

# Examples of SEER-Medicare Studies

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# Outline

- What comparisons have been the focus of my studies and proposals?
  - Types of cancer
  - Time frames
  - Comparison groups
  - Care and cost questions
- How to use the Medicare data to inform the analyses?
  - Not just for cost
- When is the right time to ask economic/cost questions?
- What have we found and what do we plan?



# **What comparisons have been the focus of my studies and proposals?**

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# Types of Cancer

- Criterion
  - Cancers for which studying long-term survivorship represents an important public health issue
- Types that have been studied and that are the focus of upcoming proposals
  - Colorectal
  - Breast
  - Prostate

## Time Frames

- All have focused on individuals who have survived at least nine months after diagnosis
  - More often at least one year
  - Could use a single cohort or compare cohorts over time
- Some have focused on individuals who survived five years

## Comparison Groups

- SEER-Medicare survivor population only
- Matched controls



# How to use the Medicare data to inform the analyses?

# Care and Cost Questions

- Preventive care
  - One year
    - Comparisons over time
  - Five years
- Costs
- Quality of other care & costs

# Medicare Data

- Inform patterns of care
  - Primary preventive care received
  - Surveillance
- Inform providers used
  - PCP
  - Oncology specialist
  - Both or neither
- Inform 3<sup>rd</sup> party expenditures
  - Different types of care



# **When is the right time to ask economic/cost questions?**



## The right time for economics

- Not always the first question
- Sometimes need to establish a pathway



# What Have We Found?

## Five 1-Year Colorectal Cancer Survivor Cohorts

- *Journal of General Internal Medicine*. 2008; 23(3): 254-9.
- Used cancer survivors only
- Relatively stable rates of preventive services
- Those who saw both a primary care provider and an oncology specialist were more likely to receive services than those who saw any combination

## 5-Year Colorectal Cancer Survivors

- *Journal of Clinical Oncology*. 2008; 26(7): 1073-9.
- Used cancer survivors only
- Reduced interaction with oncology specialists over time
- Reduced cancer screening over time
- Increase bone densitometry over time
- Call for long-term care plan

## Five 1-Year Breast Cancer Survivor Cohorts

- *Journal of Clinical Oncology*. 2009; 27(7):1054-61
- Used survivors and two groups of matched controls
  - One based on comorbidities
    - Age, race, sex, region & comorbidity
  - Other based on screening
    - Age, race, sex, region & had a mammogram in survivor's year of diagnosis
- Found relatively stable mix of providers visited
- Survivors who saw both an oncology specialist and primary care provider were most likely to get preventive services
- Survivors were more likely to receive a mammogram than the controls

