

# **Frequent ED Users: Separating Fact from Fiction**

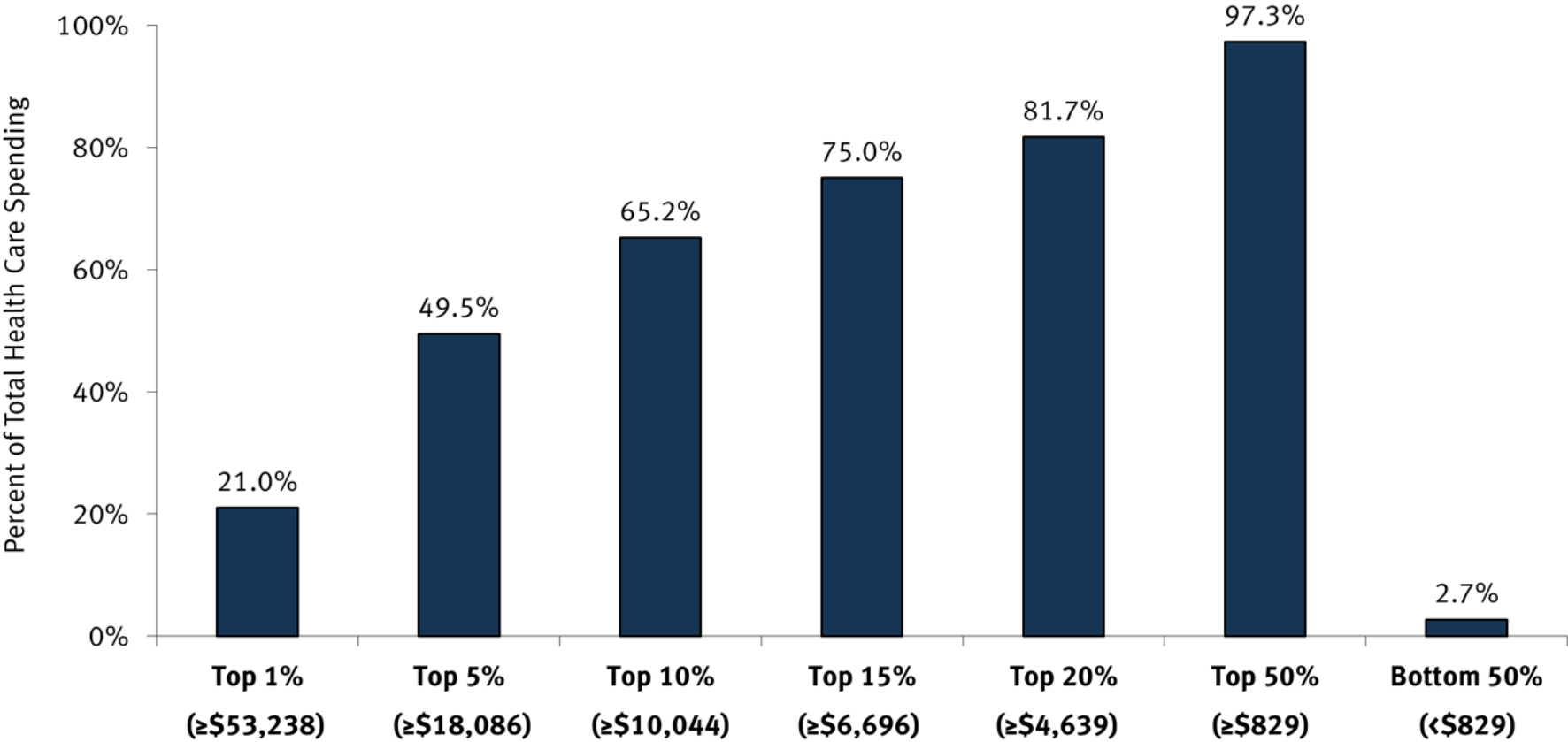
**Maria Raven and Hemal Kanzaria**

**KP/GW Health Policy Elective  
October 23, 2018**

# Background

- Policy makers are seeking to reduce ED use, especially within Medicaid
- Perception that ED use is
  - Avoidable
  - Primary-care sensitive
  - Unnecessary
  - Costly

