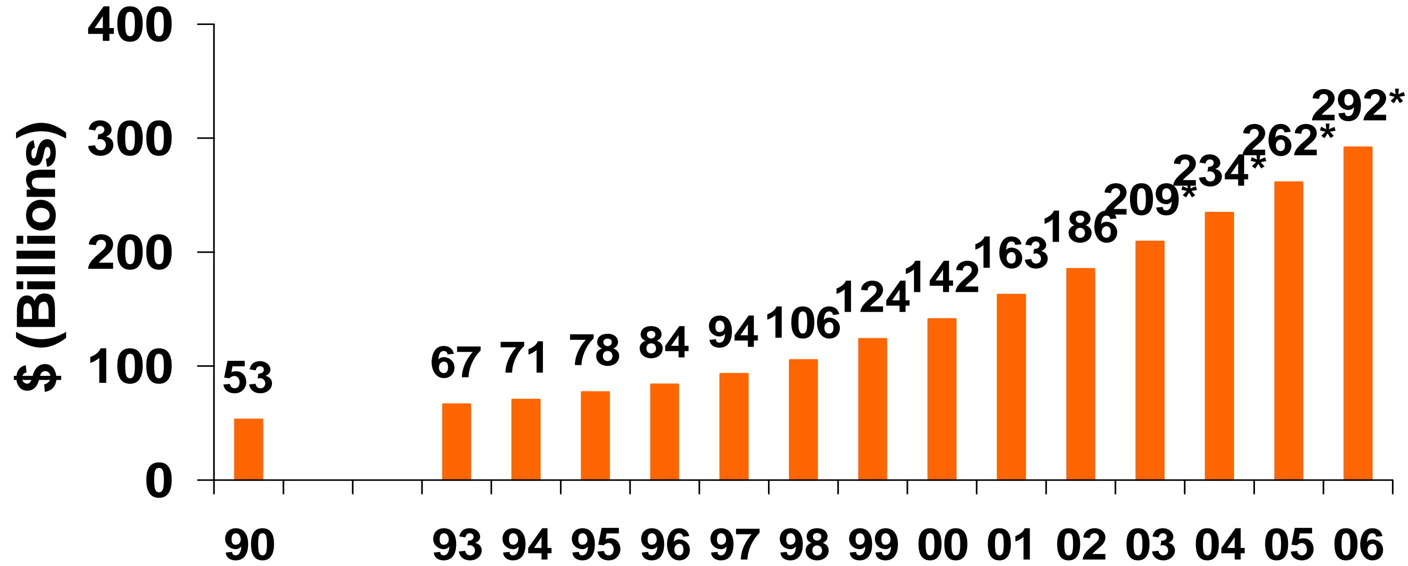
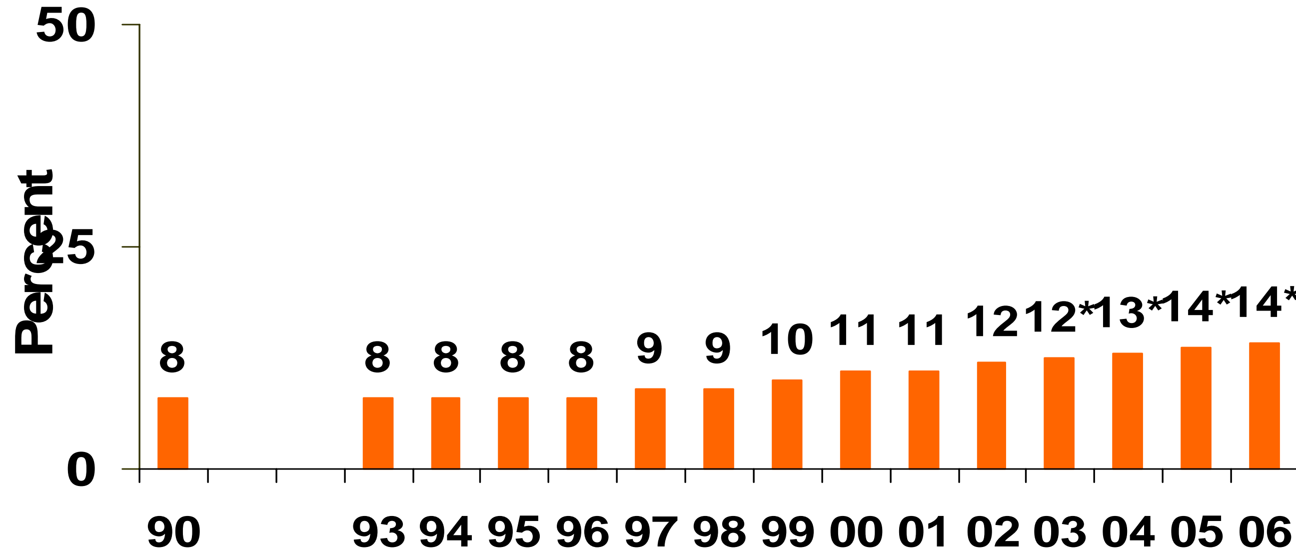
Implications of Research on Drug Cost Containment for the Medicare Drug Benefit

Stephen Soumerai, ScD
Harvard Medical School and Harvard Pilgrim Health Care

U.S. Prescription Drug Expenditures



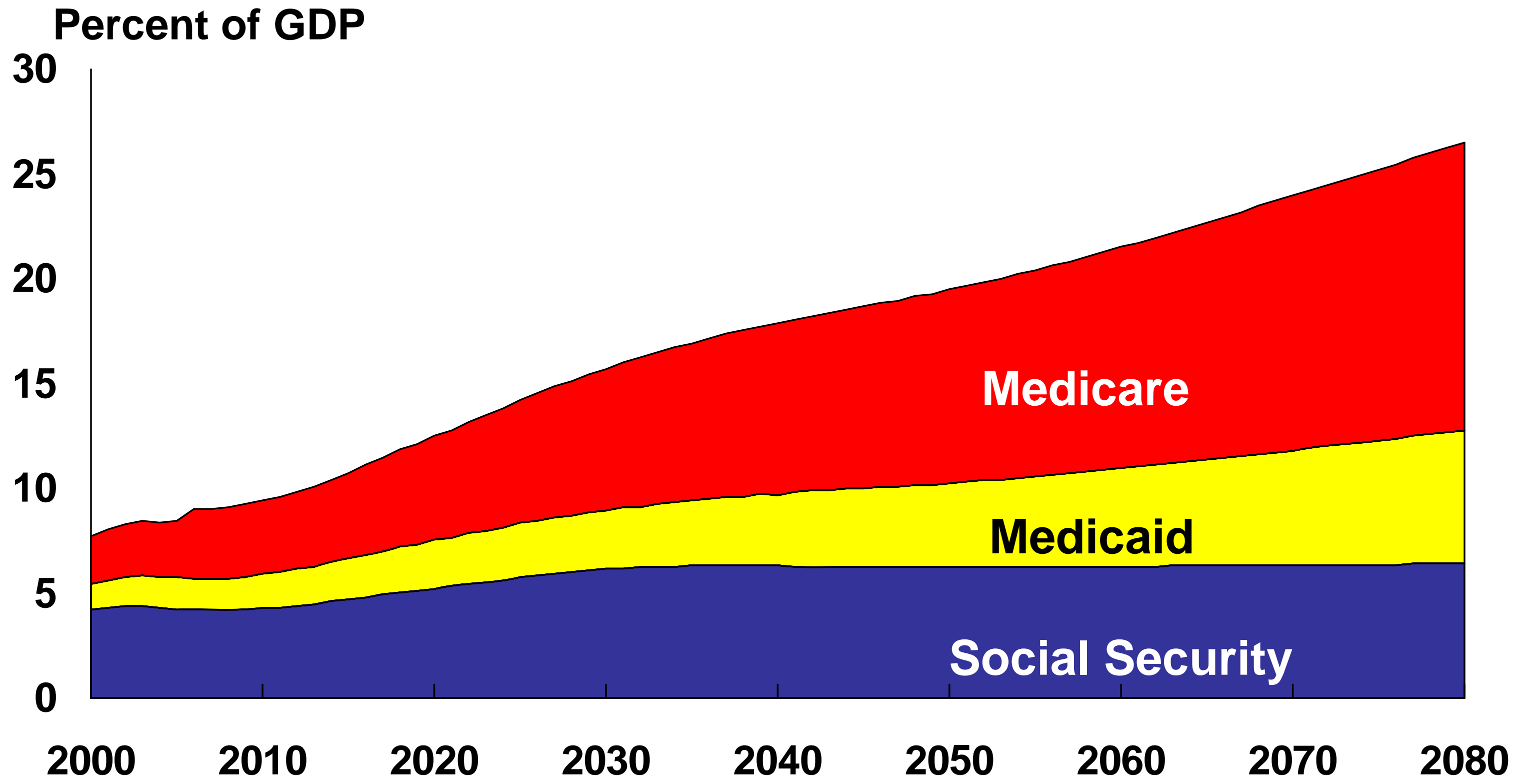
U.S. Rx Drug $ as Proportion of Health Expenditures



