

Employment and Productivity Costs of Cancer

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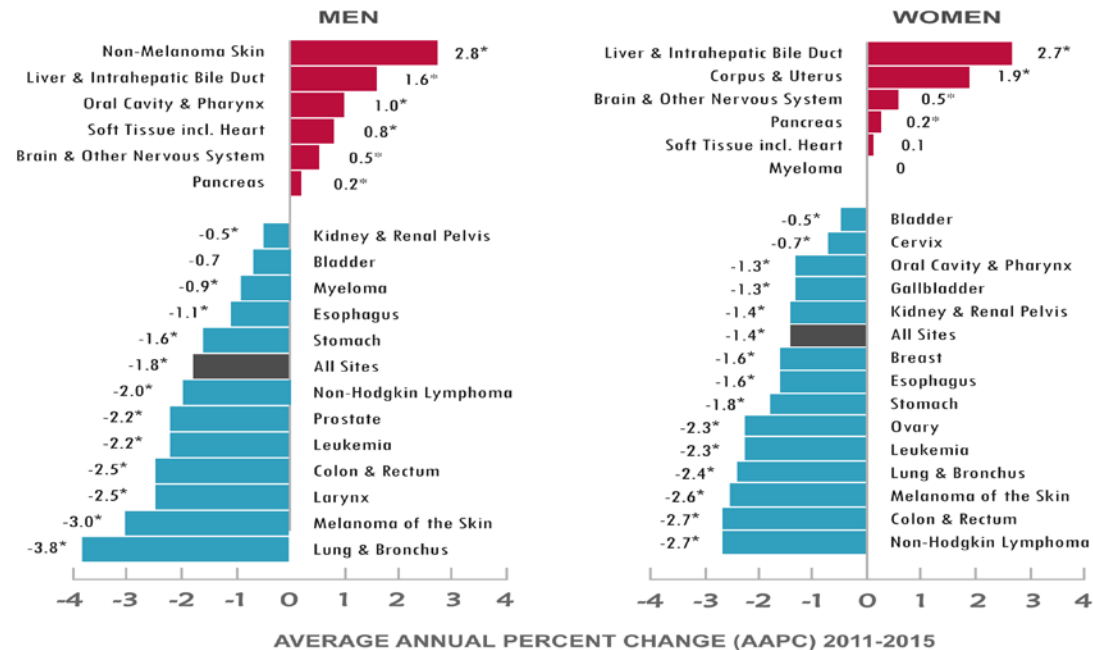
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Early detection, better treatment, longer survival

NATIONAL TRENDS IN CANCER DEATH RATES



*AAPC is significantly different from zero ($p < .05$).

seer.cancer.gov

Source: Annual Report to the Nation, Part 1: National Cancer Statistics

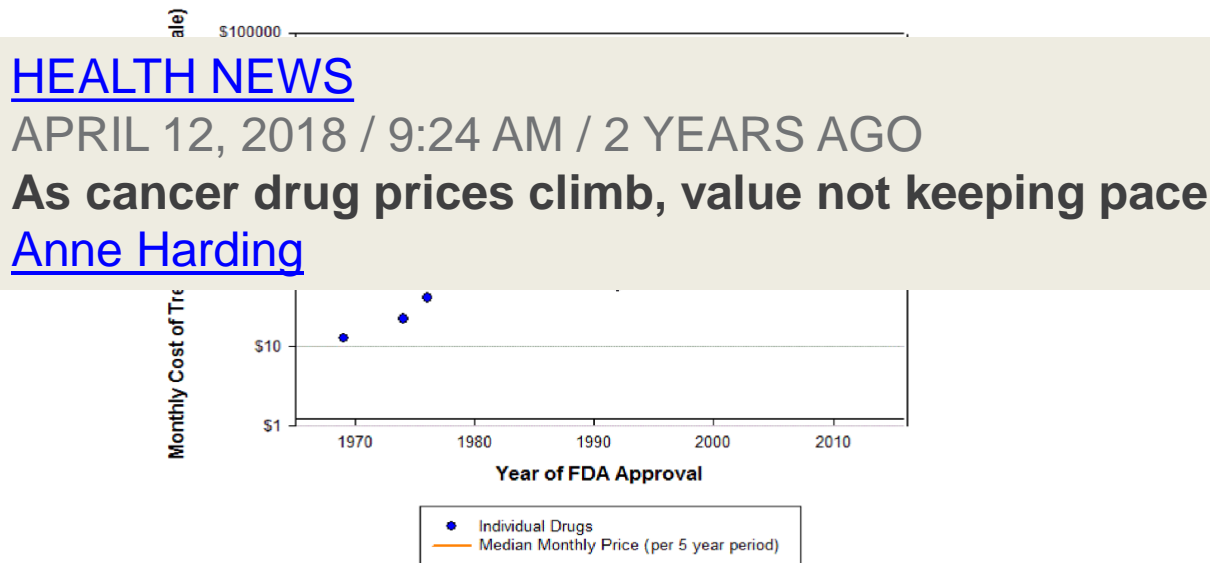
Great news, but not without economic challenges