# Concentration of Health Care Spending in the U.S. Population, 2010



**Percent of Population, Ranked by Health Care Spending**

NOTE: Dollar amounts in parentheses are the annual expenses per person in each percentile. Population is the civilian noninstitutionalized population, including those without any health care spending. Health care spending is total payments from all sources (including direct payments from individuals and families, private insurance, Medicare, Medicaid, and miscellaneous other sources) to hospitals, physicians, other providers (including dental care), and pharmacies; health insurance premiums are not included.

SOURCE: Kaiser Family Foundation calculations using data from U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey (MEPS), Household Component, 2010.



# Background

- Payers have attempted to limit ED use by
  - Implementing copayment policies
  - Nurse Advice Lines
  - Educating patients about when to use the ED
  - Refusing to pay for visits deemed unnecessary
  - Implementing ED visit reduction programs

# How have efforts panned out?

- Co-payment policies
  - Reduce necessary **and** unnecessary care
- Nurse Advice lines
  - Don't consistently work for this purpose
- Refusing to pay for 'unnecessary' visits
  - Not possible
- ED visit reduction programs
  - Case management + primary care referral commonly attempted with limited evidence

# Background

- Annual ED use continues to increase
- Often, attributed to Medicaid beneficiaries<sup>1</sup>
- Yet many individuals who visit the ED (even frequent ED users) have PCPs and private/commercial insurance

1 Tang, N et al. Trends and Characteristics of US Emergency Departments, 1997-2007, JAMA

# What is behind the increased use of EDs?



# Barriers to Reduce ED use

- EDs are open 24-7
- Agnostic to insurance status
- One-stop shopping
- Outpatient provider referrals into the ED
- Lack of community-based services
  - mental health, substance use, primary care, housing and other social determinants of health



# Case 1: The “non-emergent” visit

- 22 year old female
- 10 pm
- Pain and burning with urination
- Should she be in the ED?

# Case 2: The provider referral

- 25 year old male, otherwise healthy
- Sent in by doctor
- Concern for possible appendicitis

# Case 3: The other kind of referral

- 62 year old F
- Drove in 5 hours from central valley
- Her PCP ordered an outpatient head CT after patient reported weeks of a headache
- The CT is suspicious for a brain mass

# A PRIMARY CARE CRISIS

**60 million Americans**

lack adequate access to primary care.

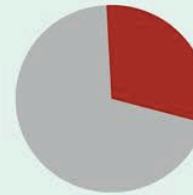


That's more than the populations of New York, Ohio, North Carolina, and Florida **combined**.

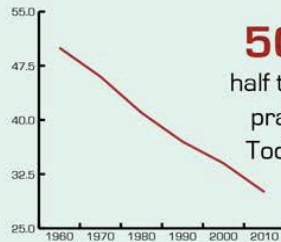


**1 in 5**

sick people visit the ER for care they could have received from a primary care provider.



**Only 30%** of America's doctors practice primary care.



**50 years ago**, half the doctors in America practiced primary care. Today, fewer than one in three do.



Amount of time per day it would take a primary care physician working in a traditional model of care delivery to provide an average panel of patients with the acute, chronic, and preventive care they need



Chronic diseases account for



**75 cents**



of every dollar spent on health care in America.



**128**

of the 750 institutions that sponsor residency programs produce no primary care graduates at all.



Each stethoscope icon is equal to ten medical schools



The public cost of educating every medical resident

# ED use and primary care expansion: unanswered questions

- Primary care expansion/redistribution likely to have positive impact on delivery system
- Definition of primary care “expansion” is varied
- Unclear if expanded primary care can be provided at low cost compared to ED
  - Hours of care, patient self-selection
- Effect on ED use remains unclear

# ED use and primary care expansion: unanswered questions

- Effect of expansion on ED use unclear
- Increased referrals to ED by outpatient providers<sup>1</sup>
  - Hospital admission
  - Acute management and testing
  - After hours care
  - Observation in effort to avoid admission

<sup>1</sup>RAND Report: The Evolving Role of EDs in the United States

- How would you describe patients who use the ED frequently (e.g., the frequent fliers)?

