

***Patient-Reported Outcomes
Assessment In Cancer Trials:
Evaluating and Enhancing
the Payoff to Decision Making***

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Outcomes Research at NCI

- 1980s and early 1990s
 - Incremental gains in survival from some clinical trials, efforts by the QOL research and advocacy community stimulated a call for evaluation of outcomes beyond tumor response
 - NCI sponsored the Prostate Cancer Outcomes Study
 - First NCI study to examine HRQOL in a large population sample
 - FDA consideration about incorporation of HRQOL within cancer trials
- Mid to Late 1990s
 - DCTD considered establishing a special unit
 - Requested that DCCPS establish within the Applied Research Program
- Late 1990s and early 2000's
 - Established the Outcomes Research Branch
 - Ongoing NCI/FDA discussions within the FDA HRQOL Harmonization Committee

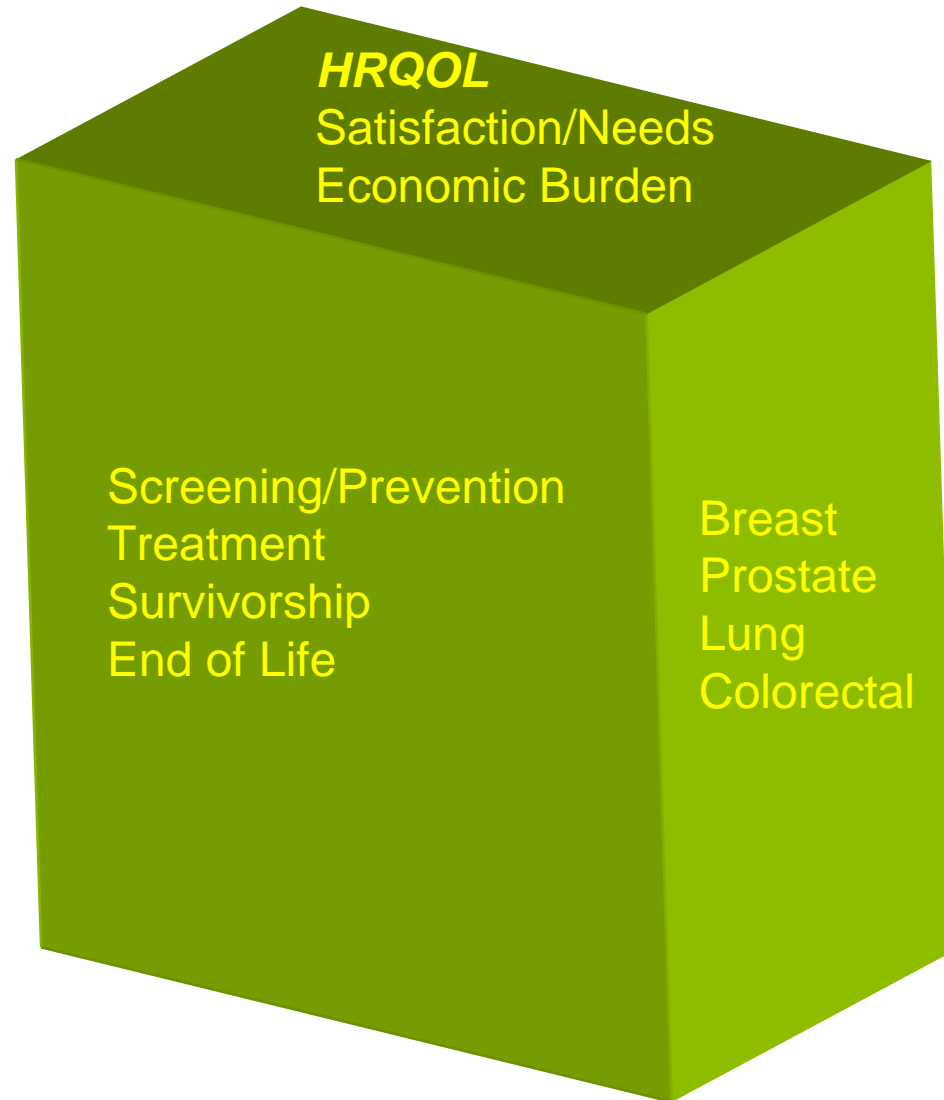
Outcomes Research Branch

- Created in 1999 to accelerate application of new methods and technologies for measuring cancer outcomes.
- Focus on enhancing the application of “non-traditional” endpoints
 - Patient-reported outcomes a high priority
 - Across a range of applications: surveillance, research, decision making.
- Application of PRO in cancer trials
 - An initial and ongoing need

