Healthcare Delivery Research: What’s Coming Down the Pike

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1. Care Delivery Research at NCI
2. Current Focus
3. Emerging Area: Financial Toxicity
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HEALTHCARE DELIVERY RESEARCH PROGRAM
Advancing innovative research to improve the delivery of cancer-related care

HEALTHCARE ASSESSMENT
Assess utilization, access, diffusion, and population-based outcomes

HEALTH SYSTEMS & INTERVENTIONS
Observe and intervene on behavior and context

OUTCOMES
Evaluate and improve patient experiences and health outcomes

Geiger AM et al. Evid-Based Oncol. 2016
Outcomes Research Branch

- **Science of outcomes measurement**
  - Health Measures: A Patient-Centered Assessment Resource

- **Patient symptoms and health-related quality of life in cancer clinical trials and observational research**
  - Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE)

- **Quality of cancer care, particularly patient experiences**
  - SEER-Medicare Health Outcomes Survey Linkage (SEER-MHOS)
  - SEER-Consumer Assessment of Healthcare Providers and Systems (SEER-CAHPS)
Health Systems & Interventions Research Branch

- Clinician and multilevel system factors
  - Healthcare Teams Collaboration with ASCO

- Interventions to improve care delivery
  - Cancer Research Network
  - Population-Based Research Optimizing Screening through Personalized Regimens (PROSPR)

- Delivery of cancer-related health services by community-based health care providers and health care delivery organizations
  - HPV Vaccination Uptake in Cancer Centers
Healthcare Assessment Research Branch

- **Health System – Providers**
  - National Physician Survey of Precision Medicine in Cancer Treatment

- **Health System – Delivery**
  - Patterns of Care
  - Surveillance Epidemiology and End Results-Medicare Linked Database (SEER-Medicare)

- **Financial Burden**
  - Medical Expenditure Panel Survey (MEPS) Experiences with Cancer Supplement

- **Population**
  - National Health Interview Survey (NHIS) Cancer Control Data
Transform Practice

Evidence-based practice change: clinically important and sustained modification of the structures and processes of cancer care delivery to improve clinical outcomes, enhance patient experiences, and optimize value

Erin E. Kent et al. JCO 2015;33:2705-2711
Transform Practice

Attributes of CCDR

- Saliency to patients and clinicians
- Clinician collaboration in design and conduct of studies
- Use of standardized measures of health care quality
- Examination of causal pathways and active ingredients of practice change
- Incorporation of diverse settings and samples

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Funding Opportunity Announcements - Disparities

- Addressing Health Disparities through Effective Interventions among Immigrant Populations (R01, R21)

- Behavioral and Social Science Research on Understanding and Reducing Health Disparities (R01, R21)

- Health of Sexual and Gender Minority (SGM) Populations

- Interventions for Health Promotion and Disease Prevention in Native American Populations (R01)

- Surgical Disparities Research (R01, R21)

http://cancercontrol.cancer.gov/funding_apply.html
Dissemination and Implementation Research in Health (R01, R21, R03)

Definitions

- **Dissemination research** → targeted distribution of information and intervention materials

- **Implementation research** → use of strategies to adopt and integrate evidence-based health interventions into clinical / community settings

Supports

- Innovative approaches to identifying, understanding, developing strategies to improve adoption, adaptation, integration, scale-up, and sustainability of EBPs

Focus

- Need to understand how to de-implement ineffective practices

http://cancercontrol.cancer.gov/funding_apply.html
Encourages

- Research on how delivery system enhances or inhibits effectiveness of a provider's recommendation

Requirements

- Primary data collection in clinical setting
- Geographic areas where HPV vaccination low
- Girls and boys ages 11 to 12 years
- Contextual measures

Requires

- Expertise in cancer prevention, adult and childhood behavior, immunization promotion, and healthcare delivery

http://cancercontrol.cancer.gov/funding_apply.html
Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults (R01, R21)

Promotes

- Research designed to reduce overscreening among average risk adults

Goals

- Understand factors that drive overuse
- Develop and test multilevel interventions to reduce overuse