*Projected

Source: Data from the Centers for Medicare & Medicaid Services, Office of the Actuary

Social Security, Medicare, and Medicaid Spending as a Percent of GDP



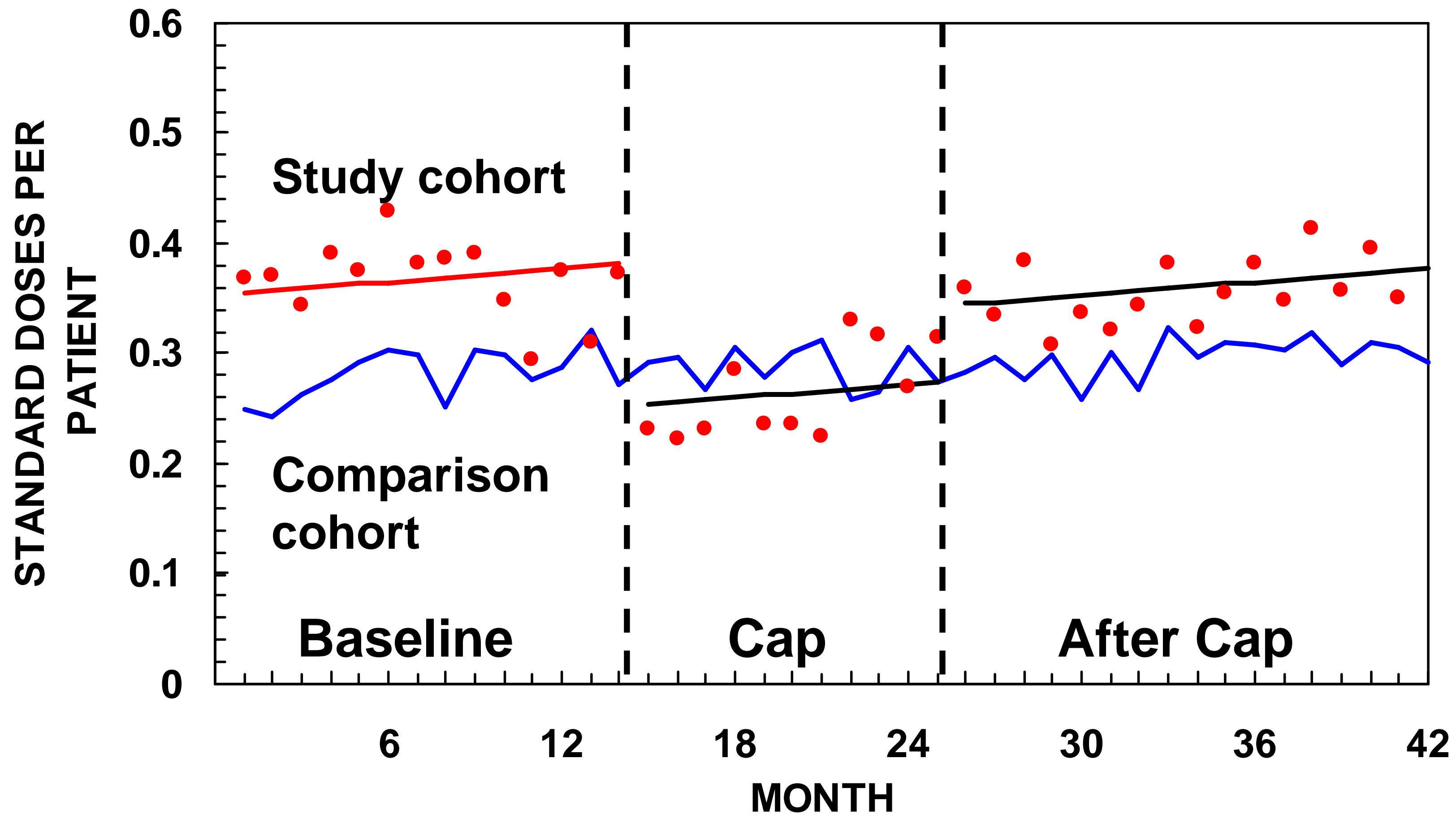
Source: GAO analysis based on data from the Office of the Chief Actuary, Social Security Administration, Office of the Actuary, Centers for Medicare and Medicaid Services, and the Congressional Budget Office.

Note: Social Security and Medicare projections based on the intermediate assumptions of the 2005 Trustees' Reports. Medicaid projections based on CBO's January 2006 short-term Medicaid estimates and CBO's December 2005 long-term Medicaid projections under mid-range assumptions.