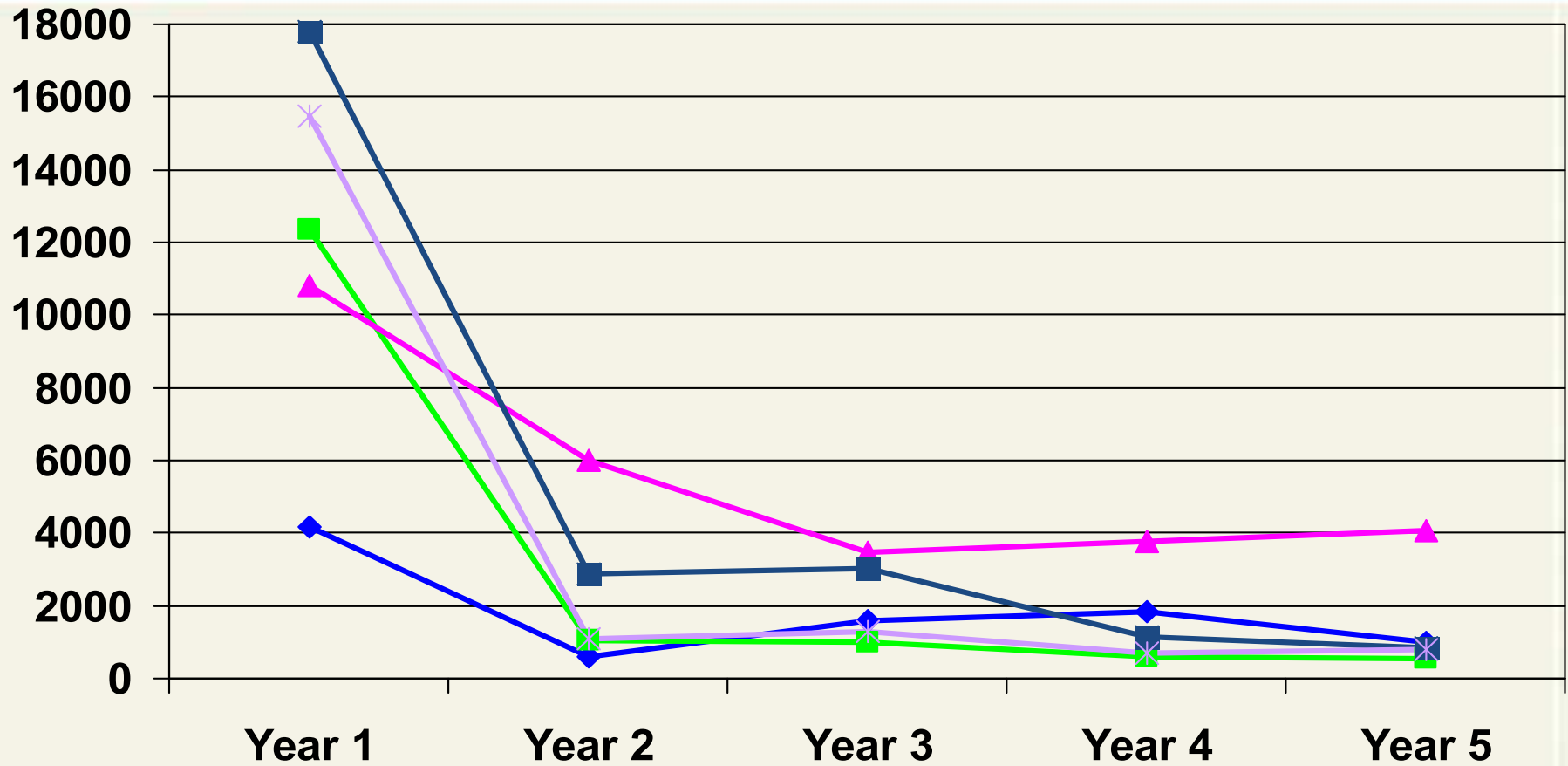
## 5-Year Breast Cancer Survivors

- *Journal of General Internal Medicine*. 2009; 24(4):469-74
- Used survivors and matched controls
  - Controls matched on age, race, sex, SEER region, and had a mammogram in survivor's year of diagnosis
- Survivors were consistently less likely to receive influenza vaccination, cholesterol screening, colorectal cancer screening, and bone densitometry but more likely to receive mammograms than controls



# Ongoing study

# Incremental Total Costs



◆ Active Surveillance   ■ Radiation   ▲ Hormonal   ■ Hormonal+Radiation   \* Surgery



# What Do We Plan?

## Proposal Being Written

- To compare the quality of care for comorbid conditions requiring acute interventions between cancer survivors and non-cancer controls
- To compare the quality of care for chronic comorbid conditions between cancer survivors and non-cancer controls
- To compare the rates of avoidable outcomes between cancer survivors and non-cancer controls
- To compare the association between quality indicators and costs among cancer survivors and matched controls

## Path to the Proposal

- Have demonstrated capacity to work with and match cases with the three cancers in question
- Preventive quality of care has been shown to differ
- Have demonstrated how to use cost data
- Next step is to extend to other quality measures and to look for an association between cost measures and quantity

## Conclusion

- Stepwise process of learning the data and proving the capacity to work with increasingly sophisticated questions using the data
  - Not really different from any other data set
  - Many unique opportunities presented by the data set



# Members of the Team

- Core
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  - Craig Earle, MD, MSc
  - Amanda Blackford, ScM
  - Robert Herbert
  - Bridget Neville, MPH
- Breast
  - Melinda Kantsiper, MD
  - Kimberly Peairs, MD
- Prostate
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