A Health Dividend for America: U.S. Health Care Expenditures and Opportunity Costs

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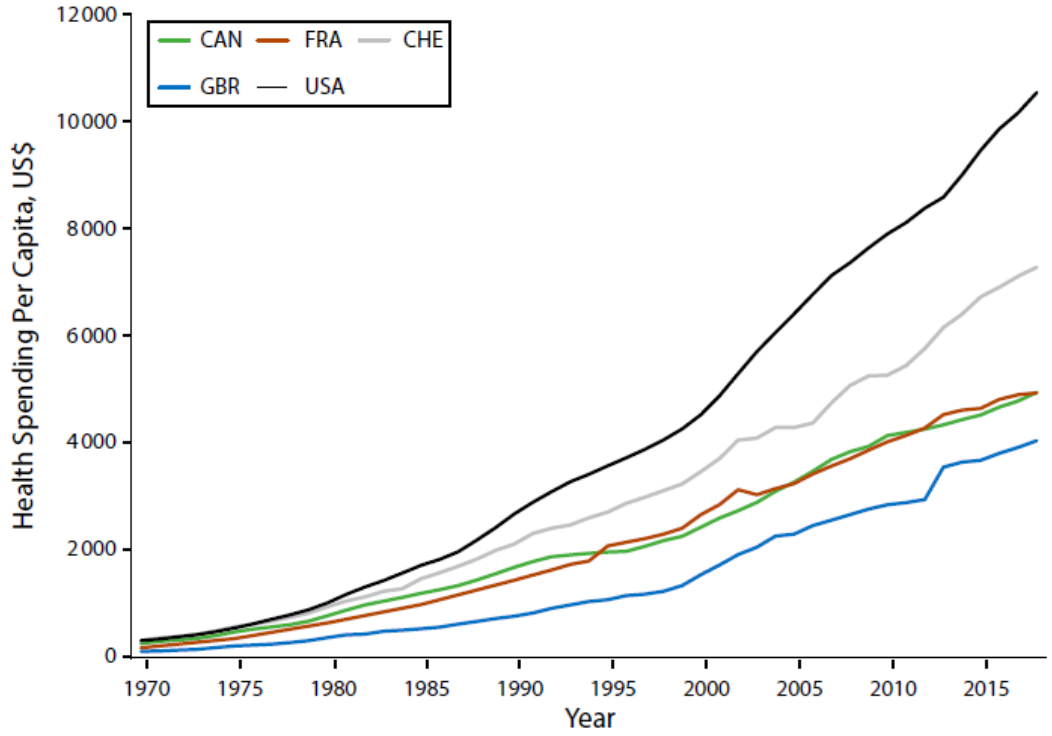
Disclaimer:

Views expressed are my own

USA SPENDS FAR MORE ON MEDICAL CARE THAN ANY OTHER NATION …

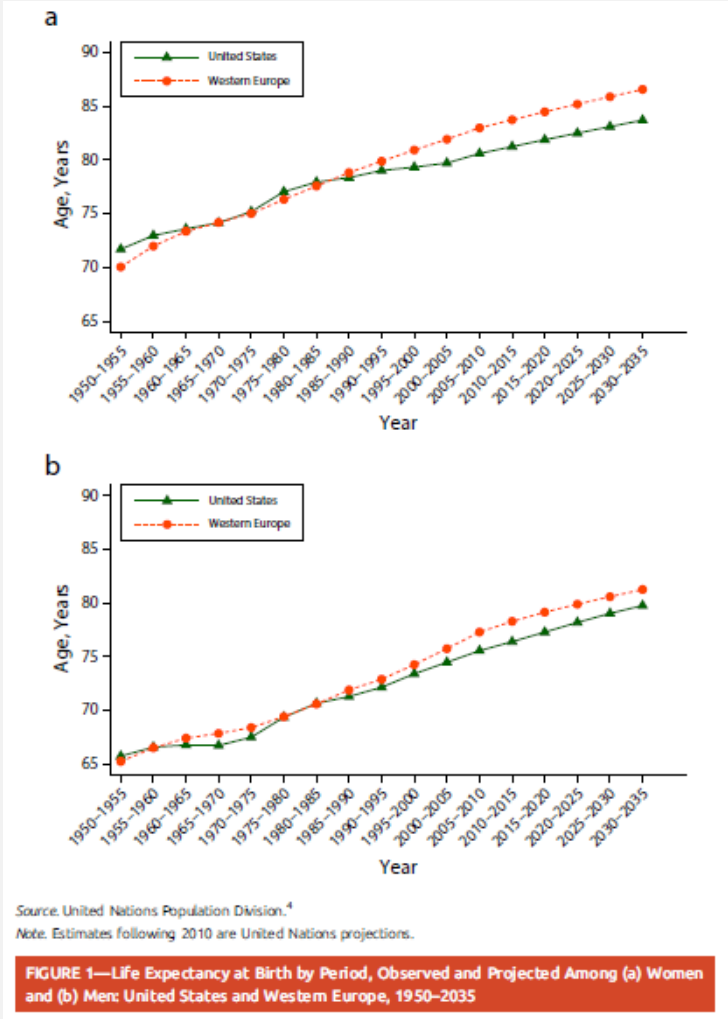


Note. OECD = Organisation for Economic Co-operation and Development. The countries included are Canada (CAN), France (FRA), Switzerland (CHE), Great Britain (GBR), and the United States. All US spending totals are adjusted for inflation to 2018 US dollars. All international spending totals are purchasing power parity adjusted to 2018 US dollars. An alternative measure of health care spending is the percentage of a nation's gross domestic product devoted to health care (see Figure C, available as a supplement to the online version of this article at http://www.ajph.org). When viewed graphically these 2 measures, although conceptually distinct, represent similar views of US health care spending in comparison with OECD nations over the time period assessed.