# Urban Legend

- Frequent ED users:
  - Are a costly drain on the health care system
  - Do not access primary care
  - Visit the ED for
    - Conditions that could easily be treated elsewhere
    - Substance use and mental health complaints



# Findings Dispel Urban Legend

- ED use contributed to 2.1% of overall Medicaid spending, 4.6% for ultra-high ED users
- Rates of chronic disease and hospitalizations increased with frequent ED use
  - Most visits not related to mental health/substance use
- Frequent ED users are accessing primary care and many other health services

# Case 4: The Frequent ED User

- 81 year old F
- Recent admission for CHF, discharged 10-days ago
- One month prior, had ICU admission for PNA
- Fell at home yesterday and again today, outpatient provider has an order in for home health
- (NB: No advance directives)

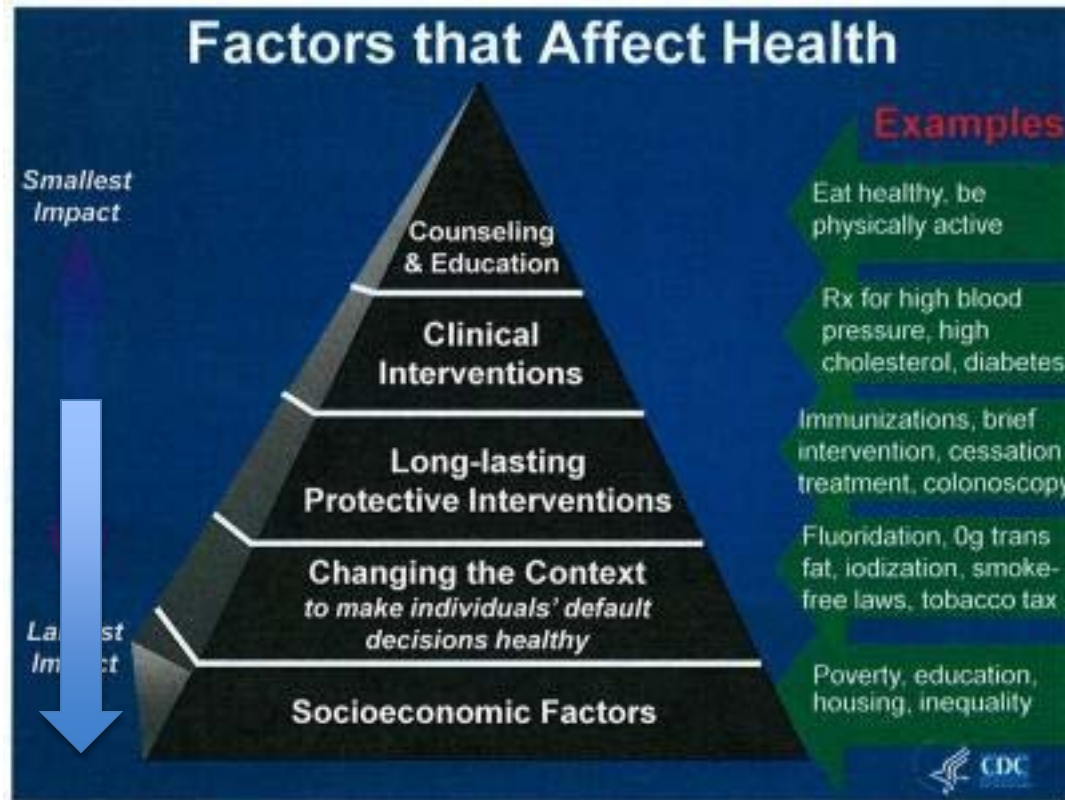
# Programs aimed at high-risk populations

