

Measuring the Health Effects of Health Care Reform

Jonathan Skinner

Department of Economics, Dartmouth College
The Dartmouth Institute for Health Policy and Clinical Practice,
Dartmouth Medical School

jon.skinner@dartmouth.edu

October 2011

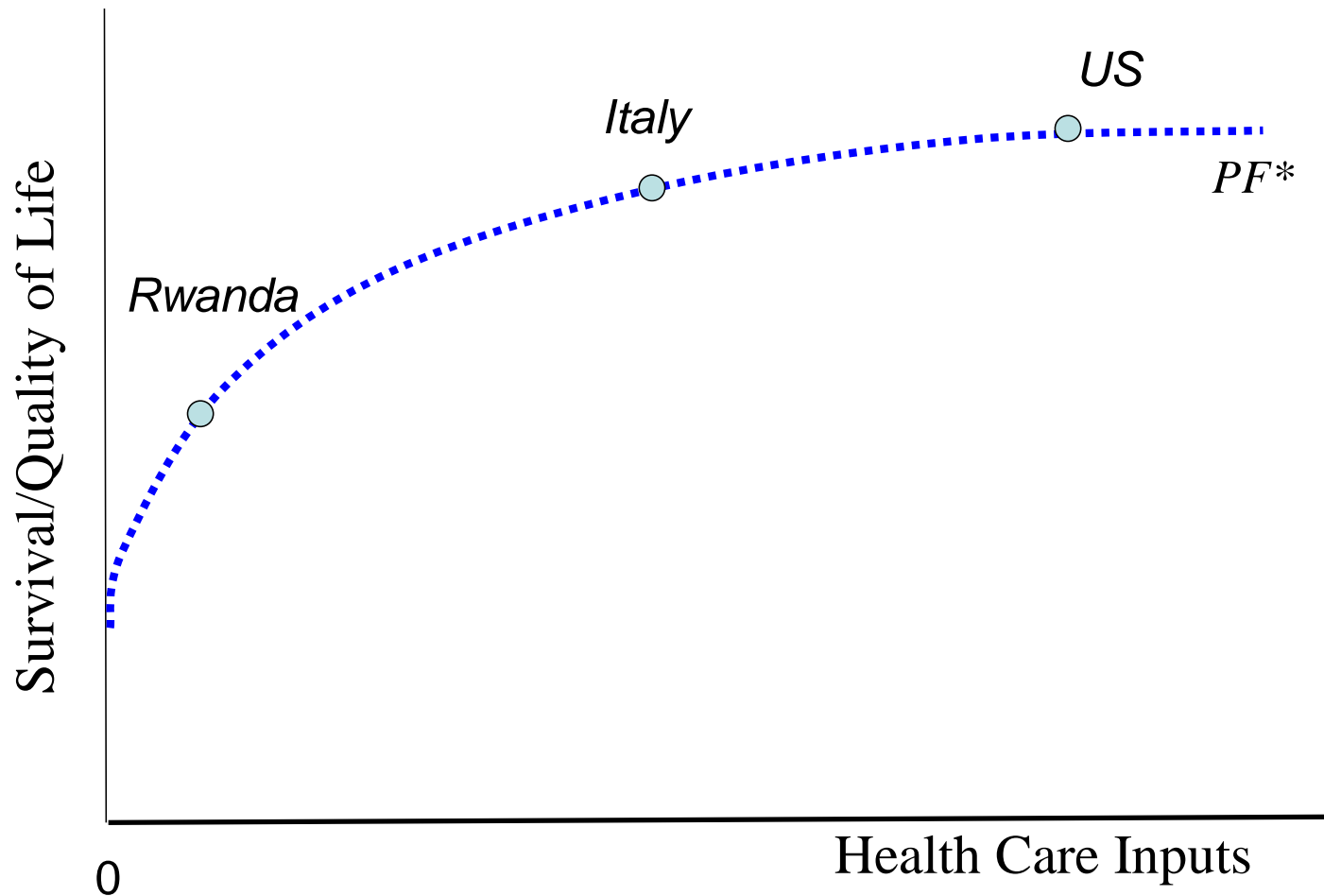
This presentation is based on J. Skinner and C. Suarez, "Measuring the Health Effects of Health Care Reform in Advanced and Emerging Countries", 2011



