FRED HUTCHINSON CANCER RESEARCH CENTER

A LIFE OF SCIENCE

The Economic Burden of Cancer Treatment on Patients and Families

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Delivering Affordable Cancer Care in the 21st Century

Session 1: Current Challenges to the Delivery of Affordable Care

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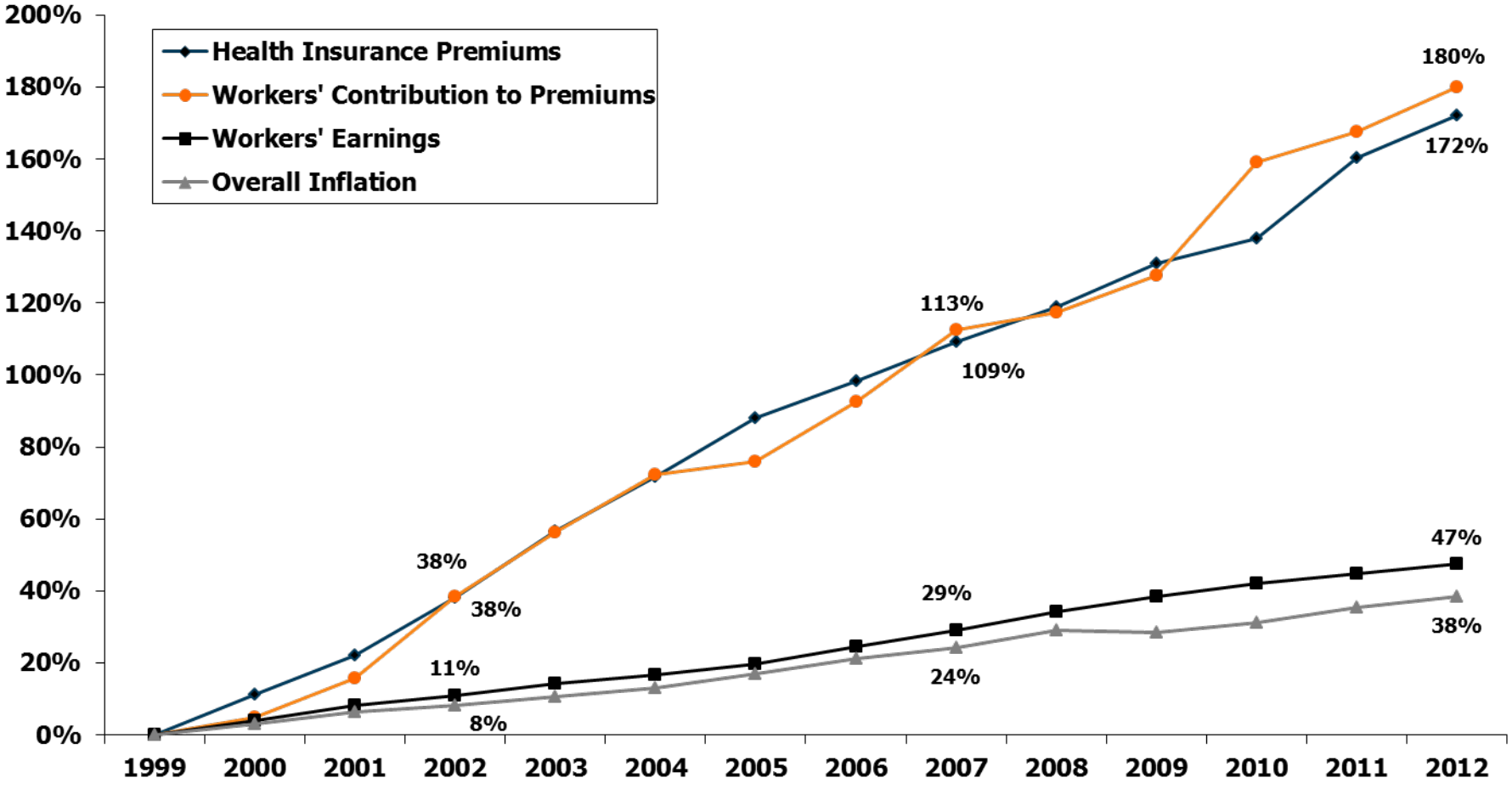
Patients are Sharing a Rising Proportion of Cancer Treatment Costs

- Rising health insurance premiums / deductibles
- High copayments for oral chemotherapeutics (outpatient prescription plans)
- Out-of-pocket spending for off-label diagnostics or treatments

Cumulative Increases in Health Insurance Premiums, Workers' Contributions to Premiums, Inflation, and Workers' Earnings, 1999-2012



Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2012. Bureau of Labor Statistics, Consumer Price Index, U.S. City Average of Annual Inflation (April to April), 1999-2012; Bureau of Labor Statistics, Seasonally Adjusted Data from the Current Employment Statistics Survey, 1999-2012 (April to April).