Examples From Pharmaceutical Policy Research

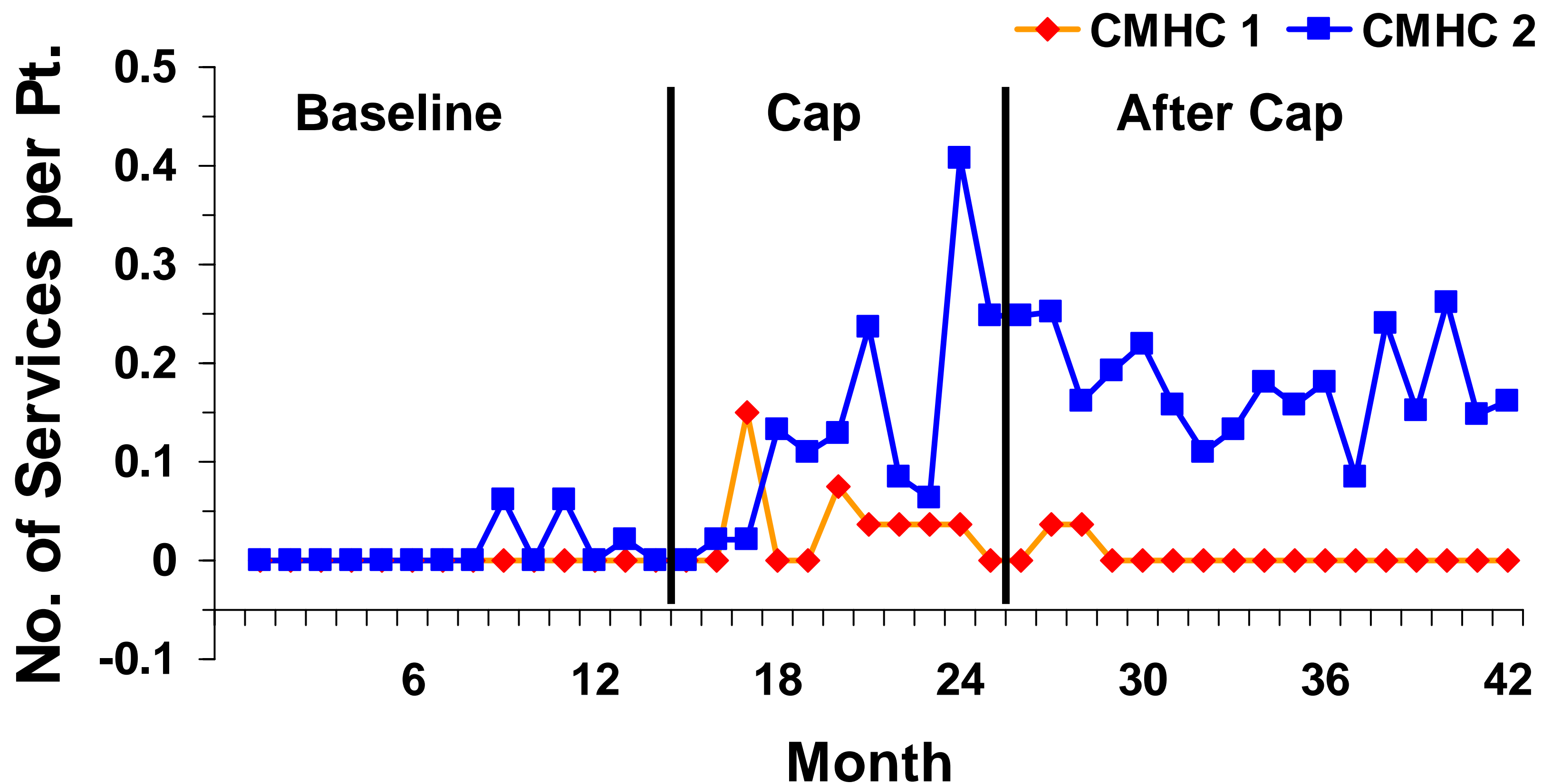
- Limits (caps) on reimbursement
  - Similar to “donut hole”
- Drug cost sharing
- Preferred Drug Lists/ Prior authorization

Effects of Cap on Antidepressant Use



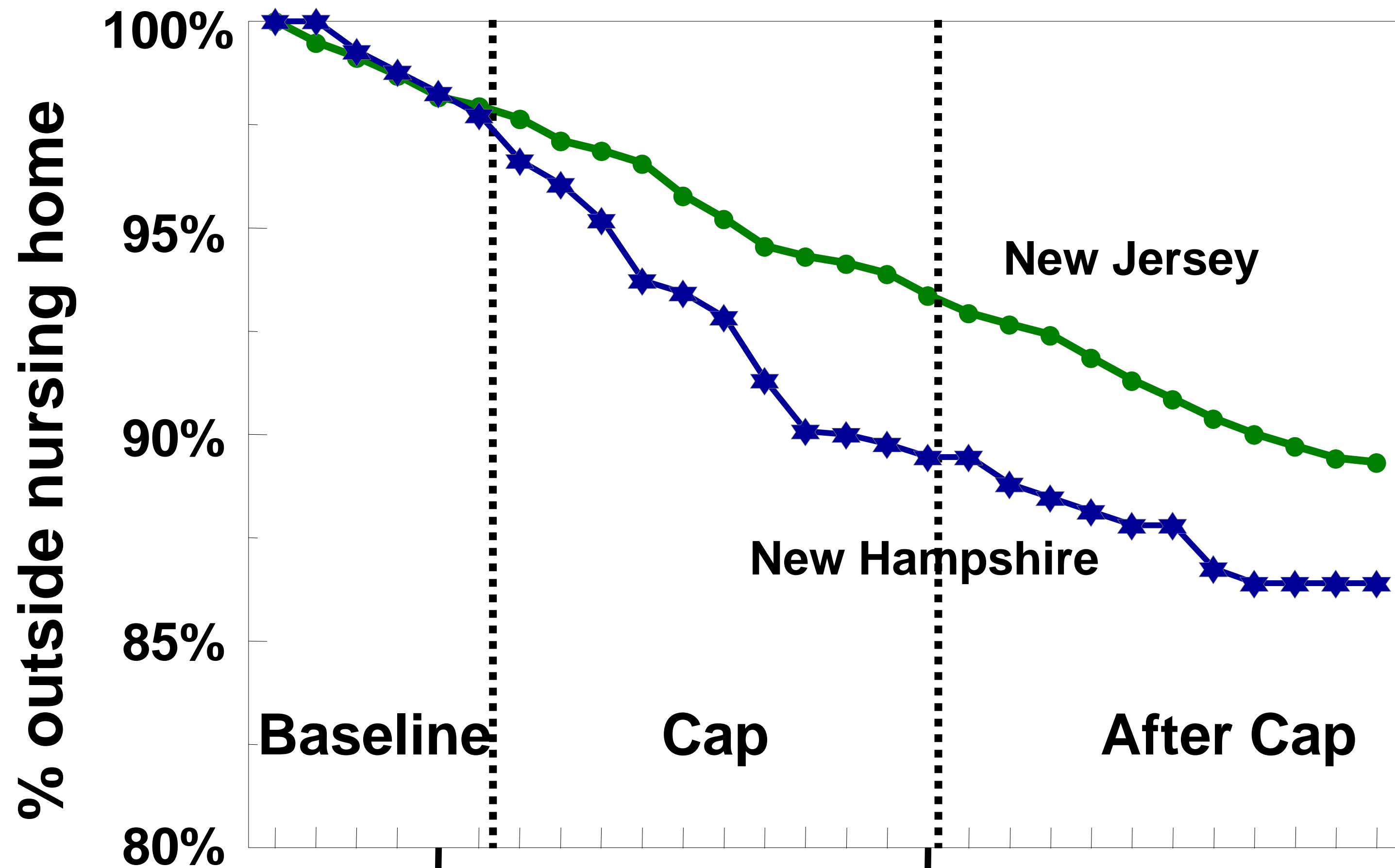
Source: Soumerai et al. New Eng J Med 1994