Cancer Outcomes Measurement Working Group (COMWG)

- In 2001, convened 35 experts from academia, government, and industry.
- Assess the state of the science of outcomes measurement and identify priorities for future research and practice.
- Focused on patient-reported outcomes (PROs): Health-related quality of life, satisfaction with care/ patient needs, economic burden
- *Outcomes Assessment in Cancer: Measures, Methods, and Applications* (eds. Lipscomb J, Gotay CC, Snyder C, Cambridge University Press, 2005)

COMWG Research Focus



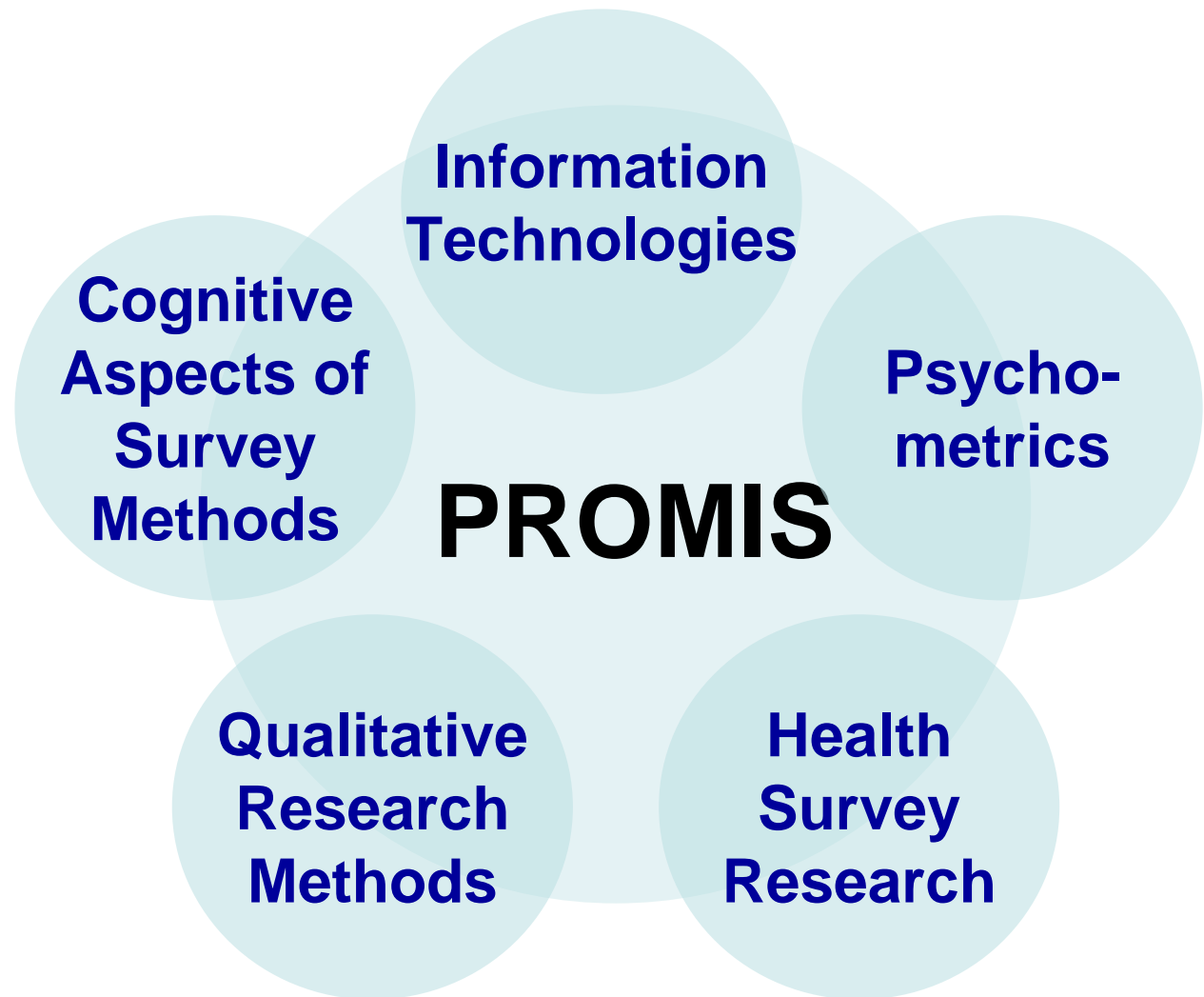
Key Research Topics for PRO Measures in Cancer Trials