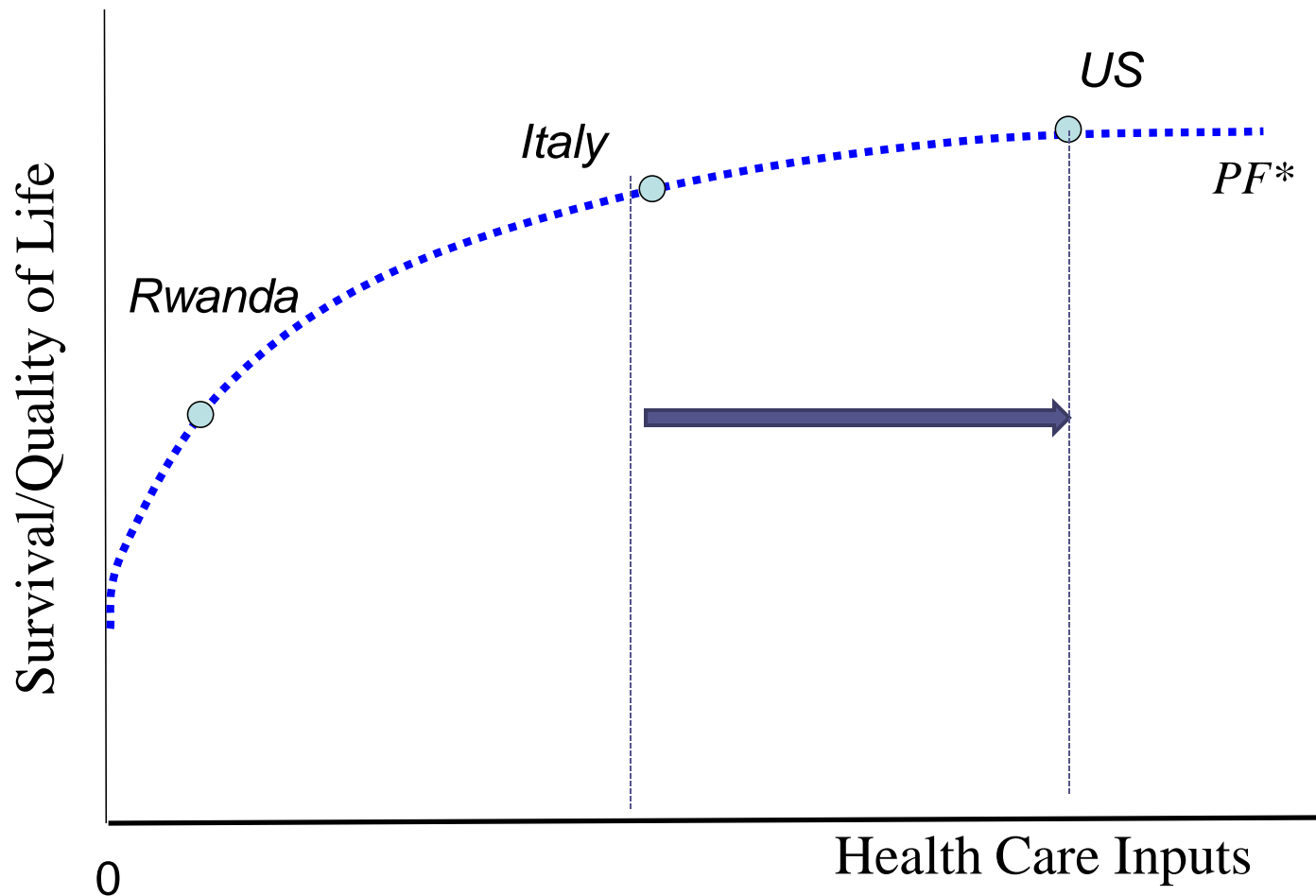
The Context: Rising projected health care costs in all countries

- **Question 1: Which kinds of reforms are most successful at cutting costs in health care?**
 - See Clement et al. IMF Report (2010)
- **Question 2: How do these reforms affect health outcomes?**

The health care production frontier



Allocative inefficiency: Extra spending on health care may not be worth it



The Washington Post

\$93,000 cancer drug: How much is a life worth?