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Cancer Patients are Financially Vulnerable

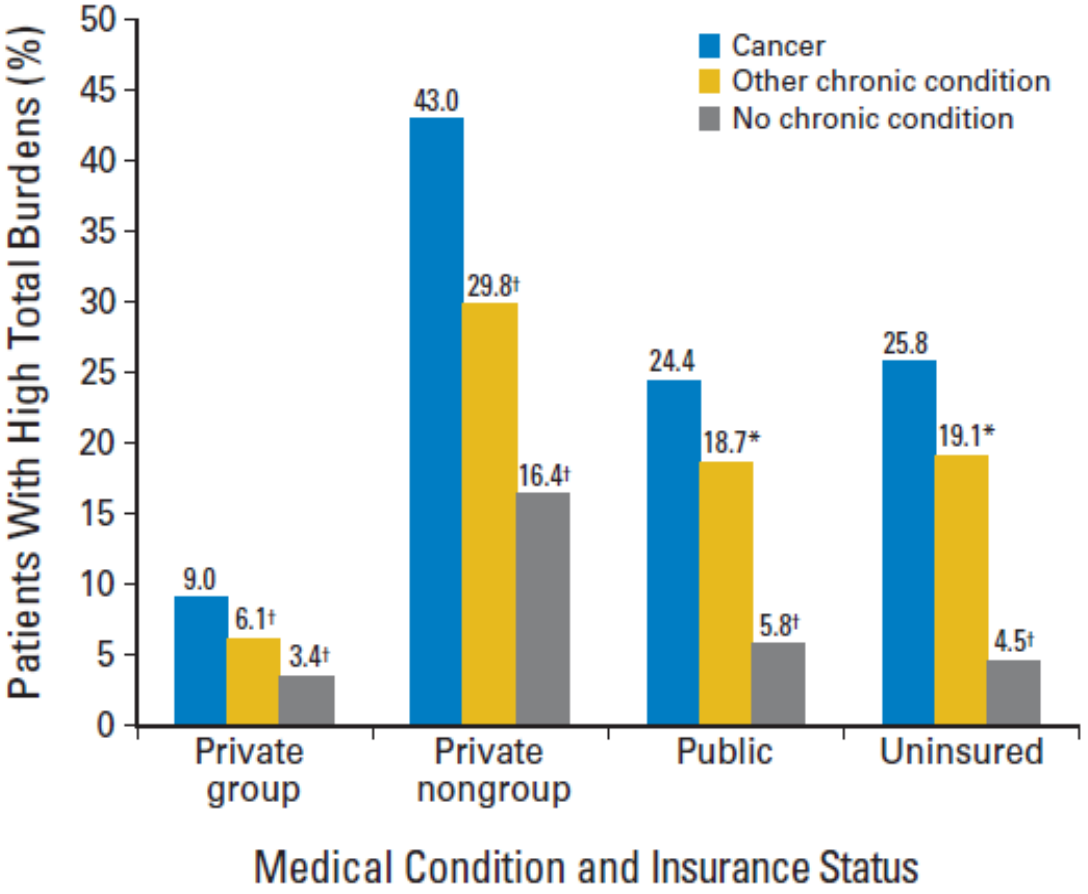
- Frequent infusion visits – transportation, food
- Loss of employment, decreased income
- Life-threating illness – accept new treatments 'at any price'

Consequences of High Out-of-Pocket Spending

- Financial hardships – loans, debt, depletion of assets, personal bankruptcy
- Noncompliance?
- Poorer quality of life?
- Better clinical outcomes?

Financial Burden of Cancer Relative to Other Medical Conditions

- Medical Expenditure Panel Survey (MEPS) – 2001-2008
- 'High Total Burden' - >20% of income in health-related spending



Bernard, D et al. National Estimates of Out-of-Pocket Healthcare Expenditure Burdens Among Nonelderly Adults with Cancer: 2001-2008. *J Clin Oncol.* 2011; 29: 2821-2826.

