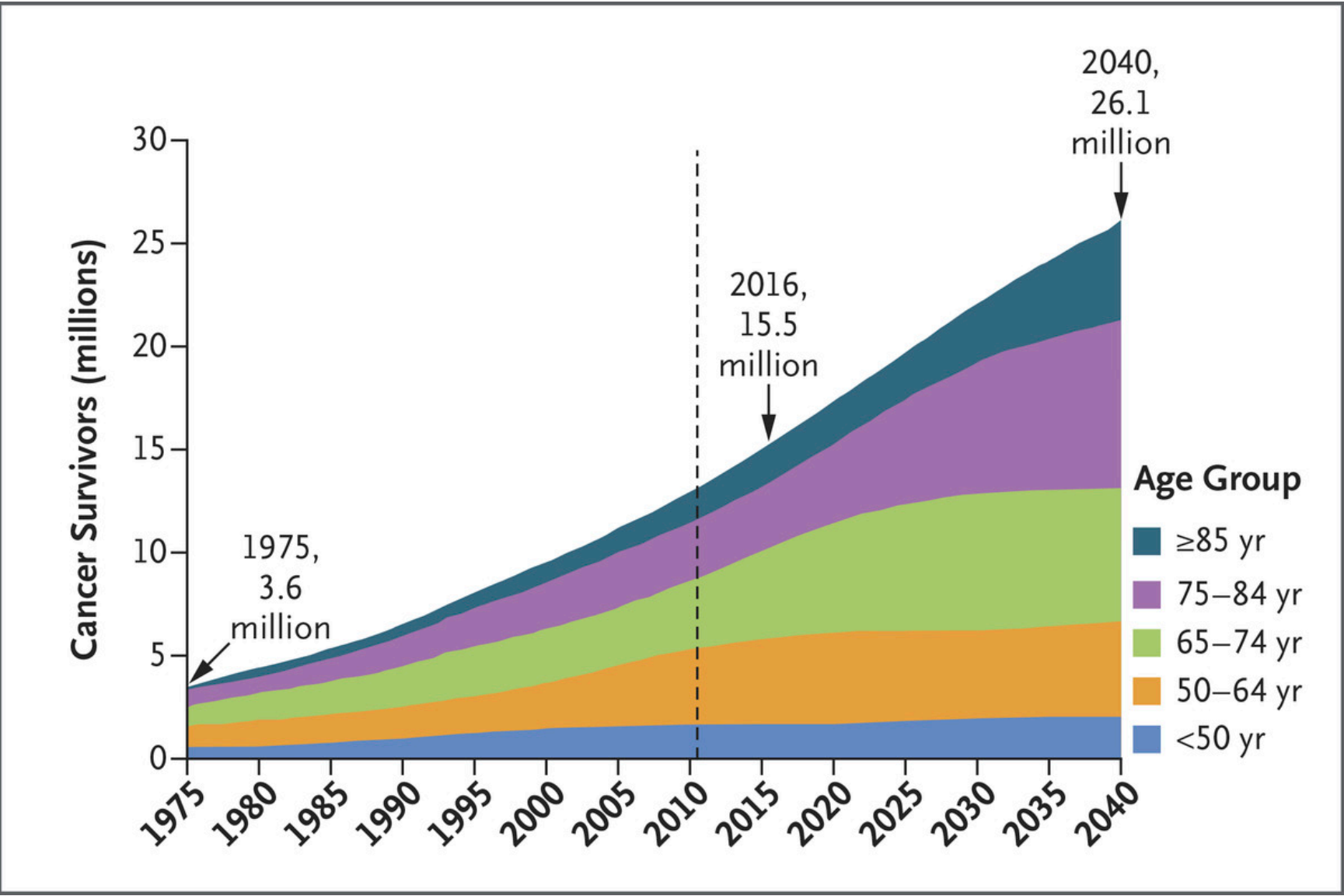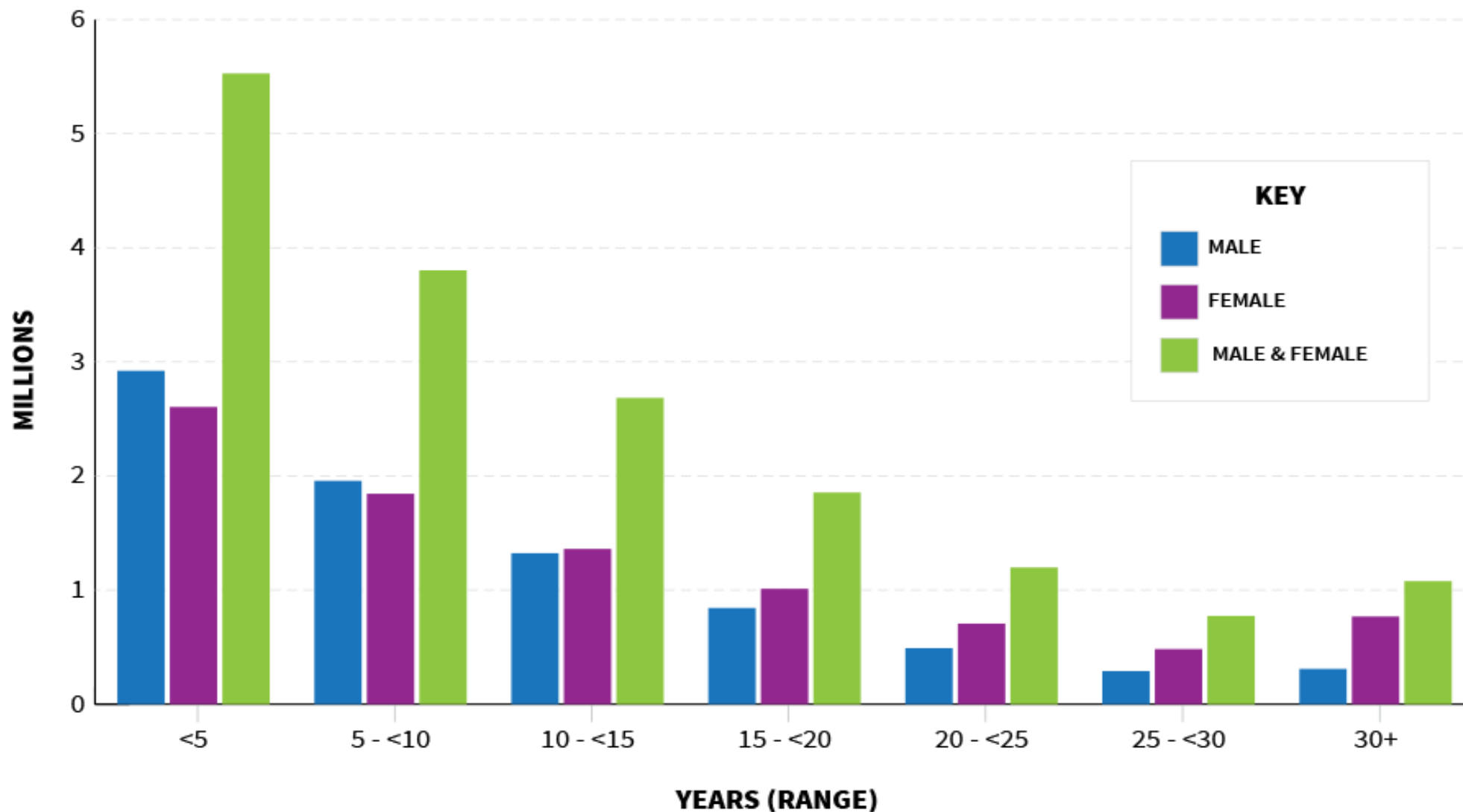# Cancer Survivorship and Supportive Care Economics Research: Current Challenges and Next Steps