Effect of Cap on Emergency Mental Health Services



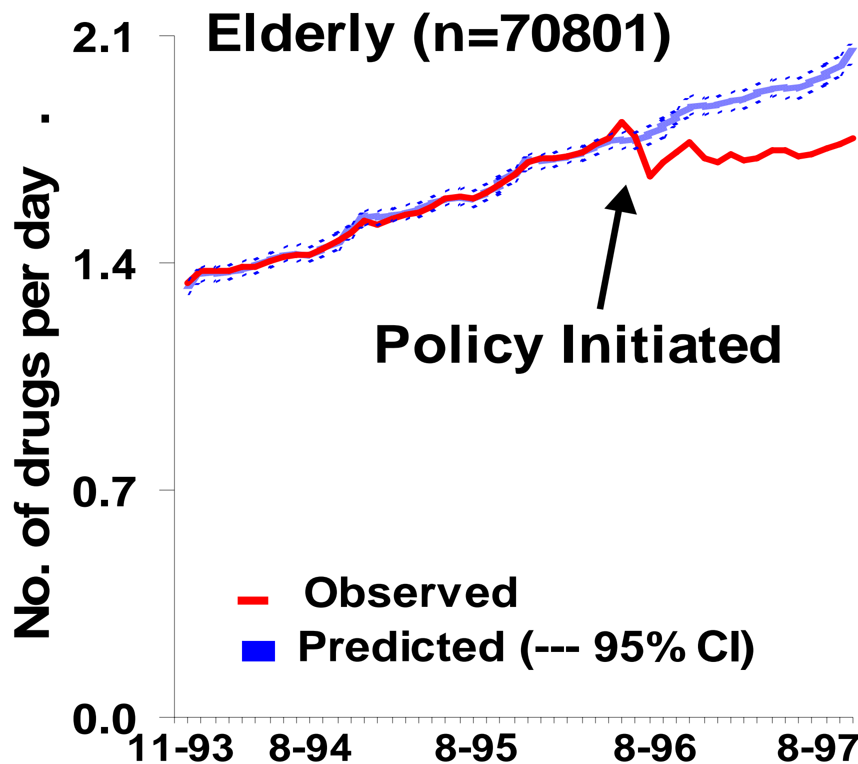
Source: Soumerai et al. New Eng J Med 1994

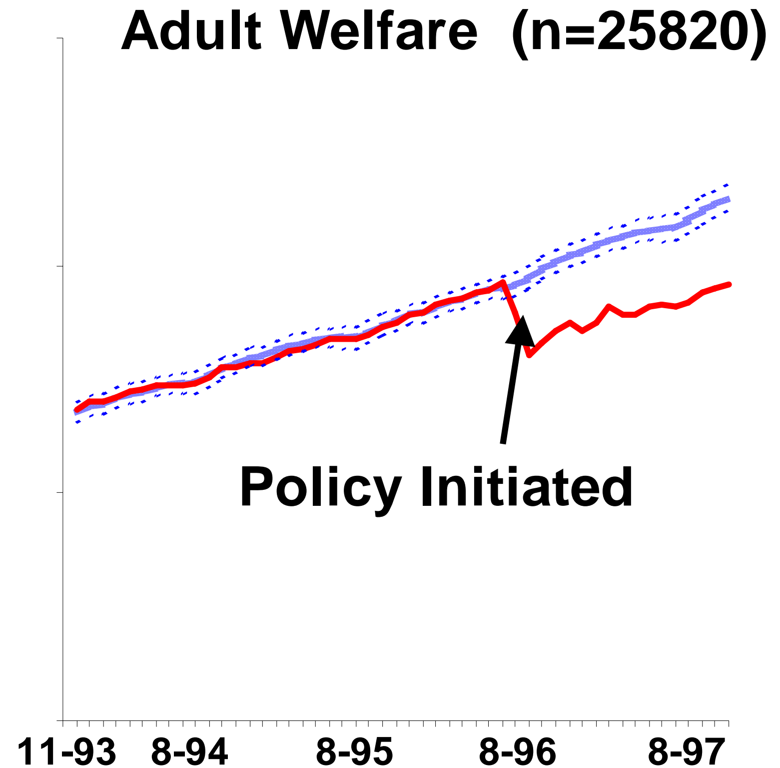
Effects of Reimbursement Cap on Nursing Home Admissions



Source: Soumerai et al. New Eng J Med 1991

Observed & Predicted Use of Essential Drugs With Change in Cost Sharing





Source: Tamblyn R et al, JAMA 2001; 285: 421-429.

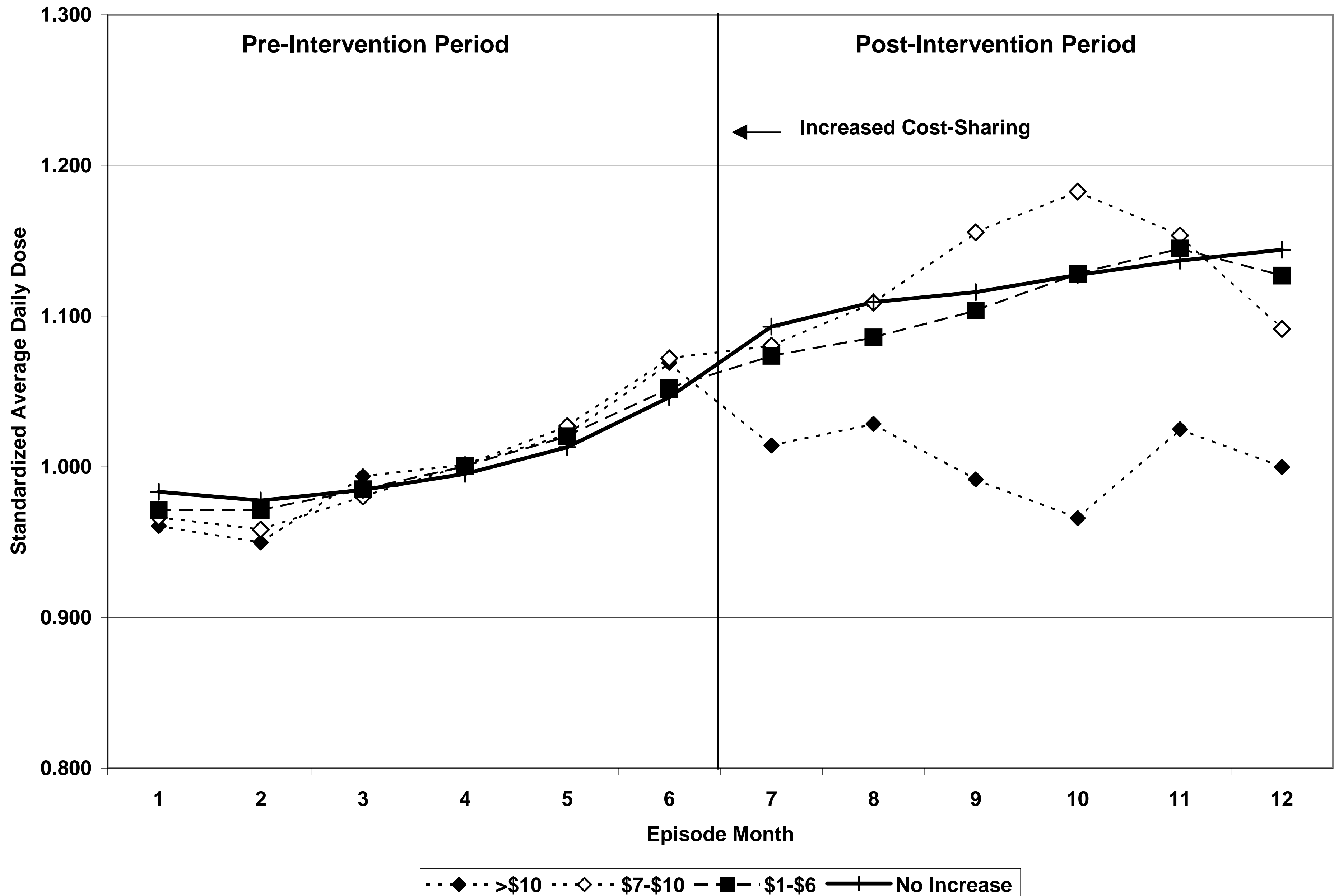
ORIGINAL ARTICLE (Med Care, Oct 2005)

Effect of Increased Cost-Sharing on Oral Hypoglycemic Use in 5 Managed Care Organizations

