

Measuring Cancer Screening

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Purpose Today

- ▶ **Overview of existing measures and where to find them**
- ▶ **Emerging issues in screening measurement**
- ▶ **Areas for future research**

Need for a Standard Vocabulary

- ▶ Existing measures likely have been psychometrically and cognitively tested
- ▶ Consistent measurement of screening outcomes would allow for synthesis across studies

Examples of Inconsistencies

- ▶ **What is “recent mammogram”?**
 - ▶▶ Year-long intervals?
 - ▶▶ 18 months?

- ▶ **What is “repeated screening”?**
 - ▶▶ Number of Pap tests in past 6 years?
 - ▶▶ How long before that Pap smear was the previous one?

Challenges – 1

- ▶ **Breast Cancer**
 - ▶ Recommendations vary for starting age and frequency
- ▶ **Colorectal Cancer**
 - ▶ Many options, new technology

Challenges – 2

- ▶ **Cervical Cancer**
 - ▶▶ **Recommended frequency**
 - ▶▶ **HPV**

- ▶ **Prostate Cancer**
 - ▶▶ **No clear mortality benefit**
 - ▶▶ **How to measure USPSTF recommendation?**

Existing Measures

- ▶ **National Health Interview Survey - NHIS**
- ▶ **California Health Interview Survey - CHIS**
- ▶ **Health Information National Trends Survey - HINTS**
- ▶ **Behavioral Risk Factor Surveillance System - BRFSS**

NHIS

<http://www.cdc.gov/nchs/nhis.htm>

- ▶ **National annual household interview**
- ▶ **Conducted by National Center for Health Statistics (at CDC)**
- ▶ **Health indicators, health care use and access, health-related behaviors**

CHIS

<http://www.chis.ucla.edu/>

- ▶ **Random digit dial telephone survey**
- ▶ **State-wide and county level data**
- ▶ **Health status, health behaviors, use of and access to health care**
- ▶ **Conducted every two years, in multiple languages, by UCLA**

HINTS

<http://cancercontrol.cancer.gov:0/hints/index.jsp>

- ▶ **Random digit dial telephone survey**
- ▶ **National probability sample of adults**
- ▶ **Health information needs and access, health outcomes and behaviors**
- ▶ **Conducted by National Cancer Institute**

BRFSS

<http://www.cdc.gov/brfss/>

- ▶ **National continuously conducted random digit dial survey**
- ▶ **State level assessments of major behavioral risks**
- ▶ **All US states participate**
- ▶ **Conducted by CDC**

Where to find ...

- ▶ **Adherence to Guidelines**
 - ▶ Have you ever had...?
 - ▶ When did you have your most recent...?
- ▶ All 4 surveys – all 4 cancer areas
- ▶ NHIS – proctoscopy
- ▶ BRFSS – CBE, DRE

Where to find...

▶ Behavioral Assessments

▶ NHIS 2000 Cancer Module

- Breast cancer risk factors
- History, follow-up of abnormal for
 - Mammogram, Pap
 - PSA, Fecal Occult Blood Test
- PSA discussion

▶ HINTS2

- PSA discussion
- Pap repeat, intention to next
- HPV infection history

Where to find...

▶ Attitudes and Beliefs

- ▶▶ Main reason – all but BRFSS
- ▶▶ Main reason NOT – NHIS 2000
- ▶▶ HINTS2
 - Beliefs about HPV
 - Mental Model of colorectal cancer

Limitations of National Surveys

- ▶ Often had little validity testing, particularly in minority populations
- ▶ Vary from each other

Other Sources of Measures - 1

- ▶ **Colorectal Screening – Patients**
 - ▶▶ **All tests**
 - ▶▶ **Core items**
 - **Adherence**
 - **Benefits**

Vernon et al. Measures for ascertaining use of colorectal cancer screening in behavioral, health services and epidemiological research. CEBP 2004;13(6):898-905

Other Sources of Measures – 2

<http://healthservices.cancer.gov/surveys/colorectal/>

- ▶ **Colorectal Screening – Providers**
 - ▶ Recommendation and practice behaviors
 - ▶ Attitudes about, and
 - ▶ Training in screening tests

- ▶ **Mail, telephone, fax or Internet**

Emerging Issues at NCI

Decision Making, 1

- ▶ **Recommendations were simple**
 - ▶ **Have test!**

- ▶ **Choosing a colorectal test**
 - ▶ **Clear benefit**
 - ▶ **Invasiveness, timing, cost**
 - ▶ **Need new measures of process**

Emerging Issues at NCI

Decision Making, 2

- ▶ **Mammograms for women in 40s**
- ▶ **PSA for prostate cancer**
 - ▶ **Mortality benefit not clear**
 - ▶ **USPSTF recommends a discussion**
 - ▶ **Need to measure that guideline**

Emerging Issues at NCI

Providers, 1

▶ Challenges

- ▶▶ Identifying key areas to assess quickly
- ▶▶ Avoiding social desirability

▶ Approaches

- ▶▶ Two versions of survey
- ▶▶ Vignettes

Emerging Issues at NCI

Providers, 2

A healthy 70-year-old woman has had annual Pap tests with negative findings for the past 30 years. You would recommend:

- ▶ *if she has had no new sexual partners within the last 5 years, you would recommend:*
- ▶ *if she has had multiple new sexual partners within the last 5 years, you would recommend:*

If she has severe coronary artery disease with a projected life expectancy of less than 5 years, you would recommend:

Future Research

- ▶ **Agreement on conceptualization must precede measurement**
- ▶ **Emphasize external validity**
- ▶ **Innovate – move away from conventional, time-consuming self-report measures**

Helpful Web Sites

- ▶ <http://www.cdc.gov/nchs/nhis.htm>
- ▶ <http://www.chis.ucla.edu/>
- ▶ <http://cancercontrol.cancer.gov:0/hints/index.jsp>
- ▶ <http://www.cdc.gov/brfss/>
- ▶ <http://healthservices.cancer.gov/surveys/colorectal/>
- ▶ <http://cancercontrol.cancer.gov/acsrb/>

Contact Us

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