Numbers of Cancer Survivors is Rapidly Growing

Source: Shapiro, 2018

Estimated Number of Cancer Survivors in the U.S., by Years Since Diagnosis

KEY
- MALE
- FEMALE
- MALE & FEMALE

MILLIONS

YEARS (RANGE)

REFERENCE: American Cancer Society. *Cancer Treatment & Survivorship Facts & Figures 2016-2017*. Atlanta: American Cancer Society; 2016.
Miller, K. D., Siegel, R. L., Lin, C. C., Mariotto, A. B., Kramer, J. L., Rowland, J. H., Stein, K. D., Alteri, R. and Jemal, A. (2016), Cancer treatment and survivorship statistics, 2016. CA: A Cancer Journal for Clinicians.
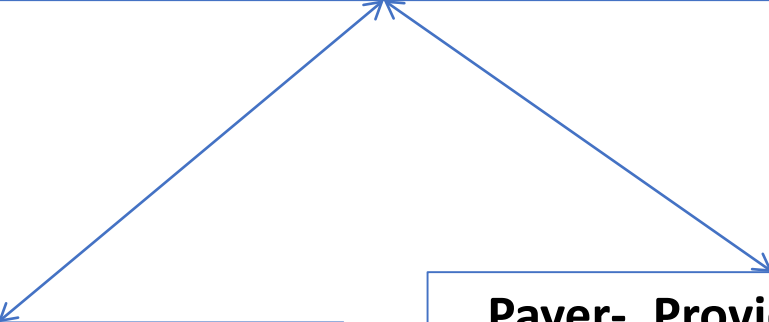
Economic Inputs

Structural Factors

Policy Factors

Cancer Control Continuum

Prevention   Screening   Treatment

Survivorship

End-of-Life

Patient-Level Outcomes

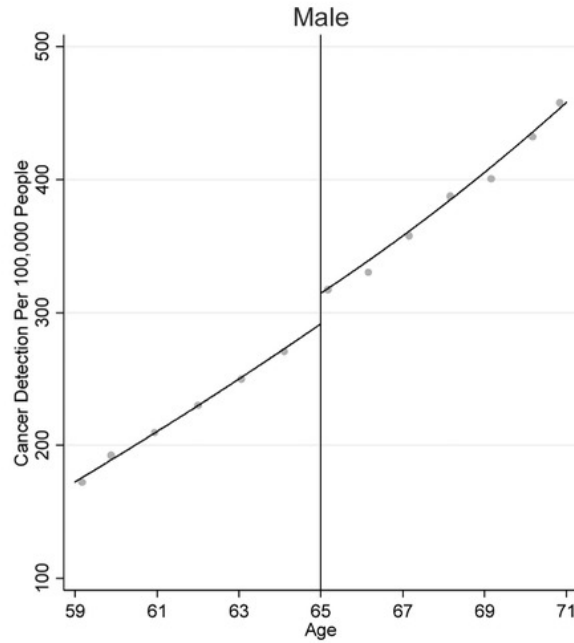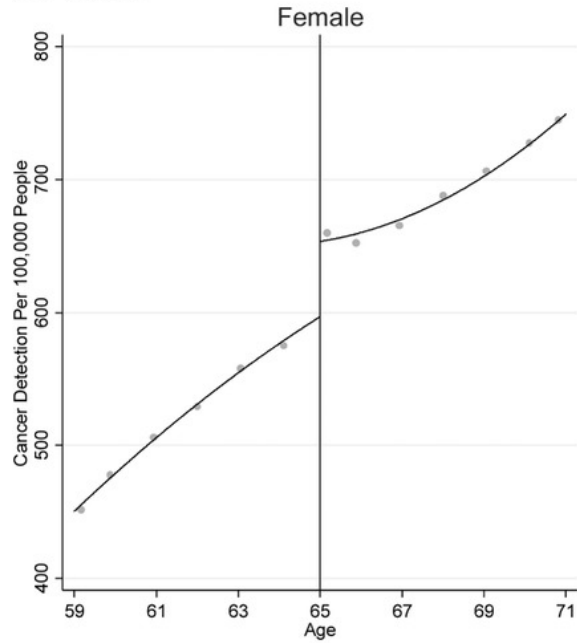**Payer-, Provider-, System- and Societal-Level Outcomes**