- Many programs reported reductions in ED use
  - Little evidence to support program effectiveness based on program costs, quality, and overall health services use
- Permanent supportive housing and intensive case management most promising
  - Reported savings from annual ED visit reductions: \$4-\$704
  - Generally insufficient to cover program costs
- Savings often from reduced hospitalizations, not ED visits

# Case 5: Another Frequent ED user

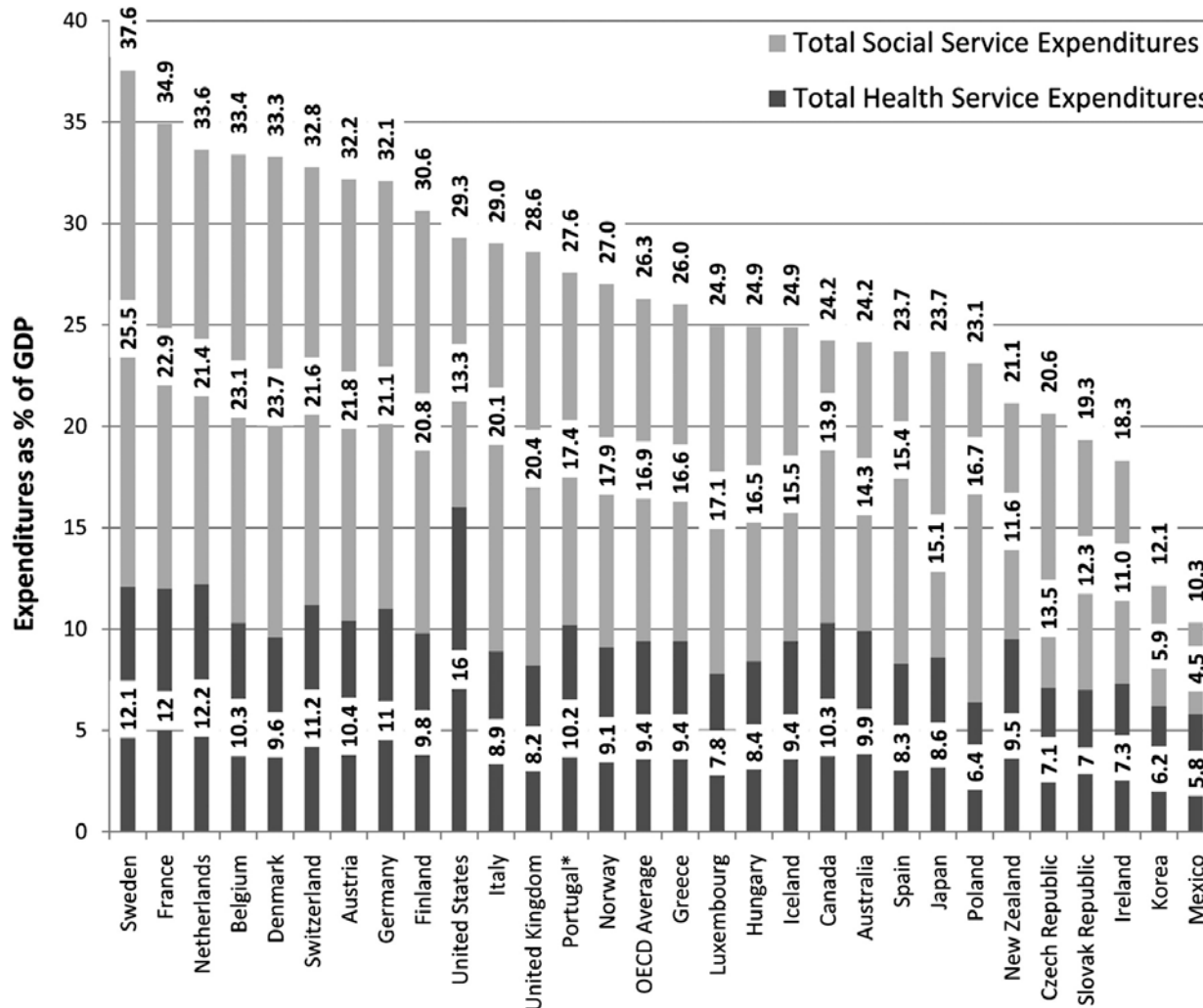
- 52 year old male
- Frequent visits for alcohol intoxication
- Brought in by ambulance having been “found down” on the street
- Homeless, last visit was 2 days ago

- What factors affect health?
- What makes us sick?