Growing economic concerns

First, the cost of treatment

Monthly and Median Costs of Cancer Drugs at the Time of FDA Approval
1965-2016



Source: Peter B. Bach, MD, Memorial Sloan Kettering Cancer Center

Leading to a field of study “financial toxicity.”

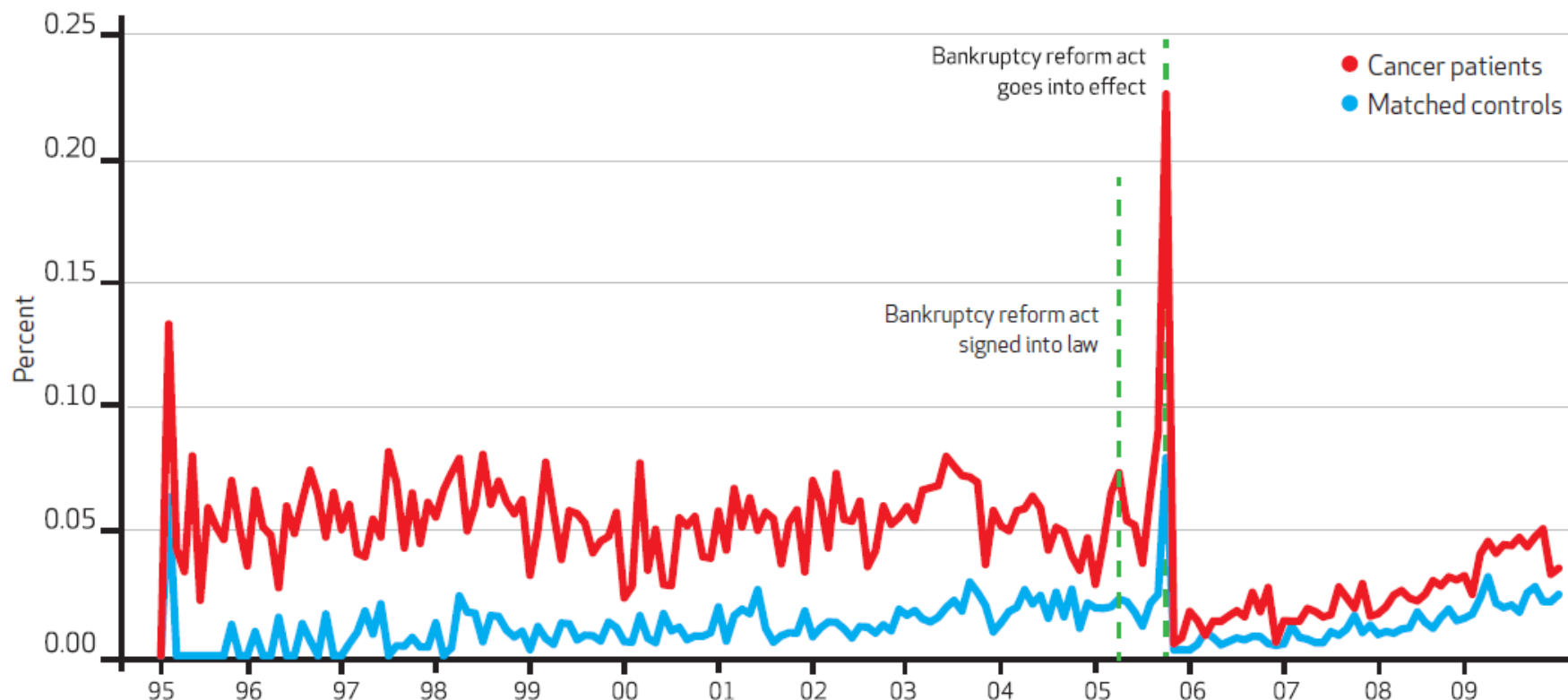


By Scott Ramsey, David Blough, Anne Kirchhoff, Karma Kreizenbeck, Catherine Fedorenko, Kyle Snell, Polly Newcomb, William Hollingworth, and Karen Overstreet

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The People-to-People Health
Foundation, Inc.