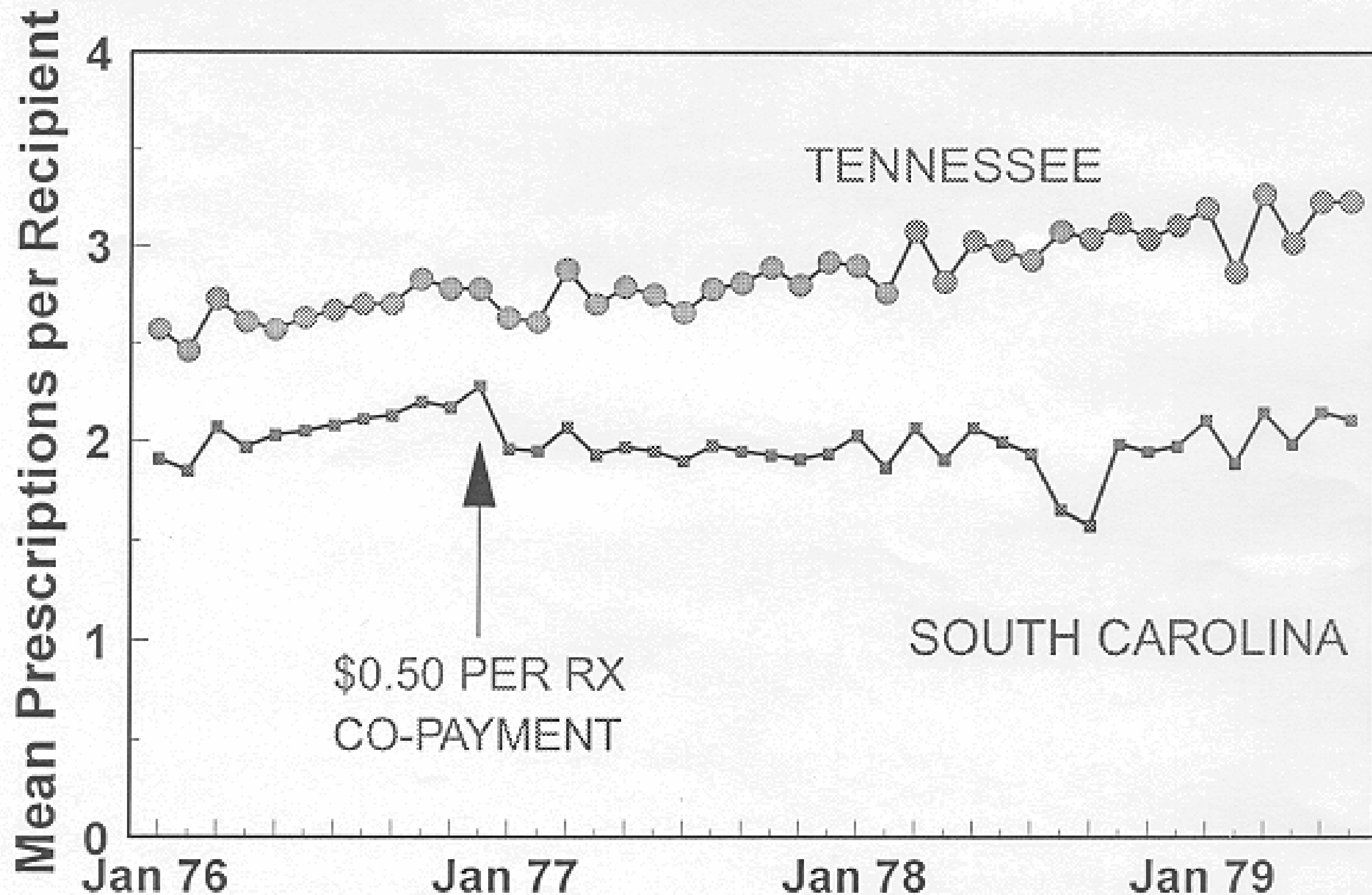
How Much Is Too Much?

Douglas W. Roblin, PhD, Richard Platt, MD, MSc,† Michael J. Goodman, PhD,‡ John T. Hsu, MD, MBA,§ Winnie W. Nelson, PharmD, MS,‡ David H. Smith, PhD,¶ Susan E. Andrade, ScD,‖ and Stephen B. Soumerai, ScD†*

Figure 1. Trends in OH Use Stratified by Level of Increased Cost-sharing ($1-$6, $7-$10, and >$10).