- Understanding and enhancing the value of PRO measures to inform decision making
- Improving the planning and execution of PRO data collection in cancer trials – missing data a common problem
- Selecting PRO measures that address the needs of specific trials and promote comparison across trials
- Exploiting modern psychometric methods (e.g., item response theory (IRT)) and applications (item banking) to improve validity, reliability, and efficiency in PRO measurement and data collection

Patient-Reported Outcomes Measurement Information System

- **Goal:** Improve assessment of self-reported symptoms and other health-related quality of life domains across many chronic diseases
 - Core domains include pain, fatigue, emotional distress, physical function, social role participation, and overall general health.
- **NIH Roadmap Initiative:** *Re-engineering the Clinical Research Enterprise*
- **Structure:** 5-Year cooperative agreement (began Aug. 2004) between NIH and extramural investigators
 - Statistical coordinating center
 - 6 primary research and data collection sites

Development of the PROMIS integrates the fields of...



PROMIS: Developing Instruments for use in Clinical Trials

- Publicly available, adaptable and sustainable Internet-based system that will provide:
 - Short Form Instruments
 - Individually “tailored” questionnaires (i.e., Computerized-Adaptive Testing)
- Advantages:
 - Reduce response burden
 - Increase scale reliability to detect group differences
 - Compare or combine results from multiple studies
 - Standardized measures within trials will enhance ability to evaluate the effectiveness across clinical trials.

Objective of PROMIS NCI Grant Supplements

Leverage the existing PROMIS infrastructure and funding to ensure that PROMIS generates high-quality measures of patient-reported outcomes relevant to and validated for patients with cancer across the continuum of care.

- Duke Clinical Research Institute
 - PI: Kevin Weinfurt, Ph.D.
- Evanston Northwestern Healthcare
 - PI: David Cella, Ph.D.

PROMIS Cancer Supplement Aims

- Increase cancer representation to 2,500 patients with diverse ethnic/racial distributions stratified across the cancer continuum
- Add cancer-relevant domains (illness impact, sexual function, sleep/wake function, and perceived cognitive function)
- Use cancer samples to identify and address challenges related to PROMIS implementation in multi-center oncology clinical trials
- Enhance clinical meaningfulness of PROMIS reporting system for practicing oncologists
- Develop short form instruments for use in NCI-sponsored clinical trials

Clinical Trials Working Group (CTWG)

- In 2005, The CTWG, chaired by Dr. James Doroshow, released its final goals and recommendations to the National Cancer Advisory Board.
- Priority: Establish a funding mechanism and prioritization process to ensure that the most important correlative science and quality of life studies can be initiated in a timely manner in association with clinical trials.
- The PROACT serves as a platform for informing this implementation process.

Issues PROACT Will Address

- The collection of HRQOL data in any research setting requires a commitment of resources.
 - Need to define standards and quality in this field to ensure that increased data collection efforts are cost efficient and favorable relative to benefits
 - Goal is improved decision making
- Benefits and challenges of HRQOL data collection may vary by type of clinical trial
 - Most extensive application of HRQOL measurement has been in cancer treatment trials
 - Accelerating application of HRQOL in symptom management trials

Issues PROACT Will Address

- Recurring challenges and needs:
 - Minimize the resource and administrative costs of HRQOL data collection.
 - Maximize the information value and relevance of the data collected
 - Increase recruitment of diverse racial and ethnic groups in trials
 - Perspectives on HRQOL are diverse
 - How do clinical advances in cancer treatment, prevention, and screening impact the nature and importance of HRQOL assessment in trials?
 - Promote ongoing quality improvement of HRQOL data
 - Reducing missing data is a recurrent challenge
 - Evolving population demographics dictates efforts to improve cultural relevance of surveys

These challenges framed this conference and today's discussions will help to frame the future -- Help NCI anticipate the future