By MARILYNN MARCHIONE

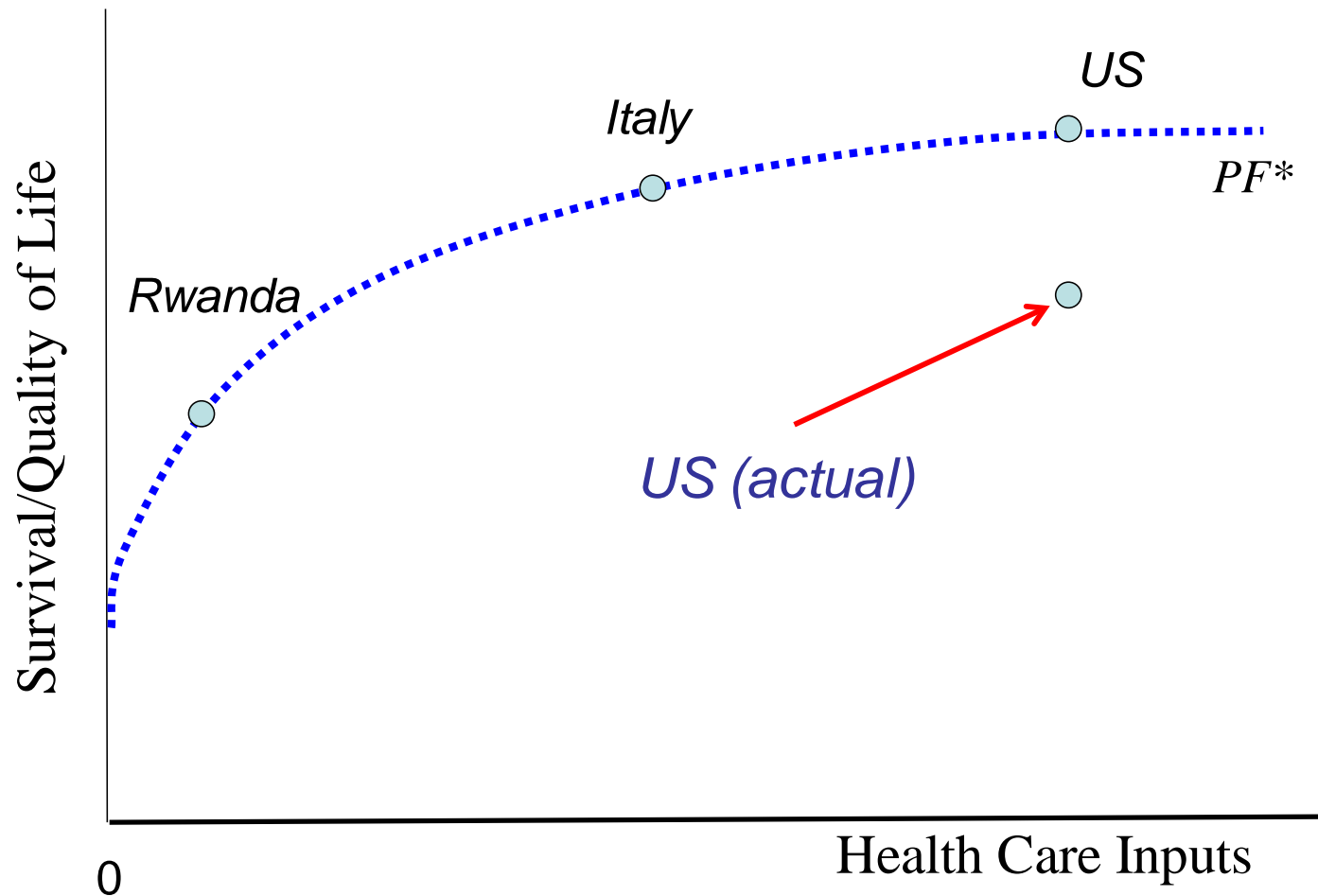
The Associated Press

Monday, September 27, 2010; 12:01 AM

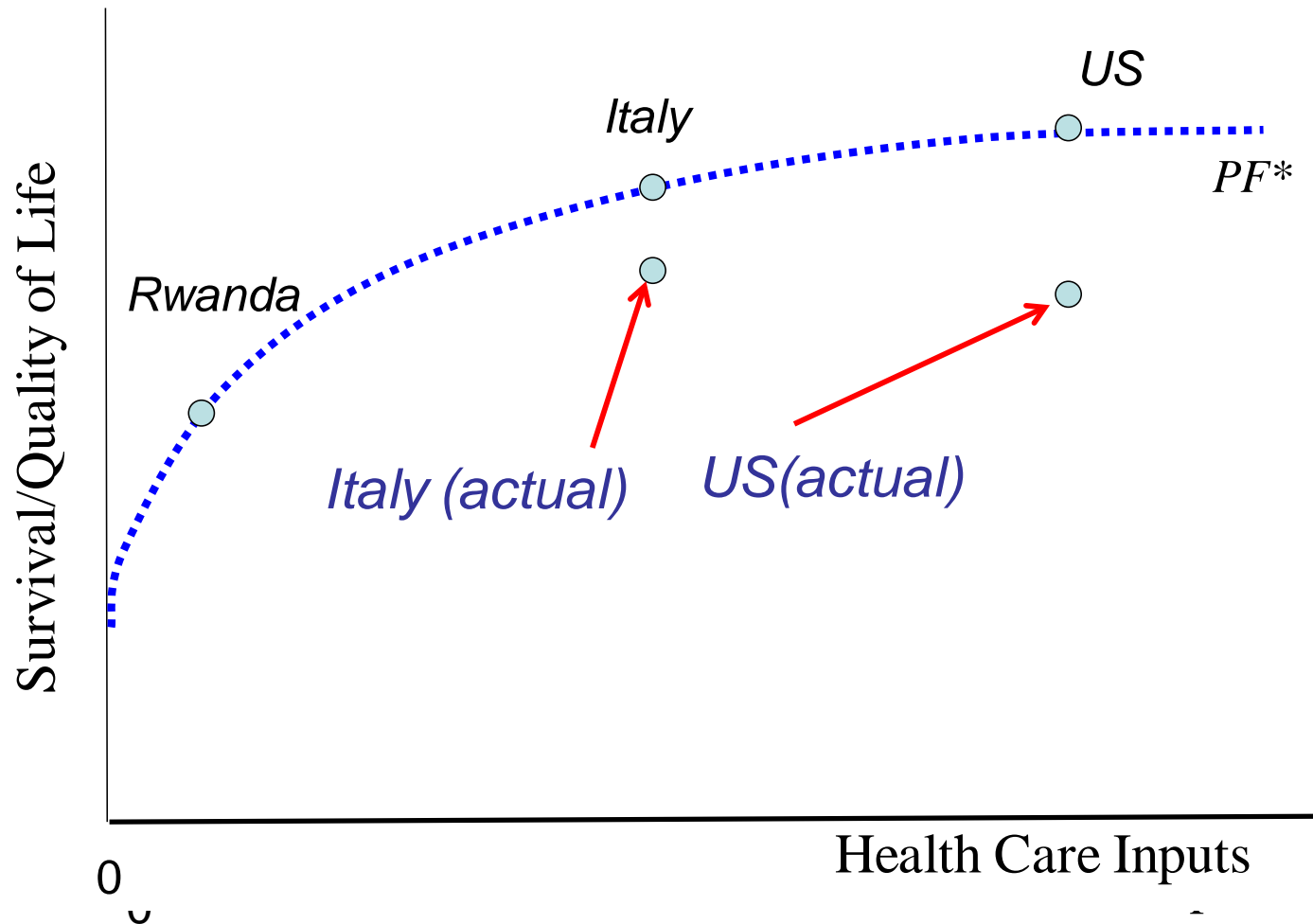
BOSTON -- Cancer patients, brace yourselves. Many new drug treatments cost nearly \$100,000 a year, sparking fresh debate about how much a few months more of life is worth. The latest is Provenge, a first-of-a-kind therapy approved in April. It costs \$93,000 and adds four months' survival, on average, for men with incurable prostate tumors. Bob Svensson is honest about why he got it: insurance paid.

"I would not spend that money," because the benefit doesn't seem worth it, says Svensson, 80, a former corporate finance officer from Bedford, Mass.