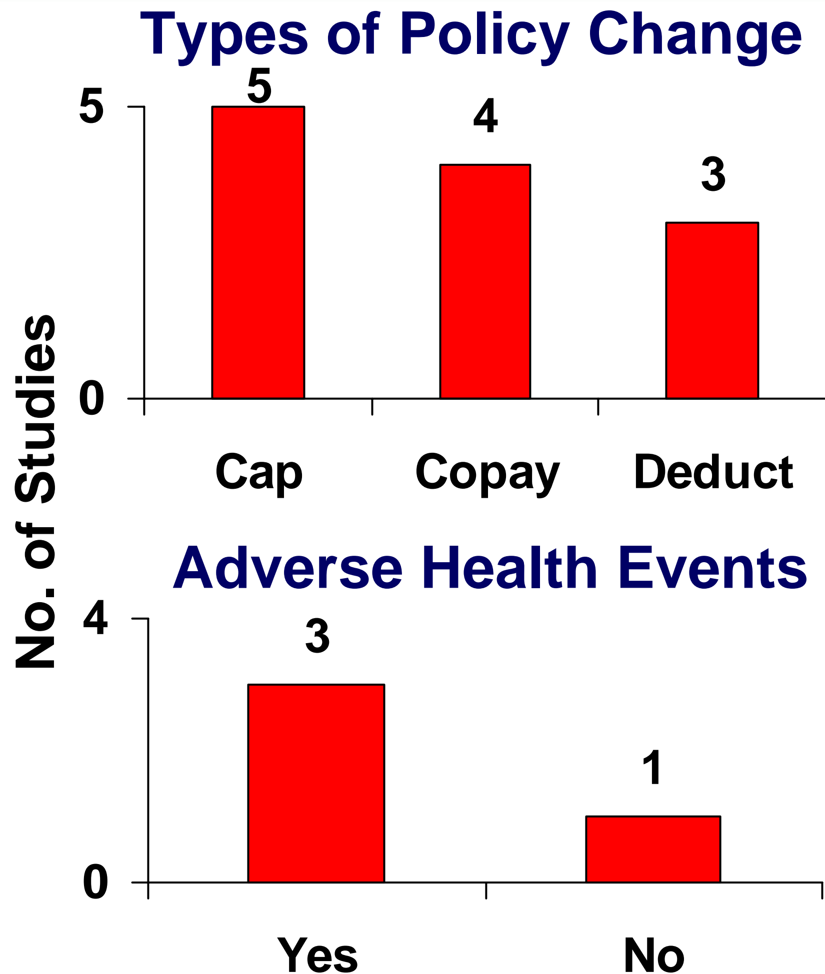


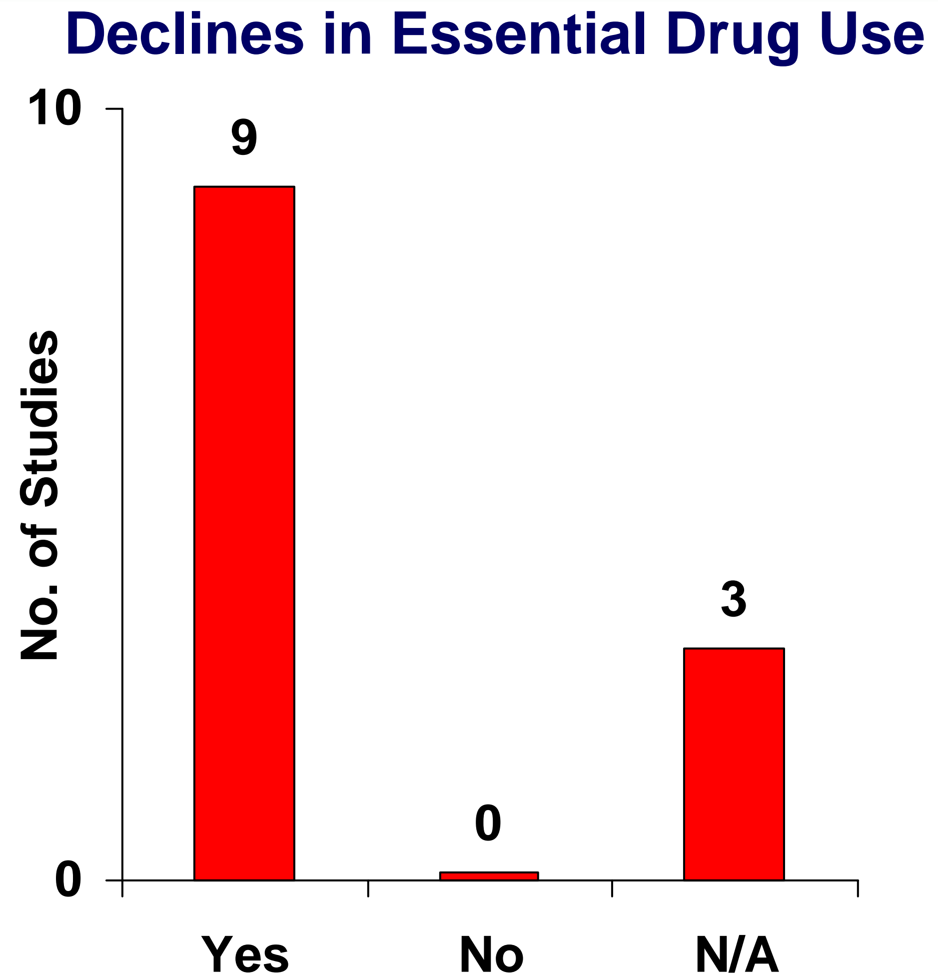
Effect of a $0.50 per Rx Copayment on Medication Use by Medicaid Recipients in South Carolina



Nelson, Reeder & Dickson. Med Care Aug. 1984 p.724

Well-Controlled Studies of Cost-Sharing on Essential Medication Use and Health Outcomes among Poor or Chronically Ill* (N=12 Studies)





Lexchin and Grootendorst, Int J Health Serv, 2004

Policies Promoting "Preferred" Drugs Within a Therapeutic Class

Preferred Drug Lists (PDLs): Common tools to reduce use of expensive "non-preferred" drugs

- Prior authorization (PA) usually required
- Often "fail first" requirement (that an alternative be tried before a non-preferred drug)

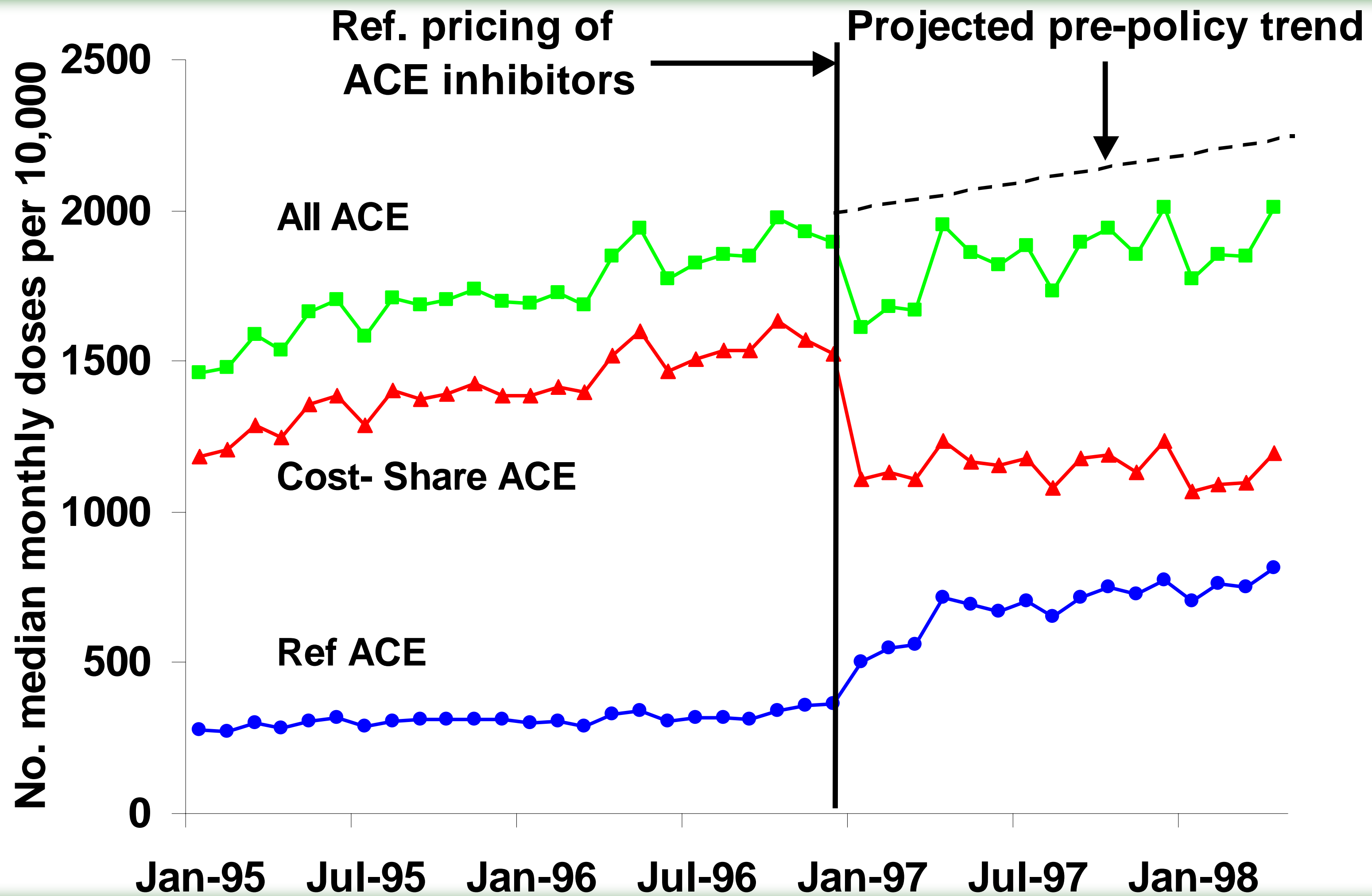
Differential copayments/incentives

- Patients pay higher copays for non-preferred drugs
  - "Three-tier" copays
  - Reference-based pricing

Key Issues In Tiered Copays and Reference Pricing

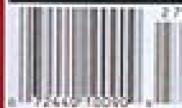
- Differences in clinical response to (or side effects of) “similar” drugs
- Appropriateness of patient response to incentives
- Availability of exemptions
- Effects of medication switching

ACE Inhibitor Use Among Elderly In British Columbia



PILLS FOR THE MIND

How new drugs that treat **MENTAL ILLNESS** are helping people like Kevin Buchberger come out from the darkness



MaineCare Preferred Drug List for Atypical Antipsychotics (7/2003)

Preferred Step Order*:

"Preferred" Atypicals: Fail first

1. Risperidone (Risperdal)

   ↓ **(If Fail)**

2. Ziprasidone (Geodon) or Quetiapine (Seroquel)

   ↓ **(If Fail)**

"Non-preferred" Atypicals: PA

- Olanzapine (Zyprexa) or Aripiprazole (Abilify)

* or PA can be requested to bypass step order

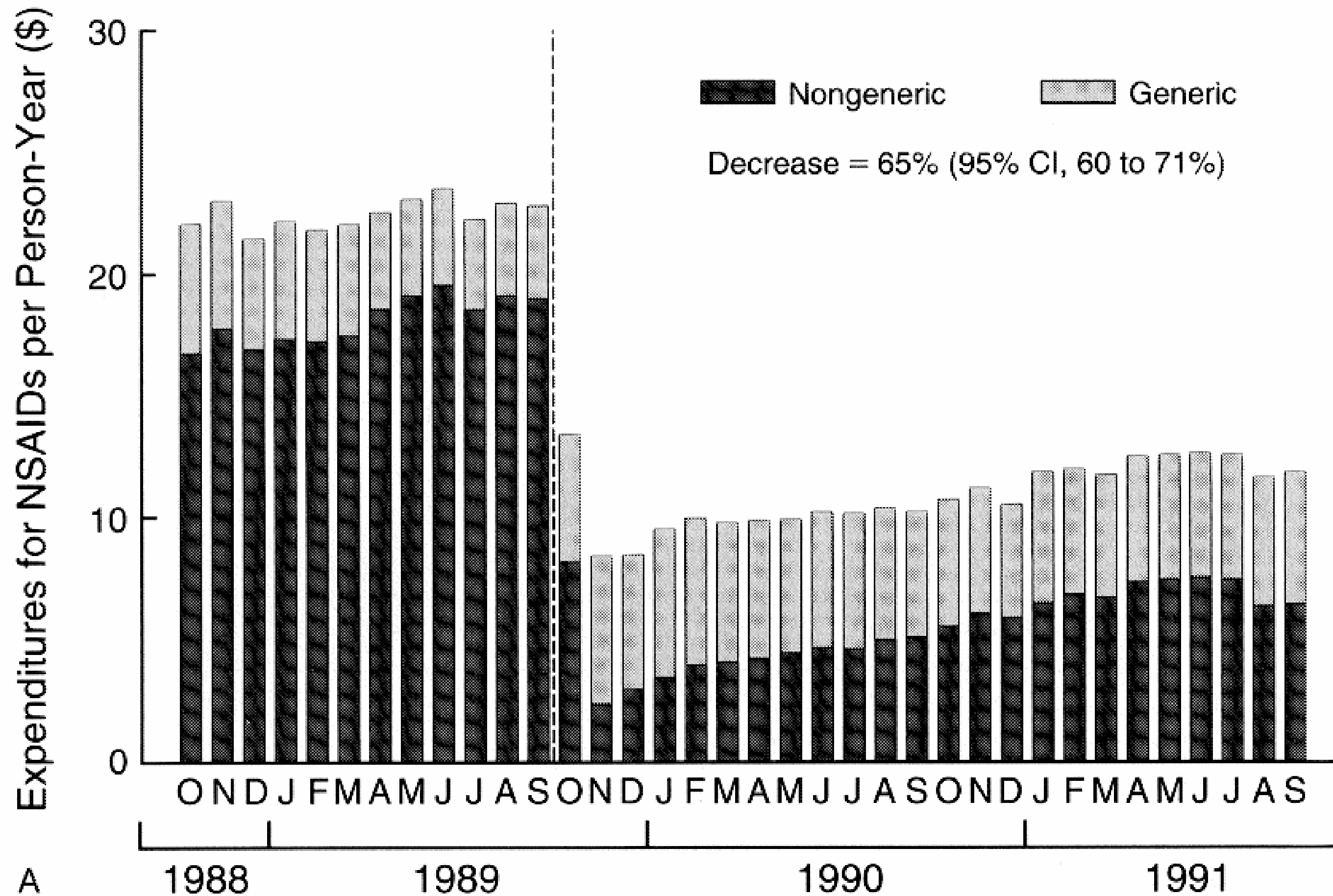
Clinical Anecdote on Maine PDL

"One 26 year old male was stabilized on Seroquel, but the pharmacy rejected his re-fill… because it hadn't been prior authorized. The patient… left without his meds, and didn't tell anyone. After 10 days… he was rehospitalized. He is now homeless and a member of the AMHI class."

"Zyprexa and Seroquel…denied for 50 year old bipolar…. Stable and no hospital or crisis use for over 5 years. Past use of risperidol unsuccessful. MD requested zyprexa and was denied. Requested Seroquel and was denied, too. Client went to crisis unit for the first time in five years."

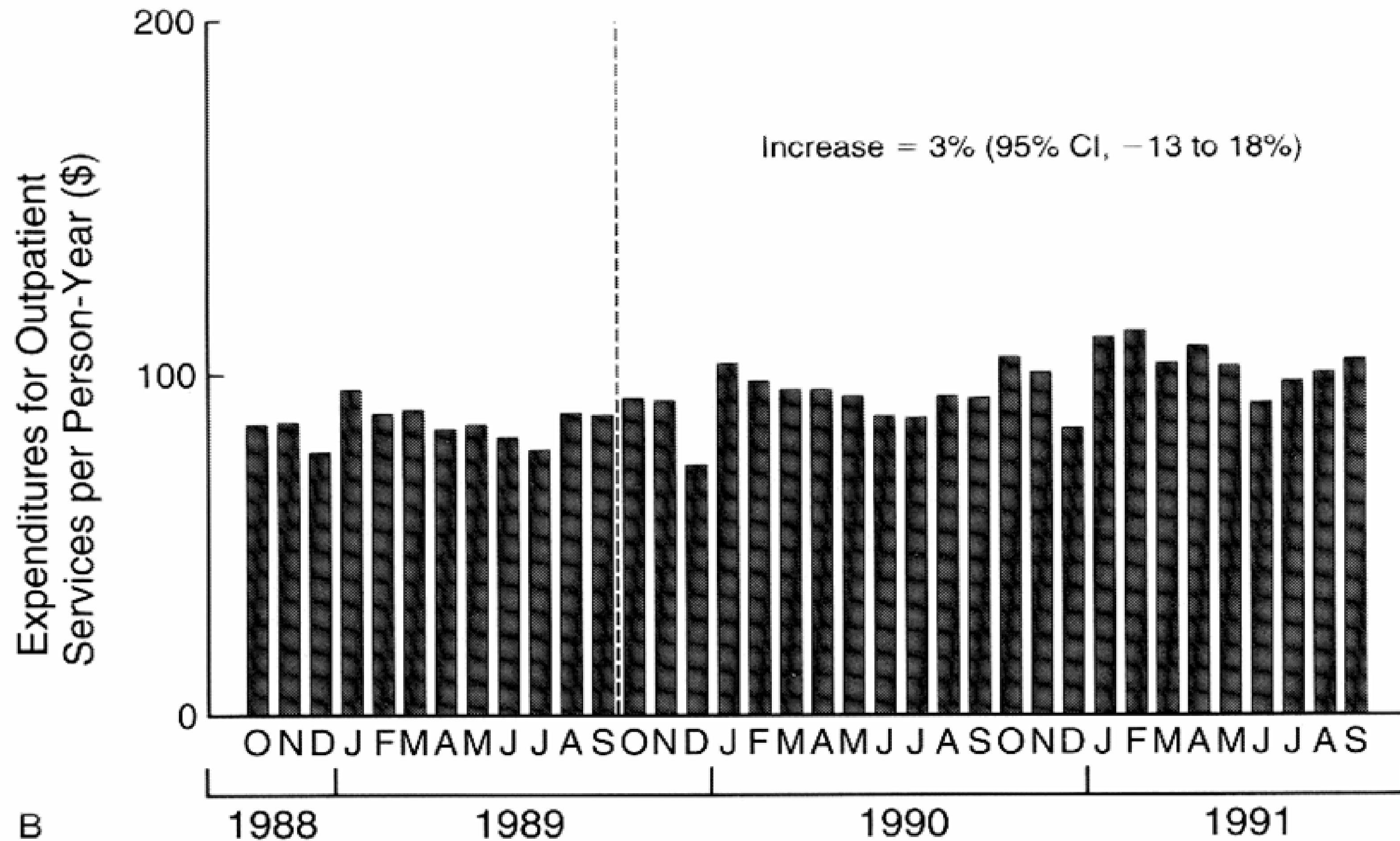
Source: spontaneous physician reports to NAMI