Washington State Cancer Patients Found To Be At Greater Risk For Bankruptcy Than People Without A Cancer Diagnosis

Monthly Rate Of Bankruptcies For Cancer Patients And Matched Group Without Cancer, Western Washington State, 1995–2009



Growing economic concerns

Second, the impact on employment

- Large population affected
 - ~15 million survivors
 - ~7 million are working age
 - Majority are women (58%)
- Shift in age at diagnosis
 - Emphasis on early detection leads to younger individuals diagnosed and treated



Growing economic concerns

Third, health insurance is tied to employment for those <65 years

- Survivors with employment-based health insurance (and other benefits) are more likely to continue working than survivors with another source of insurance
- Trends in high deductible plans, increased costs, greater cost sharing
- Uninsurance has risen with changes to the Affordable Care Act



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Leading to a stark decision for many patients and caregivers

Health insurance only way to afford

Necessary treatment;  employment impact



Extremely high costs

Health insurance available through employment



Intrinsic Motivation: Why work is so important

- Intrinsic
 - Sense of normalcy, source of distraction, establishment of routine
 - Self-worth & accomplishment
- Signals recovery to family, friends, & co-workers
- Objective measure

Is he/she back to work yet?



Trends in treatment and work complicate matters

- Outpatient and home setting for treatment
 - Changing expectations for work ability
- New therapies continue until evidence of disease progression
 - Impact on work unknown
 - Very high cost
- Longer survival



Workforce Trends

- Trend to remain in the workforce longer
 - Require more resources to retire
- More women entering the workforce
- Health insurance norm for large employers but unlikely in small employers
 - High deductible plans



Workforce trends

- 48% of the workforce (~58 Million people) employed by small businesses and are NOT covered by Americans with Disabilities Act or Family Medical Leave Act
- 20% to 30% of workers engage in freelance work



Work Context

- Policies & protections have not kept up with changing workforce trends
 - Small employers not covered
- Paid sick leave
- Unavailability of insurance outside of employer
 - Lack of these benefits creates more distress & greater financial burden
- Accommodations
 - Survivors with accommodating employers more likely to remain employed



Stark Choices

Treatment or work?

Continue to work when recovery is needed?

Work more hours to maintain health insurance?

Solutions

- • Part policy
 - Health insurance access
 - Sick leave and other benefits
 - Expand ADA and FMLA to small employers
 - Coverage for contract and self-employed workers
- Part treatment innovation
 - Fewer side effects
 - Understanding of side effects
 - Work as part of the treatment discussion

Evidence for infusion and radiation therapy following surgery

Employment & Hours Worked following diagnosis

Breast and Prostate cancer survivors

- Treatment phase (dx to 6 months)
 - Lowest employment rates; fewest hours worked
- 12 to 18 months
 - Return to work for most patients
 - Hours about the same or a little less
- Long-term
 - Employment rates start to decline
 - Among those who are employed, work more hours than non-cancer controls

Bradley et al, 2013; Bradley et al., 2007; Bradley et al., 2005 (a) (b); Bradley et al., 2002



Generating the evidence... policy focus

Health insurance

- **Employment-contingent health insurance incentivizes greater labor supply**

Hours
worked

8% to 11% difference in hours worked; “Hours lock”

Options
matter

Strongest evidence when comparing women who differ in dependency on their jobs for insurance, but are more similar in other characteristics



Annual Lost Productivity, Adults age 18-64, MEPS, 2008-2010 (U.S.)

	Recently diagnosed <1 year	Previously diagnosed >1	No Cancer
Unable to work (%)	7.9	8.4	4.7
Missed work days among the employed	16.9	4.6	3.3
Total per capital productivity loss (\$)	4,694	3,593	2,040

Source: Guy et al., 2013, *JCO*; Adjusted for age, sex, race/ethnicity, education, and comorbid conditions. Total productivity costs includes estimates for household productivity.