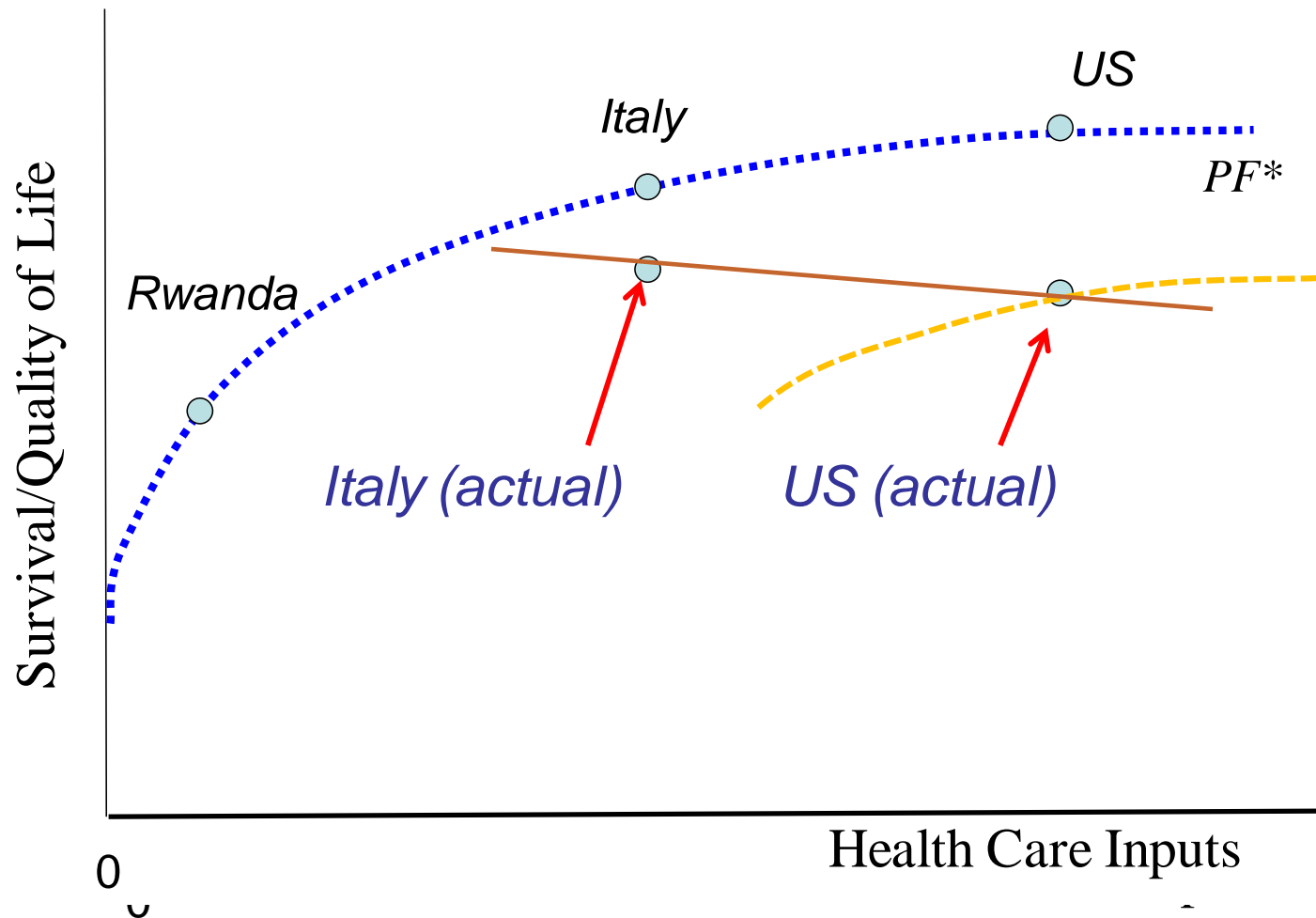
Productive inefficiency - producing less health at the same cost



All Countries Exhibit Inefficiency



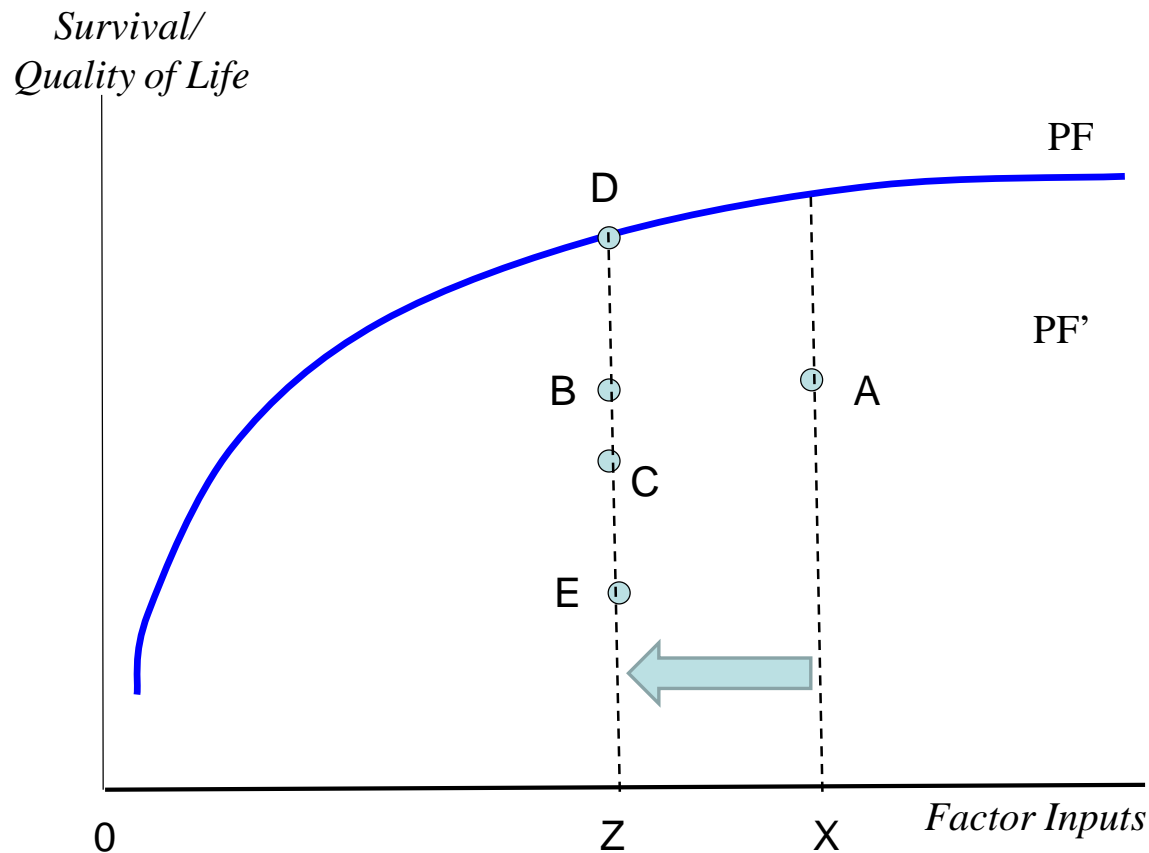
Often Little Association Between Spending and Outcomes