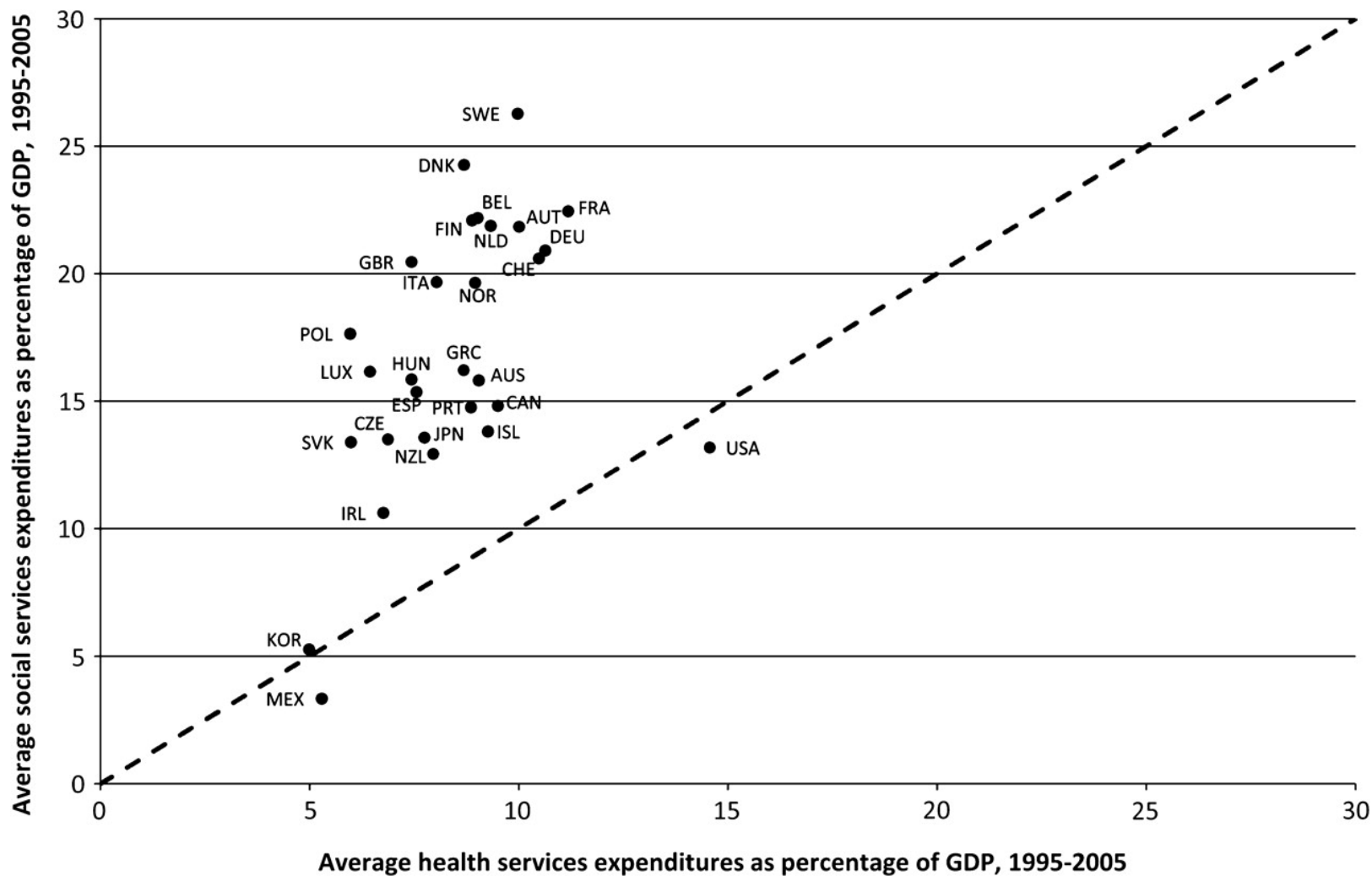
- 10% of one's overall health is affected by *healthcare*
- $\geq 70\%$  of one's overall health is related to social, economic, and environmental influences

# Total health-service and social-services expenditures for Organization for Economic Co-operation and Development (OECD) countries, 2005.