**\$9.6 to \$16 Billion annual
net productivity loss for
those 18 to 64**



Return to work: Mediators

Treatment

- Shorter regimens
- Well-managed symptoms
- Planning for time away from work (health care provider & employer)
- Awareness of work situation

Accommodations

- Flexible schedule
- “Special” equipment
- Supportive co-workers

Patient

- Good physical and mental functioning

Neumark and Bradley, 2015; Barnes and Bradley, 2014; Bouknight and Bradley, 2006



Research needed to reduce the burden at the intersection of cancer, work, & cost

1. Generate the evidence

- New agents, particularly oral agents, & their impact on employment
- Context of outpatient or home settings, high cost, without end in sight

2. Quality measure

- Discuss the impact of treatment on employment; part of shared decision making; pre-emptive actions to reduce loss
- Understand potential impact on health insurance coverage (i.e., hours needed to maintain health insurance)

3. Dissemination & implementation to patients, caregivers, employers, oncology care team

- Education about rights, benefits, communication
- Connection to resources within the community
- Practice change; translation



New evidence needed...

New agents & employment

- Symptoms & side effects on employment is poorly understood
 - Given the typical side effects of powerful drugs, it would be surprising if there were not an impact on work ability
 - Long-term treatment
 - Costly, potentially causing stronger ‘job lock’ to maintain health insurance
 - Financial burden for those who cannot work
- Employed survivors may prefer oral agents
- Employers perceptions
 - Few side effects
 - “Costing” the firm



Develop the interventions

- Treatments with fewest work limitations
 - Differences between antineoplastic agents
 - Radiation (short vs longer treatment periods)
- Supportive therapies for work
 - Reduce side effects that interfere; be mindful that treatment for side effects also interfere with work
- Impact of employment as part of shared decision making in treatment selection
- Unexplored navigator role for the oncology care team (regardless of treatment)



Develop the interventions

Role of the caregiver – subject to many of the same stressors as patients but with fewer protections

- Randomized controlled trial to reduce stress & help employed caregivers remain employed
 - Biomarkers
 - Flexible intervention
 - Disseminate to employers & providers



Stay tuned!



Develop the interventions

Employers & their response to cancer survivors

- Supportive work culture improves work ability
 - Only 44% of employees report that their employer supports well-being
 - 1 in 3 employees report chronic work-related stress
 - Survivors with accommodating employers more likely to return to work
 - Low-income women disproportionately more likely to have an unaccommodating employer (Blinder et al.)



Develop the interventions

- A systematic review of interventions found only 19 studies that met quality criteria
 - Quality of evidence was low to moderate, small sample sizes, effect ambivalent
- Employers are nonetheless interested in learning what they need to do to accommodate ill employees.
- Test approaches in communication, navigation, supervisor training



Develop the interventions

Employer Accommodations

- Education
- Flexible schedule; fewer hours worked
- Laptops that allow for working from home
- Graduated return to work plan
- Retraining
- Free approaches that make a big difference:
 - Supervisor empathy, understanding, and honesty

Bradley et al., 2018



Develop the interventions

- A business case can be made for offering accommodations
 - Retention: Employers spend 1/3 or more of an employee's annual salary on replacement costs
 - Customer loyalty
 - Ability to attract talent through work wellness culture
 - Avoidance of legal action
 - Reduced error rate



Patient & caregiver needs

- Information
 - How will treatment effect work ability?
 - What protections are available?
- Financial
 - What will my insurance pay?
 - What if I lose (or never had) employer-based health insurance?
- Resources
 - What can I do to minimize loss at work and financially?



Provider

- Information
 - Employment outcomes incorporated into clinical trials
 - Treatments that minimize impact on productivity
 - Resources/referrals for patients
- Financial
 - Cost of “financial/employment navigator”
 - Time to understand different insurance benefits
 - Not billable activities



Policies

- Paid leave
- Coverage for those employed by small firms
- Health insurance outside of employers



Summary

Emerging economic trends in cancer

- Cost of treatment is rising
- Impact of new therapies on employment unknown
- Policies & protections inadequate for changing workforce
- Health insurance remains tied to employment for those <65

Opportunities for research

- Impact on new agents on work (ability & incentives)
- Integration into clinical practice
 - Impact on work
 - Impact on health insurance
- Solutions for contract, self-employed, and employed by small employers



Conclusions

- Work ability is not integrated into clinical practice, providing opportunity; not entirely integrated into “financial toxicity”
- Many directions for future work & policy impact
- Translation is critical

New therapies continue until evidence of disease progression.



Questions?

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