Effects of Medicaid Prior Authorization Policy on Use of Nongeneric and Generic NSAIDs



Smalley WE et al. N Engl J Med 1995; 332:1615

Effects of Prior Authorization for NSAIDs on Expenditures for Outpatient Services



Smalley WE et al. N Engl J Med 1995; 332:1616

Principles for Preferred Drug Lists

- First, measure level of inappropriate use
- Avoid access restrictions for:
  - drugs with heterogeneity in patient response
  - vulnerable populations
    - e.g., schizophrenia, bipolar illness, AIDS, seizure
- Avoid enforced drug switching in well-controlled chronic illness

Principles for Preferred Drug Lists

- Provide multiple preferred agents/choices
- Use simple/rapid prior approval procedures
- Support quality/education as well
- Evaluate quality impact

MEDICARE DRUG BENEFIT

Benefits and Consequences for the Poor and the Disabled

Rachel A. Elliott, Ph.D., Sumit R. Majumdar, M.D., M.P.H., Muriel R. Gillick, M.D., and Stephen B. Soumerai, Sc.D.

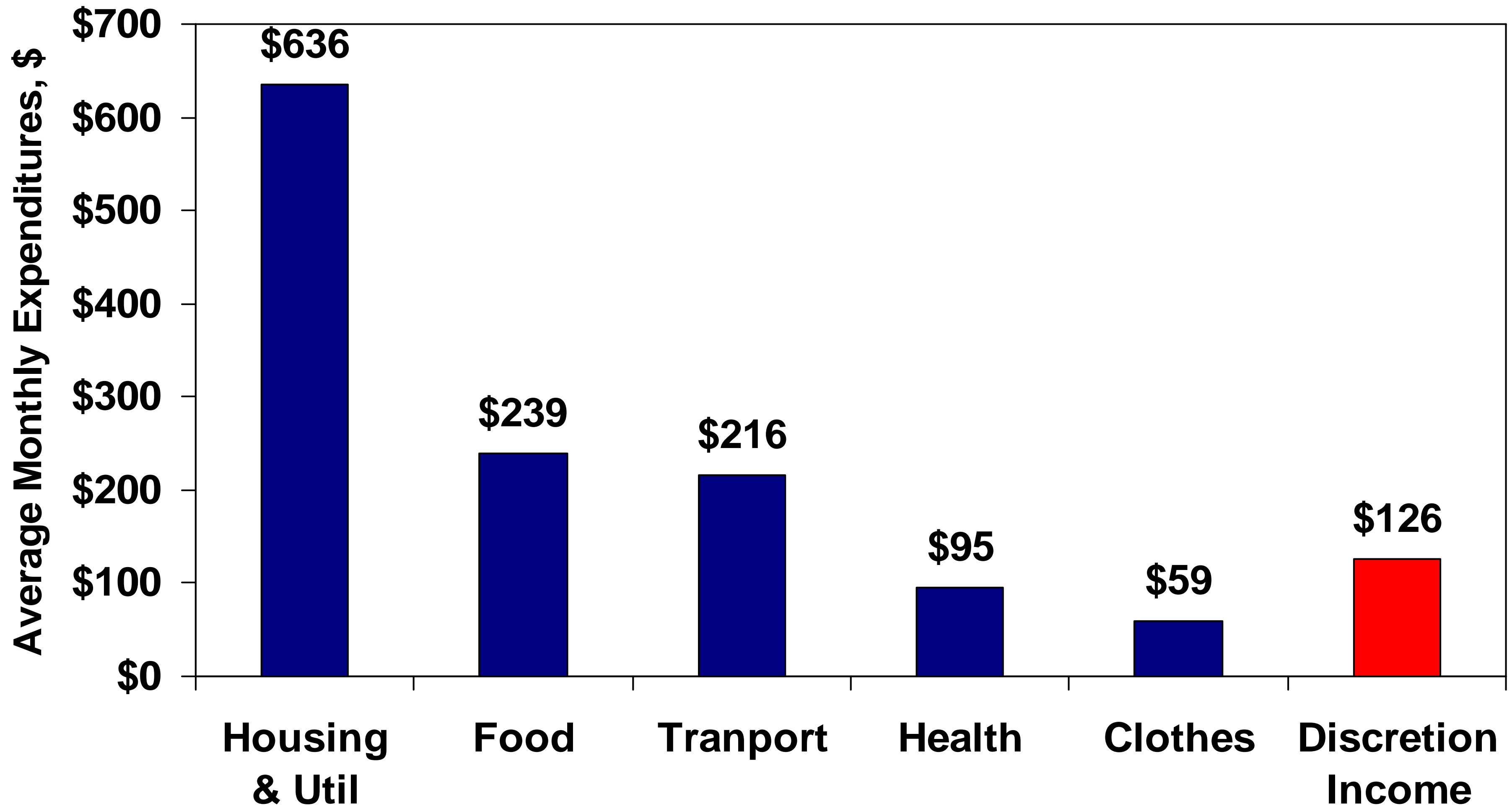
N ENGL J MED 353;26 WWW.NEJM.ORG DECEMBER 29, 2005

Dually Eligible: Poorer, Sicker and Underserved

	Duals	Non-dual Medicare
Fair/Poor Health	83%	57%
Mental Illness	33%	12%
In Nursing Homes	19%	3%
Minority Group	43%	16%

CMS. www.medpac.gov/publications/congressional_reports/Jun04Databook Sec2.pdf

Average Monthly Expenditures for Income Level of $5,000-$9,999



2002 BLS, Consumer Expenditure Survey, Table 2

Increased Cost-Sharing

- Part D
  - $1 to $2 for generics
  - $3to $5 for brands
- Medicaid
  - Zero cost-sharing in 10 states
  - Range of $1-$3 in other states
    - Majority ≤$2

Source: Kaiser Commission on Medicaid and the Uninsured

Formulary Restrictions in Part D

- Plans permitted to restrict coverage to 2 drugs/class
  - "Classes" too broad
    - All newer/older hypoglycemics
    - Assume, often incorrectly, equivalence
- Eliminated coverage of several essential medications
  - Benzodiazepines/barbiturates/meds for substance abuse
- Many plans rely on utilization management w/unknown effects
  - PA/Fail First medication → switches w/ unknown safety

Steps to Maximize Benefits, Reduce Risks

- Educate Rxers re: intra-class variation
  - Effectiveness and side effects
  - Reduce risks of medication switches
- Make Part D data available to researchers/ policymakers
- Commission studies of health/econ effects
  - Changes in cost-sharing
  - Formulary restrictions
- Modify policies leading to underuse/adverse events