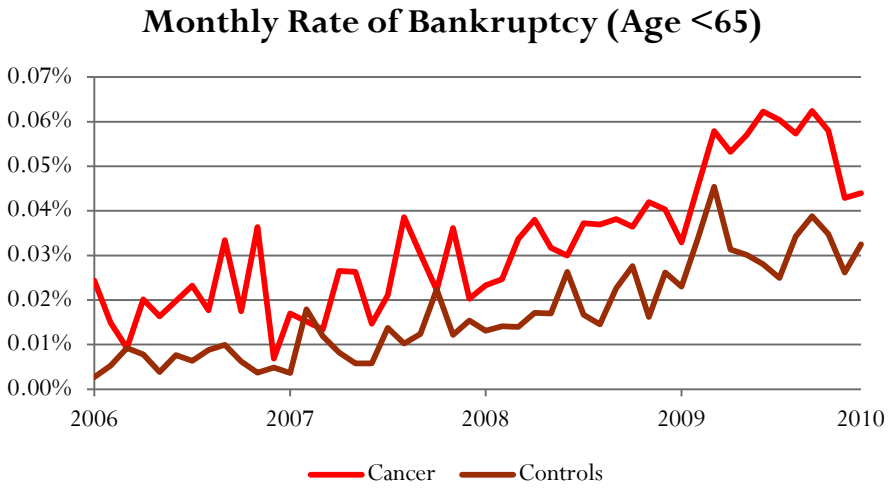
Treatment-Related Financial Hardship

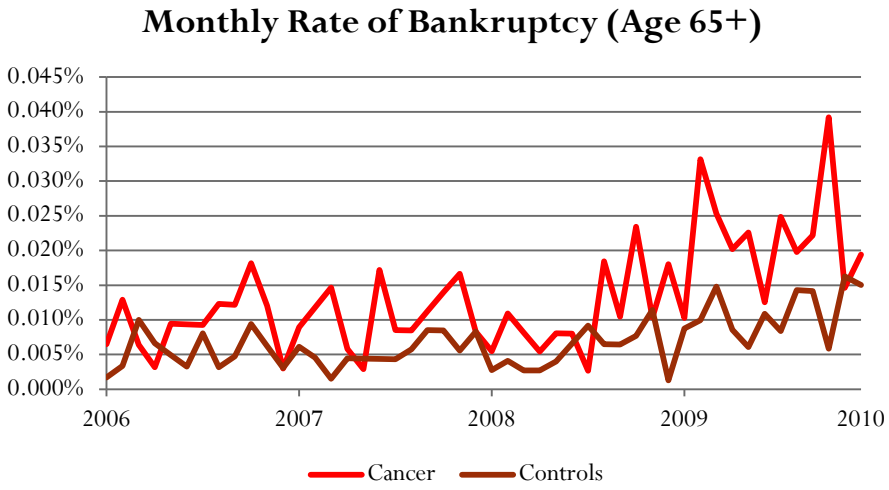
104 pts (38%) reported at least 1 treatment-related financial hardship

Treatment-related Financial Hardship	**%**
Respondents	**N=284**
Currently in debt	21.8% (*Mean $ debt = $26,860)*
< 12 months since diagnosis	17.1%
≥ 12 months since diagnosis	22.7%
Borrowed money from family/friends	16.5% (*Mean $ borrowed = $14,144)*
Sold home	1.1%
Refinanced / 2nd mortgage on home	4.2%
Decline in income	42%

Shankaran, V et al. 'Risk Factors for Financial Hardship in Patients Receiving Adjuvant Therapy for Colon Cancer: A Population-Based Exploratory Analysis.' *J Clin Oncol.* May 2012

Bankruptcy Rates Cancer Patients, Matched Controls Puget Sound SEER Region 2006-2010





Slide courtesy of Scott Ramsey MD, PhD

Delivering Affordable Care in the 21st Century

- 'Affordable' to society
- 'Affordable' to *individual patients*

A Way Forward: Defining Treatment Value from the Patient Perspective

- Include discussions about cost in the treatment decision-making process
- Develop systems to inform oncologists and patients about total and out-of-pocket costs of recommended regimens
- Incorporate cost information into clinical practice guidelines

First-line Gastric Cancer Regimens (NCCN)

Initial regimen	Median OS	Medicare reimbursement 1 cycle	Medicare reimbursement 6 months
DCF	9.2 mo	$1,534.43	$9,206.56
ECF	9.9 mo	$104.98	$839.84
ECX	9.9 mo	$2,269.06	$18,152.51
EOF	9.3 mo	$4,420.67	$35,365.32
EOX	11.2 mo	$7,184.75	$57,478.03

Choosing Between Guideline-Endorsed Treatment Options

- Not all treatment options have the same financial impact on patients
- Copay for capecitabine – range $0 to 30-40% depending on insurance plan
- Toxicity, comorbidities, convenience, distance from cancer center, *and* cost to patient should play a role in decision-making

High Out-of-Pocket Spending at the End of Life

Example: Regorafenib recently approved by FDA (Sept 2012) for the treatment of refractory metastatic colorectal cancer – associated with statistically significant median survival benefit (6.4 vs. 5.0 months, p=0.01)

Considerations in Prescribing Subsequent Line Treatment with Small Clinical Benefit

- Patient performance status
- Anticipated toxicity
- Patient motivation
- COST TO PATIENT – Discussion of cost upfront prior to prescribing treatment
- Is the estimated benefit worth the out-of-pocket expense?

Communicating about Costs: Challenges

- Time-consuming and unfamiliar
- Requires a system to provide information upfront to patients and oncologists
- Inequitable?

Summary

- Cancer patients are experiencing high out-of-pocket treatment expenses
- Treatment decisions have a direct and significant impact on patients' finances
- Improving information exchange about out-of-pocket expenses in the treatment discussion could help to mitigate the financial burden of cancer treatment on patient and their families

Role of Cancer Providers

- Pharmacy billing specialists provide real-time information about out-of-pocket costs
- Infrastructure in place to counsel patients about copay assistance and other financial resources
- Education in conducting comprehensive discussion of risk and benefit – includes financial risk