Key Issues in Survivorship Research: Survivor Perspective

- Long-term and late effects of initial treatment: health and financial
- Surveillance
  - Cancer recurrence
  - Other adverse events
  - Risk-stratified care
- Preventive care, behavior change, managing other chronic conditions
- Employment, income, and insurance
- Quality of life
- Caregiving
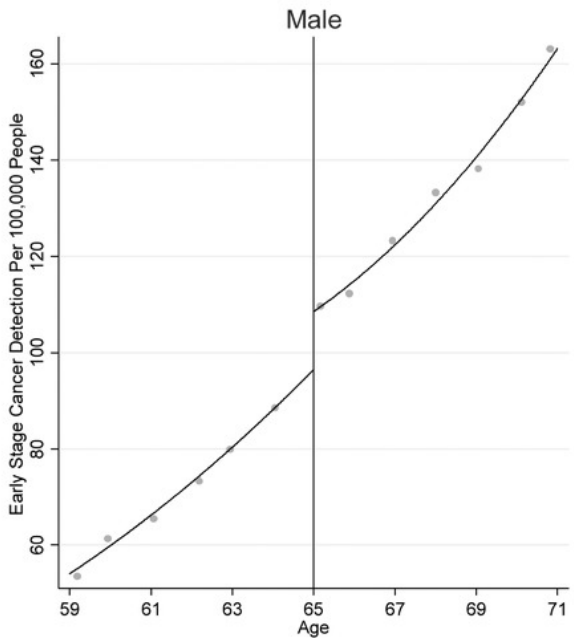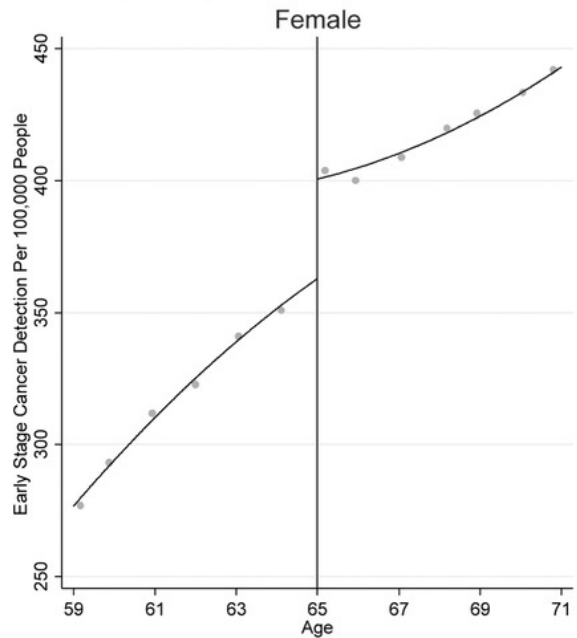- Palliative care
- End-of-life care

Key Issues in Survivorship Research: Policy & Provider Perspective

- Coordination of care
- Payment mechanism
  - FFS, managed care
- Payment innovations/incentives including new payment models
  - Oncology Care Model
  - Risk-Stratified Model
  - Primary Care Plus (seriously ill person option)…
- Diffusion of innovation and discontinuation of ineffective treatments
- Public and private insurance coverage options and expansion
  - High-deductible health plans in the survivorship vs. treatment phase

A. Total

B. Early Stage

Role of Insurance and Delivery Systems: Cancer Detection Before and After Medicare Eligibility

Source: Myerson et al. (2020)