Elizabeth H Bradley et al. *BMJ Qual Saf* 2011;20:826-831

# Average social-services expenditures versus average health-services expenditures as percentages of gross domestic product (GDP) from 1995 to 2005, by country.

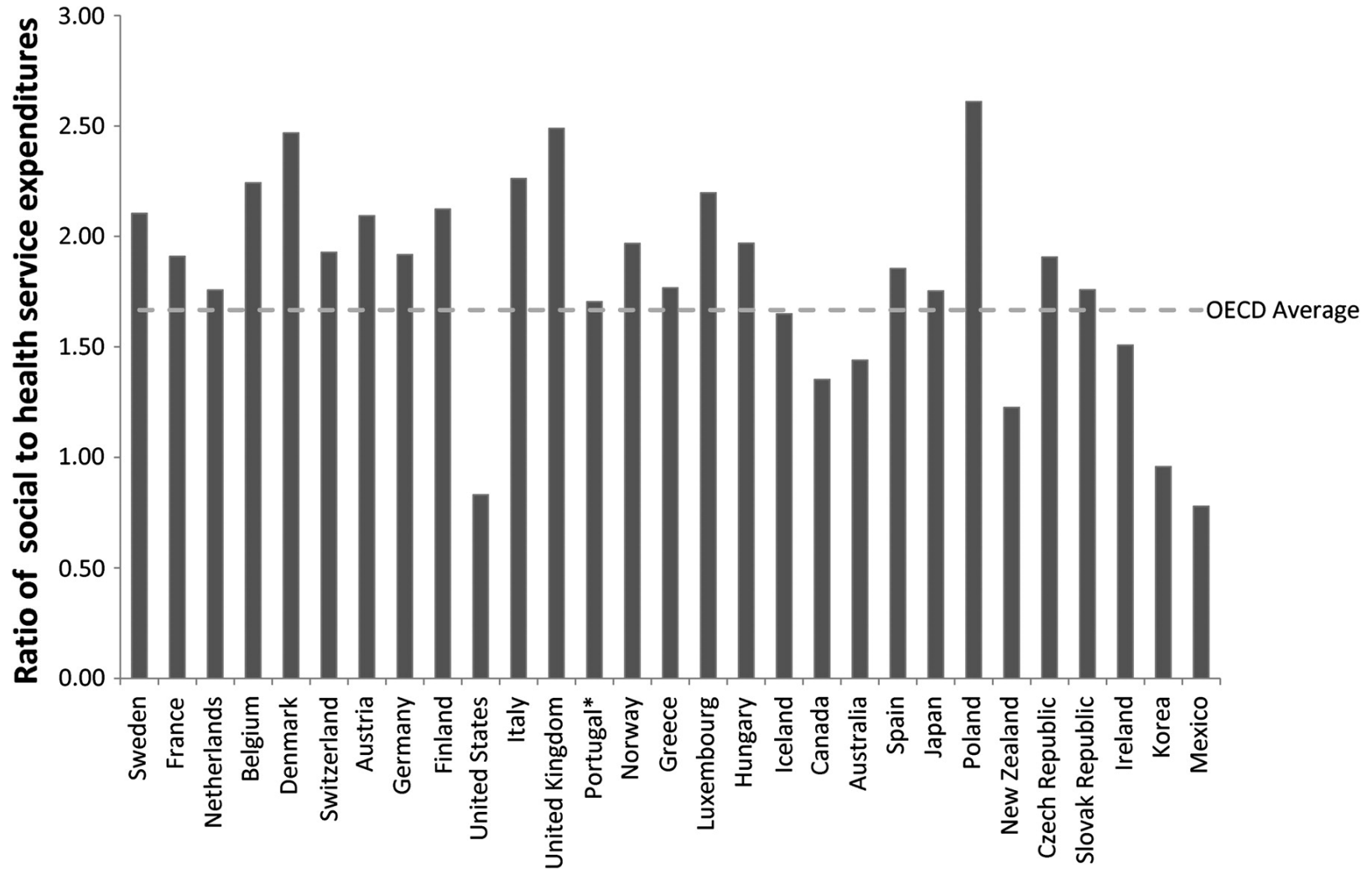


Elizabeth H Bradley et al. *BMJ Qual Saf* 2011;20:826-831





## Ratio of social to health service expenditures for Organization for Economic Co-operation and Development (OECD) countries, 2005.



Elizabeth H Bradley et al. *BMJ Qual Saf* 2011;20:826-831

**EXHIBIT 2****Annual state-level spending as a percentage of state GDP, 2002 and 2004-09**

<b>Spending category</b>	<b>Mean (%)</b>	<b>SD</b>	<b>IQR</b>
Medicaid <sup>a</sup>	2.2	0.8	1.74, 2.66
Medicare <sup>a</sup>	2.7	0.9	2.12, 3.17
Total health care <sup>a</sup> (including private spending and excluding public health)	<b>14.1</b>	2.8	12.28, 15.80
Public health <sup>b</sup>	3.6	0.8	1.99, 3.03
Total social services <sup>b,c</sup>	<b>12.2</b>	2.4	11.36, 13.93
Education <sup>b</sup>	5.3	1.0	4.66, 5.96
Income support <sup>b-e</sup>	4.0	1.5	3.76, 5.09
Transportation <sup>b</sup>	0.9	0.3	0.78, 1.10
Environment <sup>b</sup>	0.8	0.2	0.65, 0.90
Public safety <sup>b</sup> (excluding corrections)	0.8	0.2	0.66, 0.85
Housing <sup>b</sup>	0.3	0.2	0.18, 0.30

Bradley, E et al 2016. Variation in Health Outcomes: The Role of Spending on Social Services, Public Health, and Health Care, 2000-09. *Health Affairs*.

# Case 6: The 5150

- 34 year old F
- Schizophrenia and meth use
- Brought in by police after found yelling in her neighborhood, dressed inappropriately for weather, requires pharmacologic and physical restraints