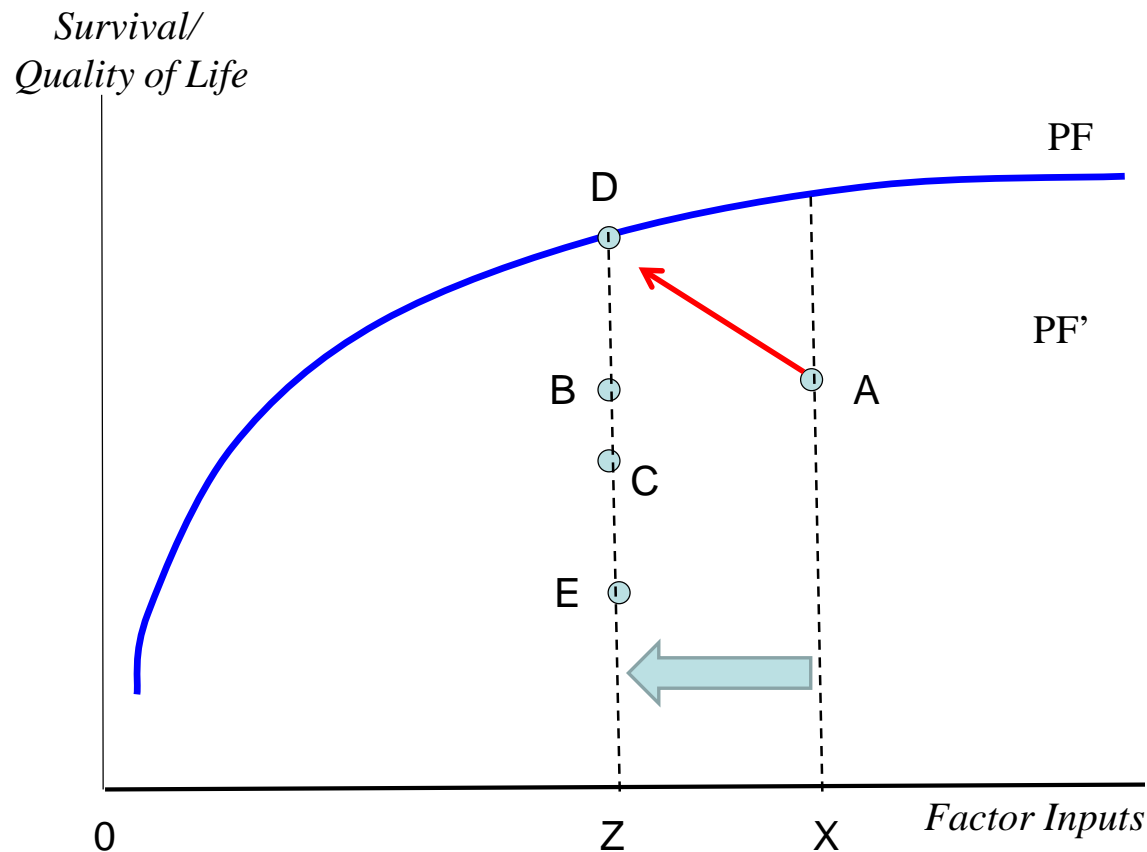
Productive Inefficiency Even in Emerging Economies

“Less than 60% of pneumonia cases were treated with an appropriate antibiotic, and more than half of all cases of upper respiratory tract infection received antibiotics, most of them unnecessarily. Less than 60% of children with diarrhoea received oral rehydration therapy, and more than 40% received antibiotics, again mostly unnecessarily.”

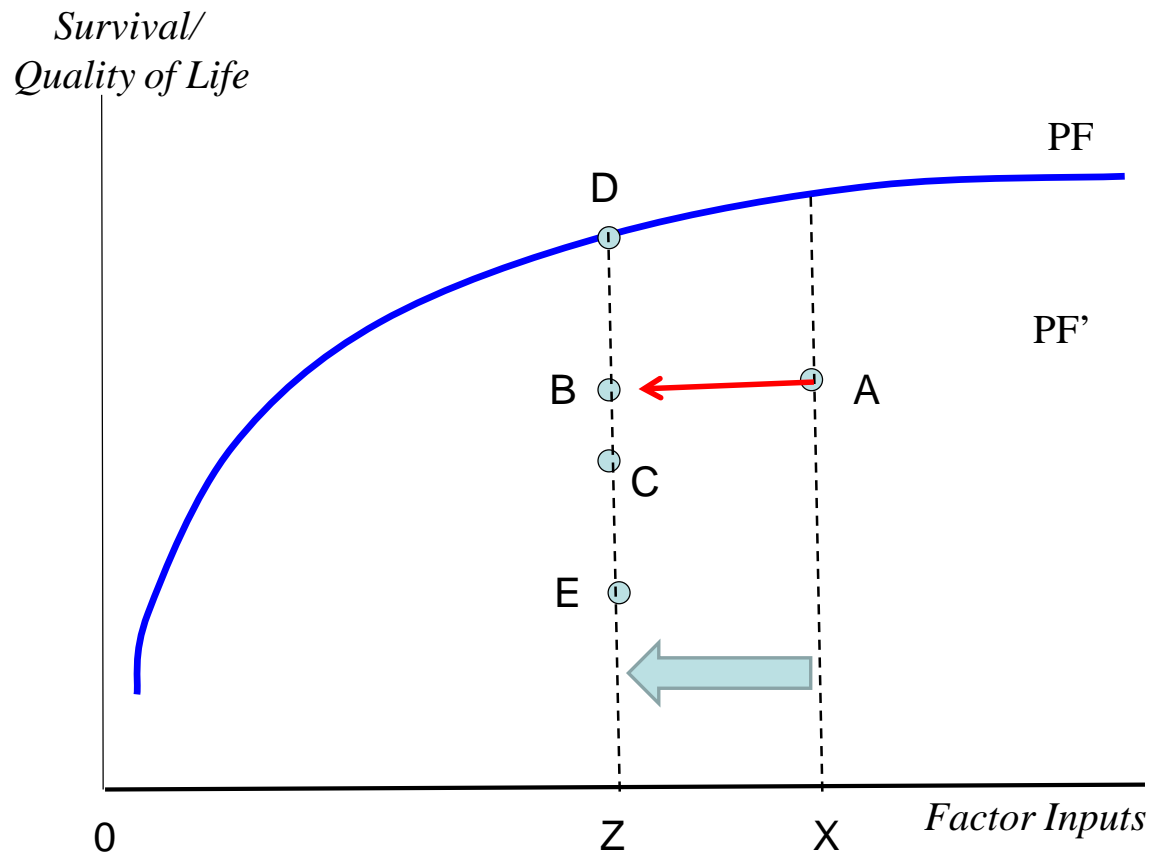
Many Possible Health Effects of Health Care Reform