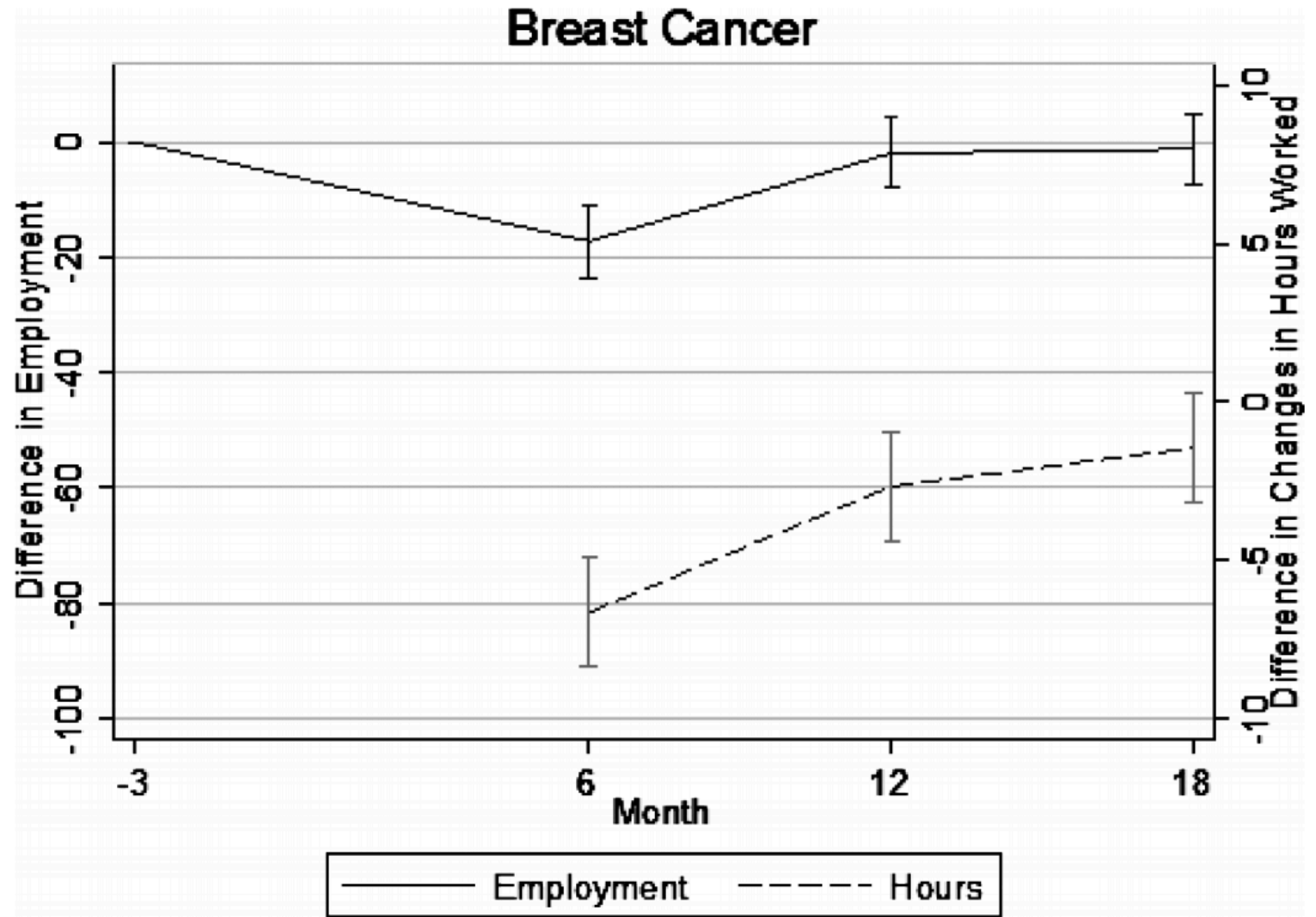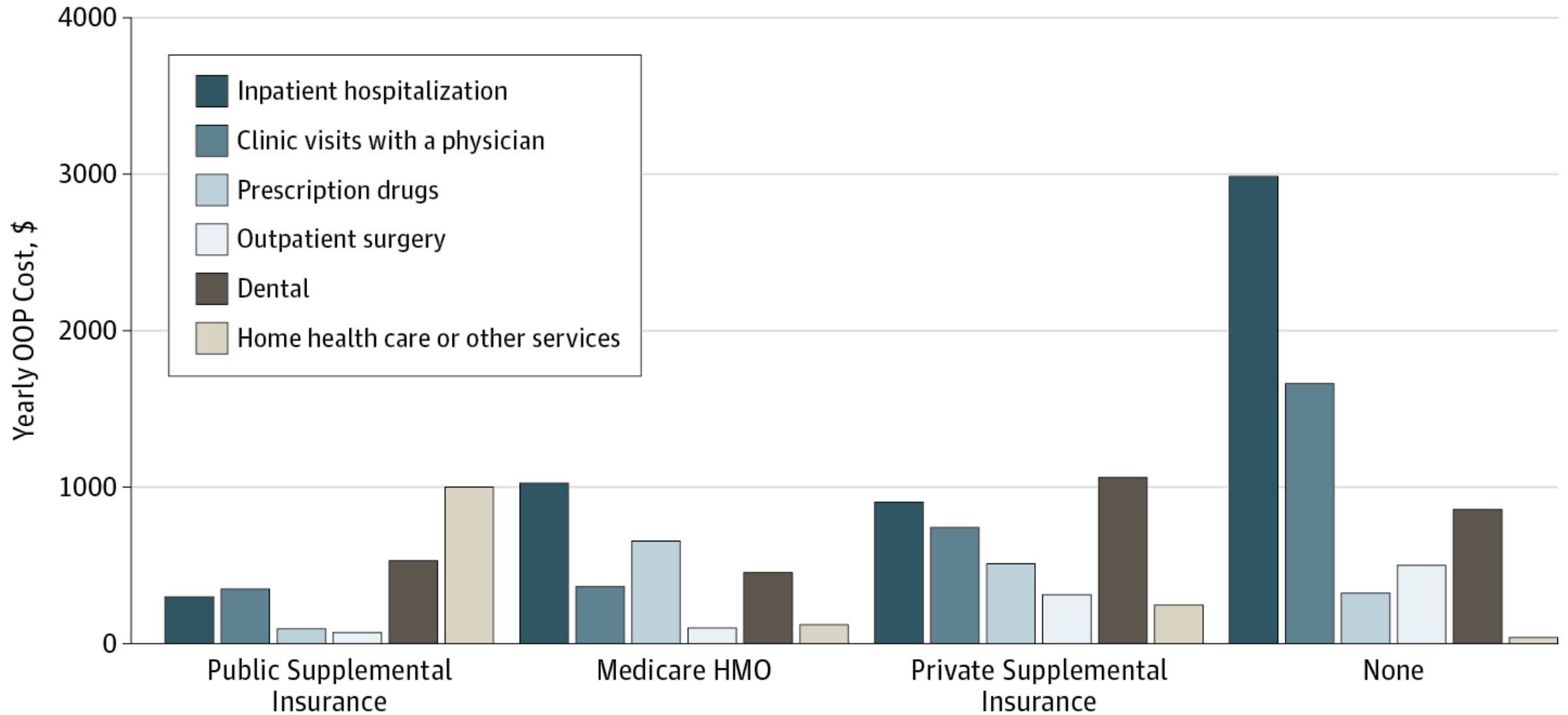# Effect of breast cancer diagnosis on labor supply

