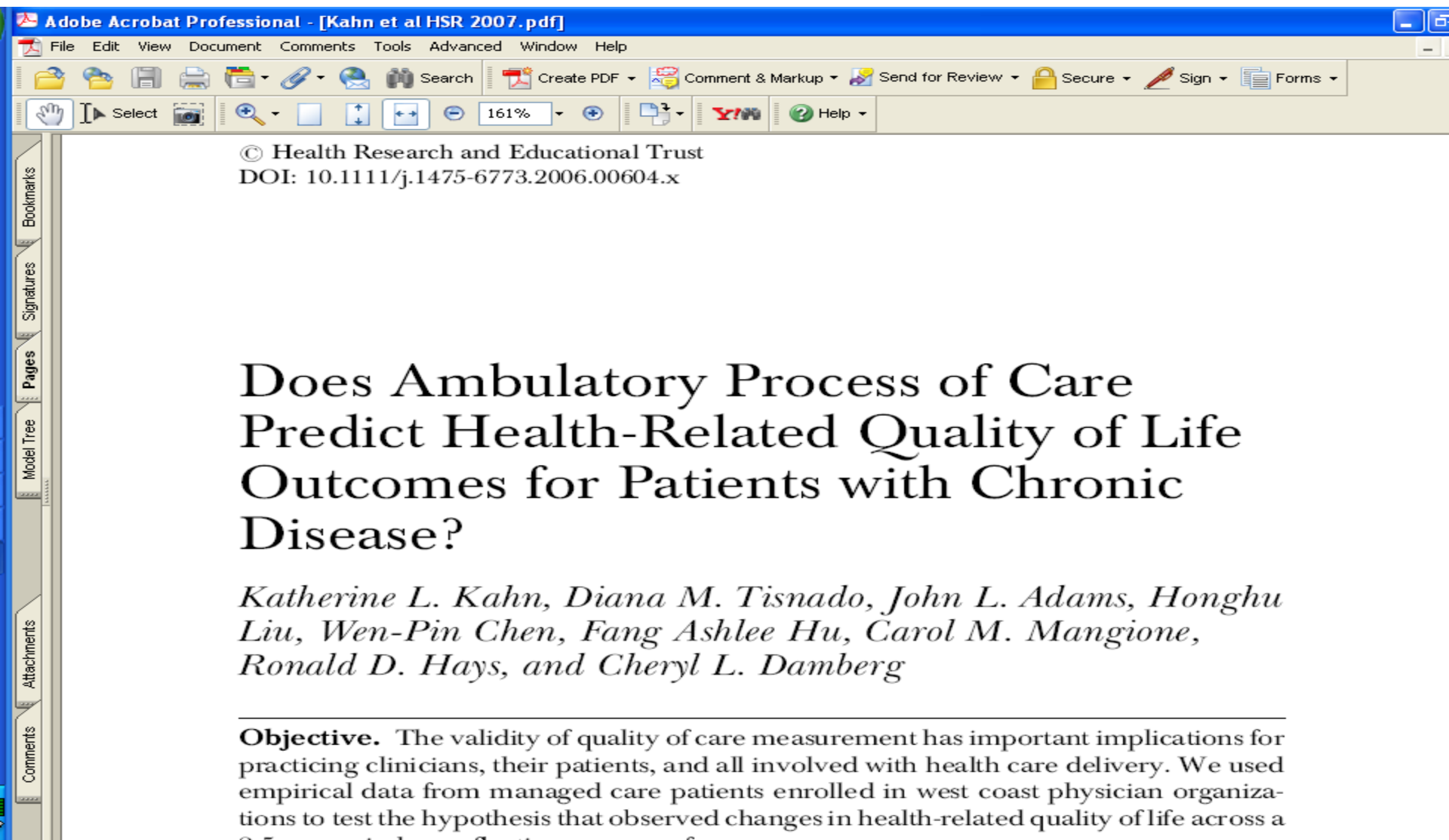- **Clinical trials**
- Clinical practice

First RCT of Treatment for Newly Diagnosed Prostate Cancer (NEJM, 2002)

- Radical prostatectomy vs. watchful waiting
- Trend to reduction in all-cause mortality
- (18% versus 15%; RR 0.83, 0.57 to 1.2, p = 0.31)

Impact of Surgery on Symptoms

- ↓ Urinary obstruction (weak stream)
  - 44% waiting, 28% prostatectomy +
- ↑ Urinary leakage
  - 49% prostatectomy - vs. 21% waiting
- ↑ Sexual dysfunction
  - 80% prostatectomy - vs. 45% waiting

Uses of HRQOL Measures

- Monitoring population (and subgroups)
- Observational studies
- Clinical trials
- **Clinical practice**

HRQOL assessment by providers may

➢ Facilitate patient-physician communication

➢ Improve clinician understanding of patients' problems (particularly those of a psychosocial nature)

Detmar SB, Aaronson NK. Quality of life assessment in daily clinical oncology practice: a feasibility study. *Eur J Cancer*. 1998;34(8):1181-6.

Detmar SB, Muller MJ, Schornagel JH, Wever LD, Aaronson NK. Health-related quality-of-life assessments and patient-physician communication: a randomized controlled trial. *J Am Med Assoc*. 2002;288(23):3027-34.

Velikova G, Brown JM, Smith AB, Selby PJ. Computer-based quality of life questionnaires may contribute to doctor-patient interactions in oncology. *Br J Cancer*. 2002;86(1):51-9.

Velikova G, Booth L, Smith AB, et al. Measuring quality of life in routine oncologypractice improves communication and patient well-being: a randomized controlled trial. *JClin Oncol*. 2004;22(4):714-24.

"What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?"

Example 2008 HRQOL Publications

"The effect of smoking in midlife on health-related quality of life in old age: A 26-year prospective study," Arch Intern Med

"Effects of adalimumab maintenance therapy on health-related quality of life of patients with Crohn's disease: Patient-reported outcomes of the CHARM trial," Am J Gastroenterol

"Health-related quality of life issues after cosmetic breast implant surgery in Finland," Ann Plast Surg

"Can health-related quality of life predict survival in adults with cystic fibrosis," Am J Respir Crit Care Med

"The chronic care model and realtionships to patient health status and health-related quality of life," Am J Prev Med

Thank you.

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