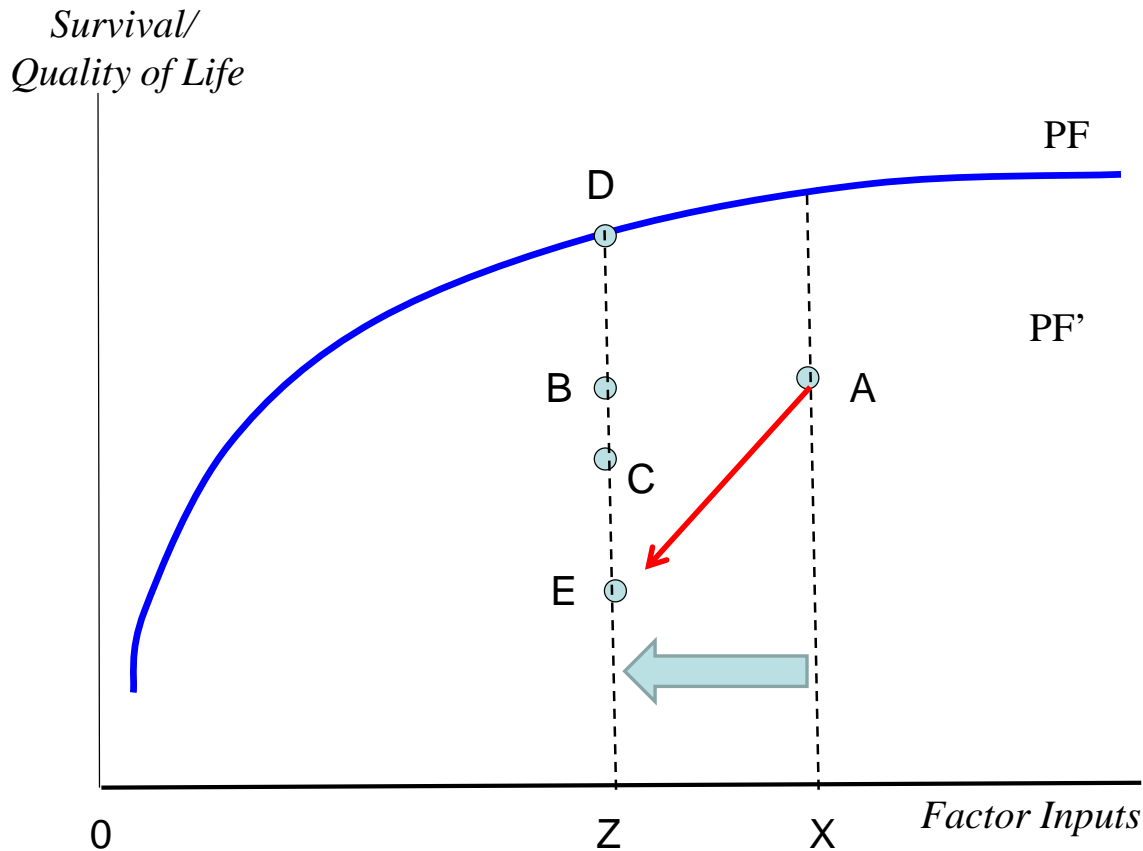
If Reform Leads to Total Factor Productivity Growth - better health