Figure 1. Differences in the probabilities of employment and changes in hours worked between breast cancer patients and control subjects, 6, 12, and 18 months following diagnosis.
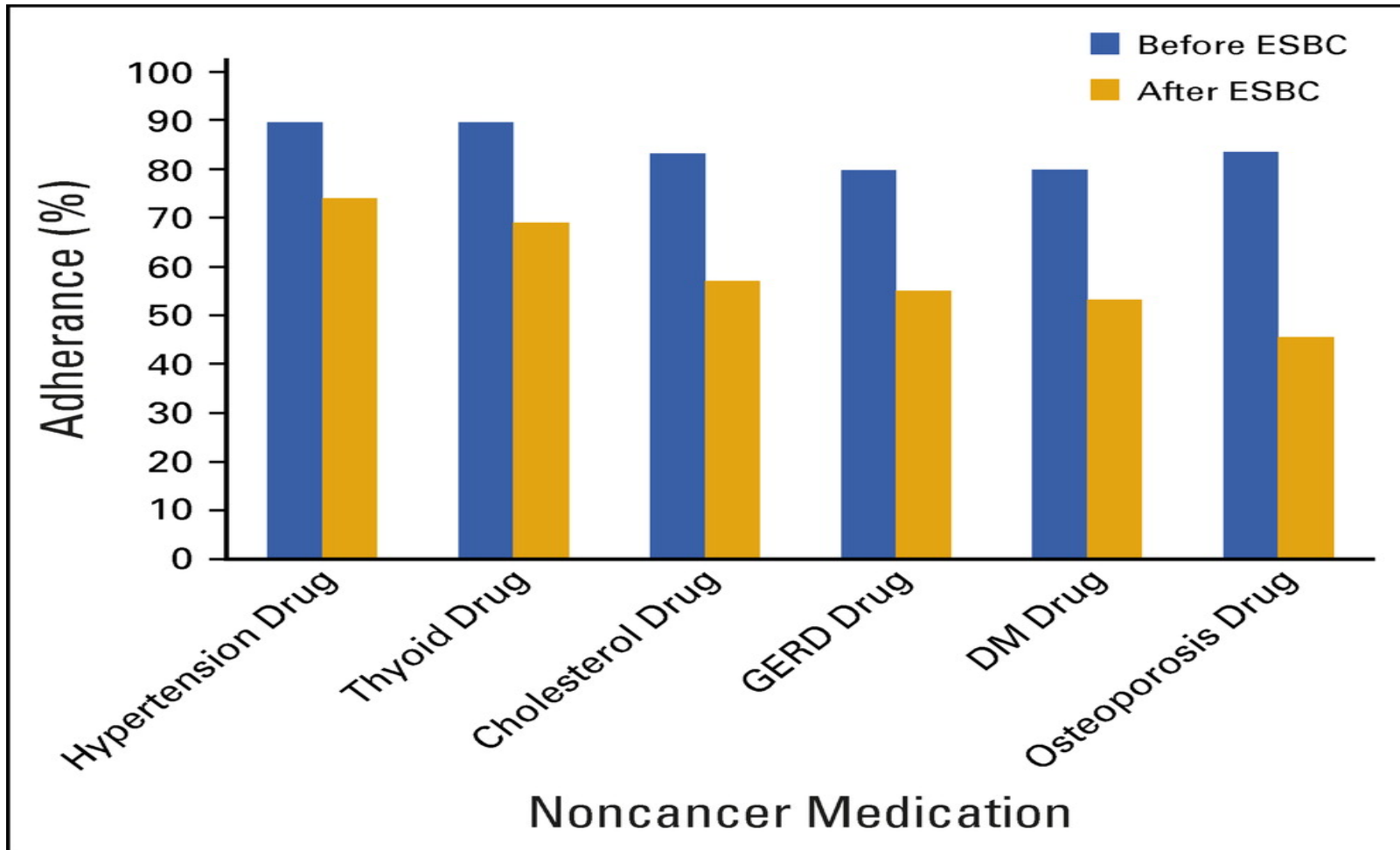
Quantifying financial burden of cancer care