Encourages

- Include screening rates as primary outcome
- Address at least two contextual levels (individual, healthcare team, delivery system, or community)
- Be grounded in conceptual framework

Multilevel Interventions in Cancer Care Delivery: Follow-up to Abnormal Screening Tests (U01)

Promotes

- Research to improve follow-up to abnormal screening tests for breast, cervical, colorectal and lung cancers at *one or more* level (patient, provider, healthcare team, organization, community)

Requirement

- Intervene at *one or more* level
- Measure outcomes at *three or more* levels
- Account for interactions that occur *between* levels

Encourages

- Increase in the proportion of individuals receiving abnormal screening test results who complete follow-up evaluations.

https://grants.nih.gov/grants/guide/pa-files/PAR-17-146.html
Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery (R01, R21)

Purpose

- Assess and describe current state of utilization, delivery, & adherence
- Identify structural, systemic, and psychosocial barriers to adherence
- Develop models and strategies to improve safe and effective delivery of OAA to optimize clinical outcomes

Required focus on at least one

- Cancer type
- Class of drugs
- Group subject to disparities

Observational studies must focus on modifiable risk factors to inform future intervention research

Intervening with Cancer Caregivers to Improve Patient & Caregiver Health Outcomes & Optimize Healthcare Utilization (R01, R21)

- Funds interventions that support the success of informal cancer caregivers, as measured by the following outcomes:

1. **Improved patient health:**
   - Physical and psychosocial outcomes, QOL

2. **Improved caregiver well-being:**
   - Lower burden, higher capacity, and QOL

3. **Optimized healthcare utilization:**
   - Improved oral medication adherence; reduced ER visits, hospitalization and hospital readmissions; lower rates of infection; timely med refills; better adherence; use of supportive/palliative care service; primary care visits

- Studies must target adult cancer patients/survivors
- Special consideration for studies that target medically underserved and under-represented patient-caregiver populations

21st Century Cures Act / Beau Biden Cancer Moonshot: Minimize cancer treatment’s debilitating side effects

- Accelerate adoption of technology-aided systems that:
  - Collect and monitor patient-reported symptoms
  - Provide actionable decision support approaches utilizing evidence-based guidelines to treat symptoms throughout the cancer continuum.
- Gathered input from research and advocacy communities
- Pursuing multiple strategies
  - PA, RFA, SBIR

https://www.cancer.gov/research/key-initiatives/moonshot-cancer-initiative/blue-ribbon-panel
Moonshot Activities: High Risk Cancers Implementation

- **Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS)**
  - **Goal:** Generate effective implementation strategies to improve CRC screening and follow-up rates in populations where screening rates are substantially below the 80% target

- **Lynch Syndrome**
  - **Goal:** Improve current state of early detection, genetic testing, genetic counseling and knowledge landscape of the mechanisms and biomarkers associated with cancer development

- **Tobacco Cessation**
  - **Goal:** Reduce tobacco use among cancer patients and survivors by incorporating evidence-based comprehensive cessation strategies into oncology care settings
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Financial Toxicity is Common

- **Cancer survivors report**
  - Income loss ($380 to $8,236 annually)
  - Financial distress (47% to 49%)
  - Debt due to treatment (12% to 62%)

- **Ramsey et al. work on bankruptcy found**
  - Cancer patients almost 3 times as likely to declare than controls
  - Younger cancer patients 2 to 5 times more likely to declare than older patients

Financial Toxicity Harms Patients

- Cancer survivors experiencing financial distress report (vs. not distressed)
  - Diminished physical and emotional health
  - 3 to 5 times greater symptom burden
  - Treatment non-adherence due to cost (4% to 45%)

- Ramsey et al. work on bankruptcy found
  - Patients who declared were 1.5 to 2 times more likely to die within five years of diagnosis
  - Highest risk in breast, colorectal, lung & prostate cancer patients

Kate HP et al, Cancer, 2016.
Ramsey SD et al, J Clin Oncol 2015.
Financial Burden Components and Outcomes

Altice CK et al. J Natl Cancer Inst. 2017
NCI Listens

What research areas should NCI be thinking about?