No Loss in Aggregate Health → Improved Productivity

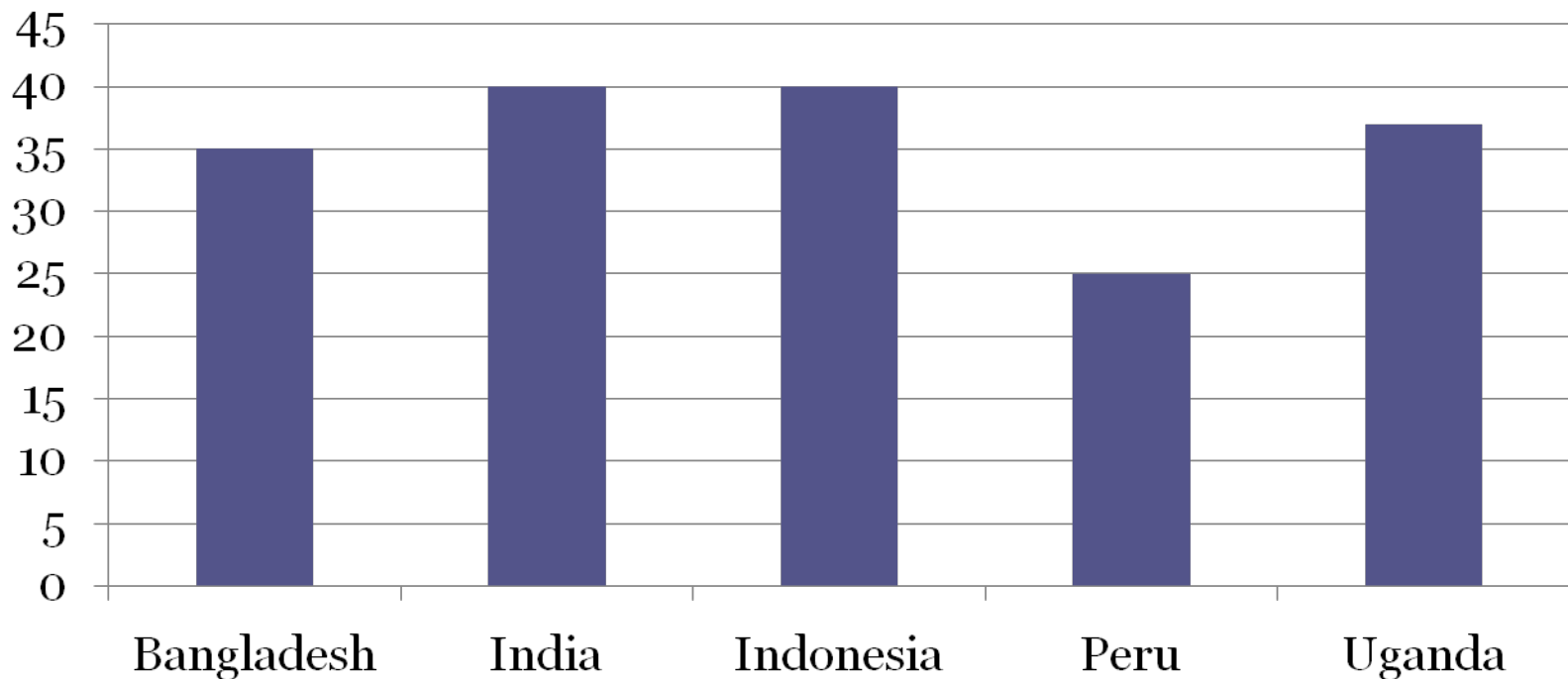


The Real Worry - A Collapse of the Most Valuable Health Care Services



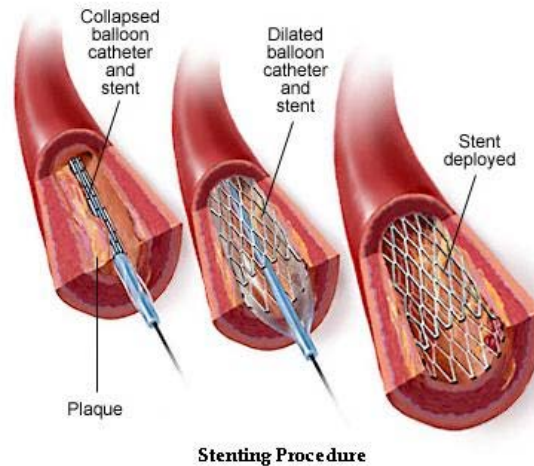
Example of Productivity Loss: Wage Cuts Lead to Increased Absentee Health Workers

Percentage of Absent Health Workers



Chaudhury, et al *J Econ Perspectives* 20(1) 2006

Health outcomes depend critically on *how* the money is spent



Category II: Heterogeneous productivity (stents)

Category I: high productivity (bed nets against malaria)

Category III: unknown or poor productivity (robotic surgery)

Source: Chandra A and Skinner J, JEL (forthcoming)