Source: Narang and Nicholas (2017)

Spillovers from breast cancer care to other health conditions

Source: Yang et al., 2016

Where Can Economics Research Contribute to Survivorship Care?

- Recurrence and impact on treatment decisions including palliative and end-of-life care
- Impact of different delivery and payment models
  - Alternative payment models
  - Consolidation
  - Integrated versus non-integrated systems
- Patients' costs and burden and the impact on follow-up care and health & economic outcomes

Data challenges: Registry Data

- Lack of long-term follow-up
- Lack of detailed treatment information and adverse events/late effects/recurrence
- Limited inclusion of key outcomes like employment and financial toxicity
- Insurance transitions limit linkages to claims data, i.e. Medicaid mean spell < 1 year

Data Challenges: Administrative Data

- Sparse outcomes not related to billing/healthcare encounter
- Frequent insurance transitions among under-65
  - Panel datasets are selected samples or hard to assemble
  - Can't differentiate death vs. change of insurance without all-payer data
- Challenging to identify patients receiving inadequate care or care outside system
- Selected (patient, provider, facility) sample and lack of interoperability

Data Challenges: Survey Data

- Small sample sizes in long-running, nationally representative panels (i.e. HRS)
- Limited generalizability of surveys based on specific cancers or hospitals
- Self-report data poorly suited to collecting granular treatment and outcome data
- Often multi-year lag between data collection and availability

Strategies to increase research and capacity

- $ for health economics research
- Require economics-relevant outcomes in sponsored primary data collection
- Facilitate access to patient identifiers to add longitudinal outcomes to trials and other studies
- Support new data linkages with diverse longitudinal health and economic outcomes
- Research training in medical and social aspects of survivorship for economists and social scientists