# So...Is ED use actually a problem?

- Reduce it?
- Improve it?
- Push people out?
- Pull people out?



# Limitations of ED Visit Reduction Program Literature

- Inadequate selection of comparison groups
- Lack of data regarding impact on other health services
- No or incomplete capture of costs and savings
- Rarely assessed impact of ED use outside of program site

# Challenges in Implementing ED Visit Reduction Programs

- No off-the-shelf formula for success
- Successful “high risk” programs are costly
- Primary care is key for low-acuity patients, but often limited capacity
- Program staff burnout, difficulty recruiting providers

# Our work in this area

- San Francisco Whole Person Care Pilot
- Emergency Department Information Exchange (EDIE)
- San Francisco Health Plan CareSupport
- Pay For Success project
- Coordinated Care Management System



# The future: ED use as an intervention opportunity

- Predictive modeling can facilitate ED-based intervention targeting
  - Key contributors to frequent use (e.g. housing status) often missing in administrative data
- Opportunity for public health good: vaccines, HIV testing, SBIRT
- Cross-system information sharing can enable coordinated care



# The future: ED use as integral part of delivery system

- Supplements an overworked or maldistributed primary care workforce
- Facilitates outpatient and inpatient workups
  - May contribute to patient satisfaction, fewer lost hours from work/more efficiency
- After-hours care at what is likely a low marginal cost for low-acuity visits

# Thank you!

- [Maria.raven@ucsf.edu](mailto:Maria.raven@ucsf.edu)