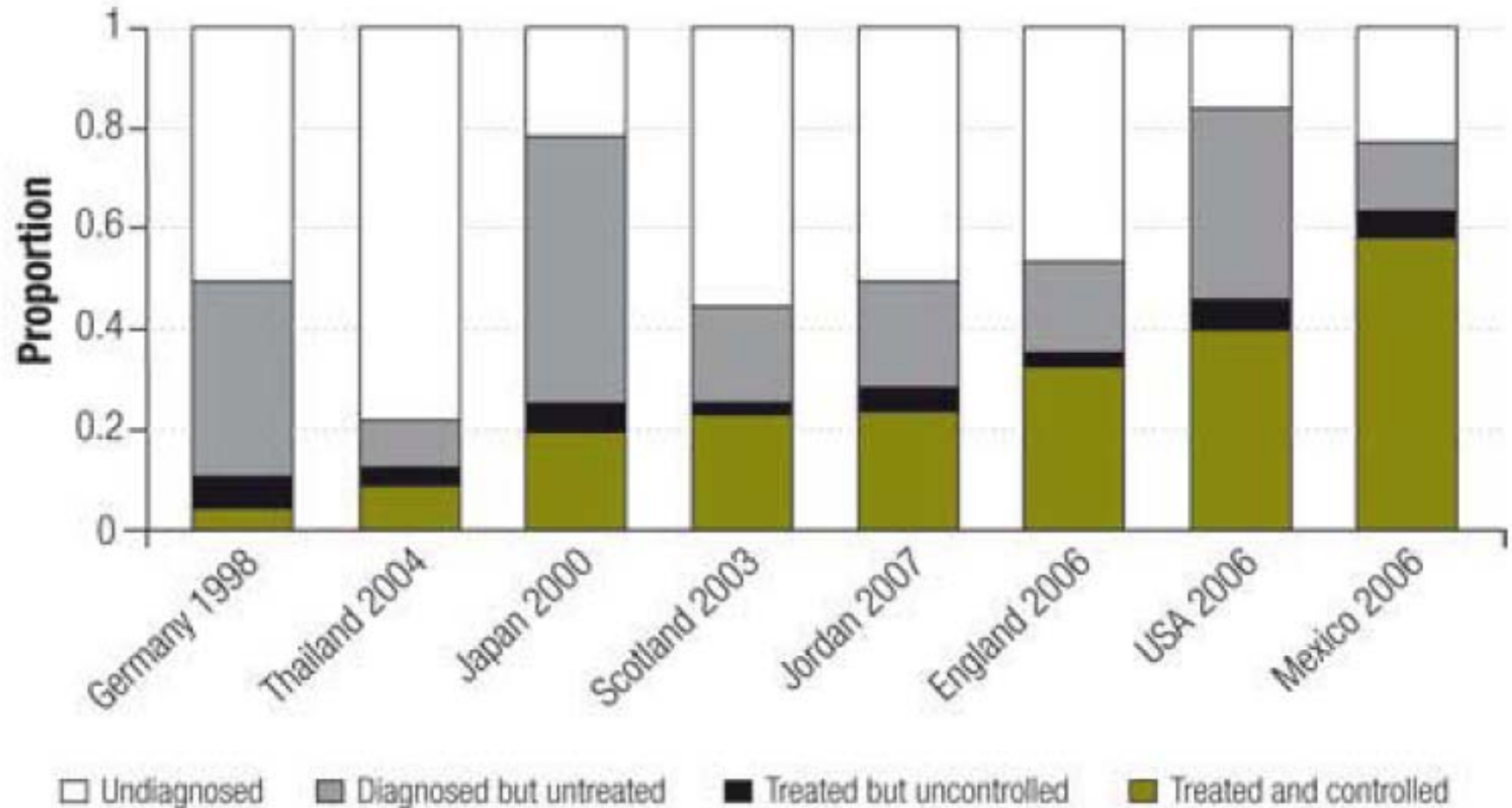


The obvious question:



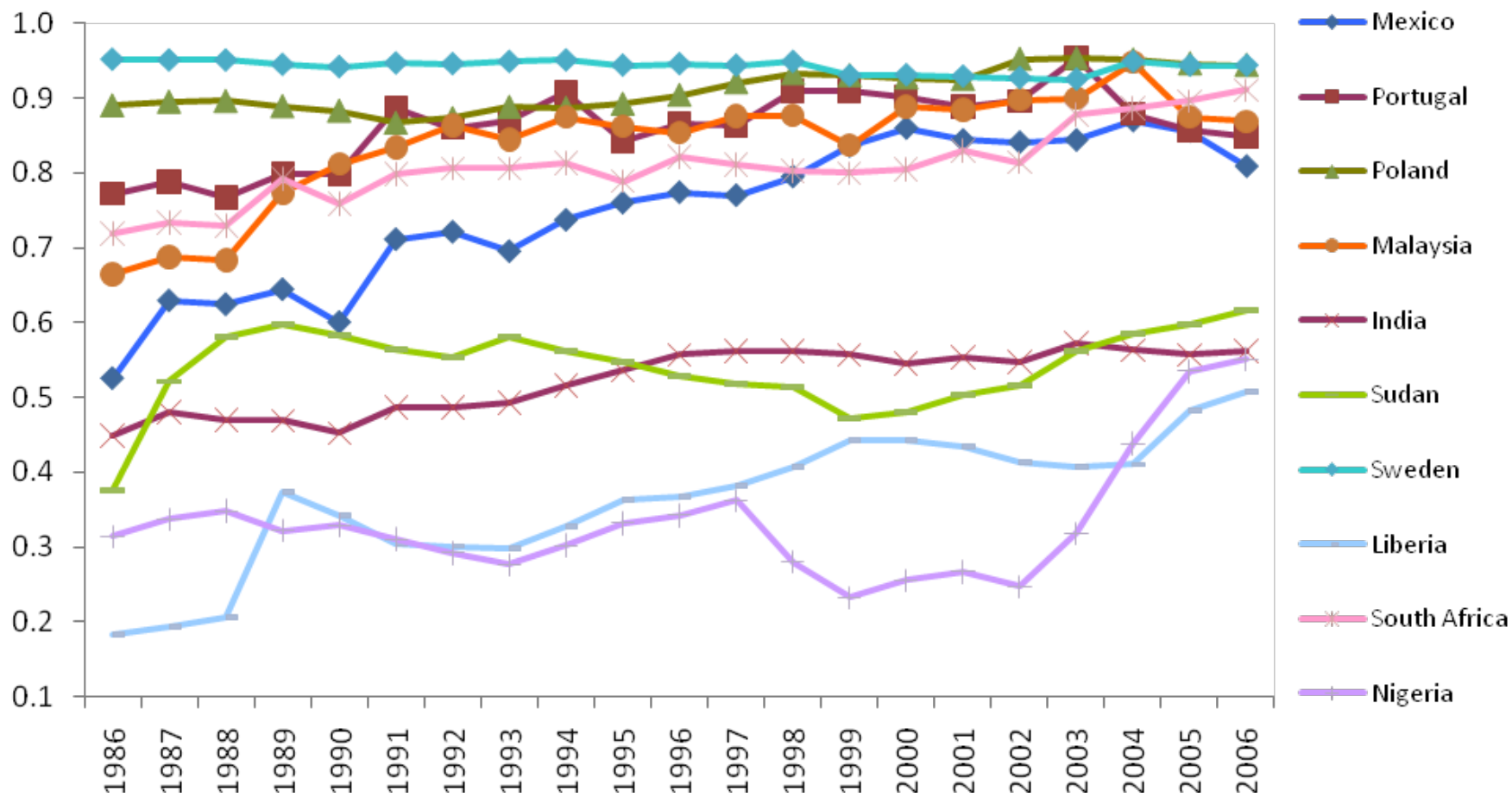
- How can we monitor health system performance – an “early warning system,” as it were, to guard against a collapse in Category I productivity as budgets are pared?

Measure, measure, measure: Elevated cholesterol treatment rates by country



Roth GA, et al., *Bulletin of the World Health Organization* 2011;89:92-101.

DPT3 Shots (Fraction) by Country and Year



Source: IHME, 2010

Summary

- The health budget is not a “summary statistic” of overall health efforts
- *How* the money is spent – and productivity within the health care system – can matter more than *how much* is spent
- Should “early warning” monitoring of (e.g.) child health and immunization become the standard?