FIGURE 1—Total Health Spending per Capita in Selected OECD Nations, 1970–2018

McCullough, Speer, Magnan, Fielding, Kindig, Teutsh. Reductions in Reduction in US Health Care Spending Required to Meet the IOM's 2030 Target AJPH. 2020; 110(12):1735-1740.

… YET OUR LIFE EXPECTANCY LAGS OECD PEERS



Source. United Nations Population Division.[4]

Note. Estimates following 2010 are United Nations projections.

FIGURE 1—Life Expectancy at Birth by Period, Observed and Projected Among (a) Women and (b) Men: United States and Western Europe, 1950–2035

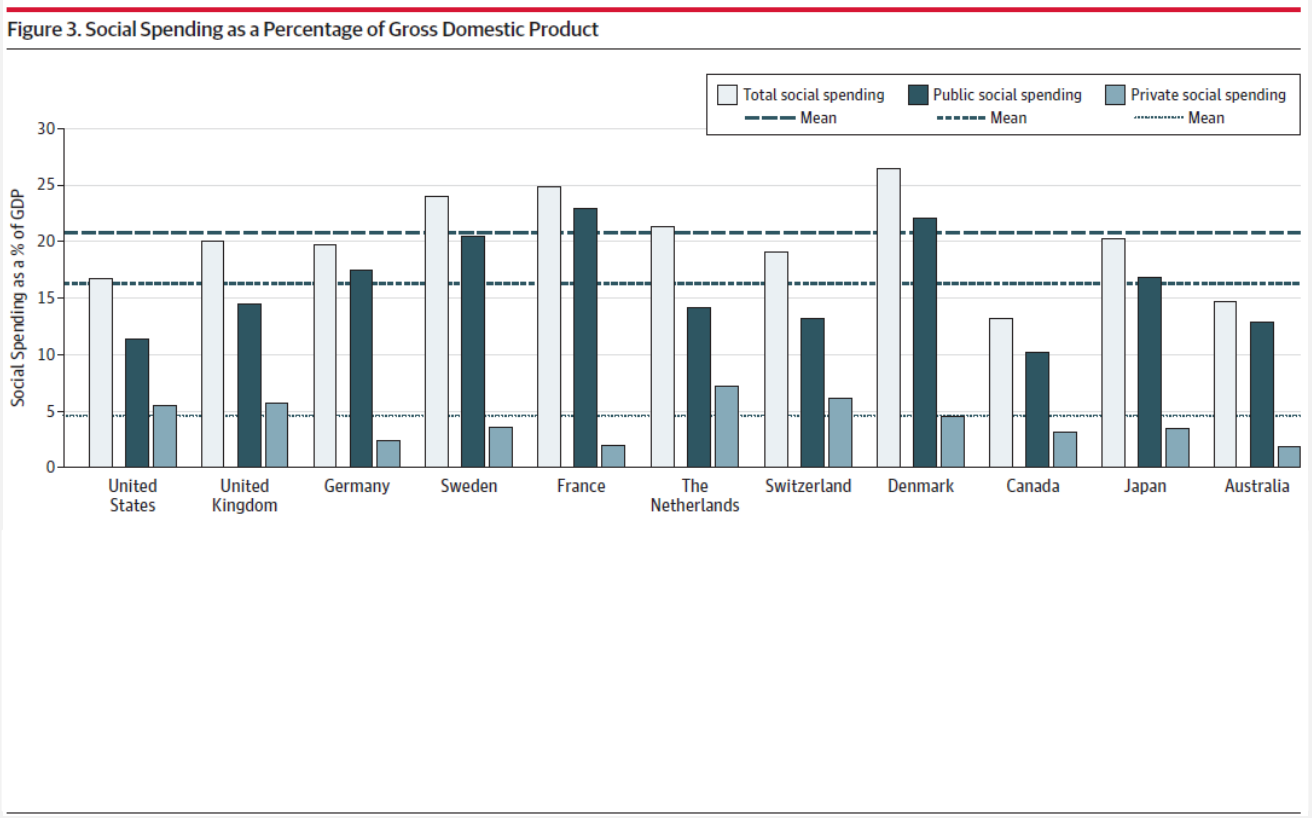
Kindig, Nobles, Zidan. Meeting the IOM's 2030 US life expectancy target. AJPH. 2018; 108(1): 87-92.

DISCONNECT BETWEEN HEALTH CARE SPENDING & HEALTH OUTCOMES

- Not all drivers of health outcomes are touched by health care spending
  - Underlying determinants such as social environment, physical environment
- Not all health care spending impacts health outcomes
  - Health spending that does not improve health is referred to as "wasteful" spending

ALIGNMENT BETWEEN DETERMINANTS OF HEALTH & HEALTH SPENDING

- Not all drivers of health outcomes are touched by health care spending
  - Some argue we spend close to the OECD mean for social spending.

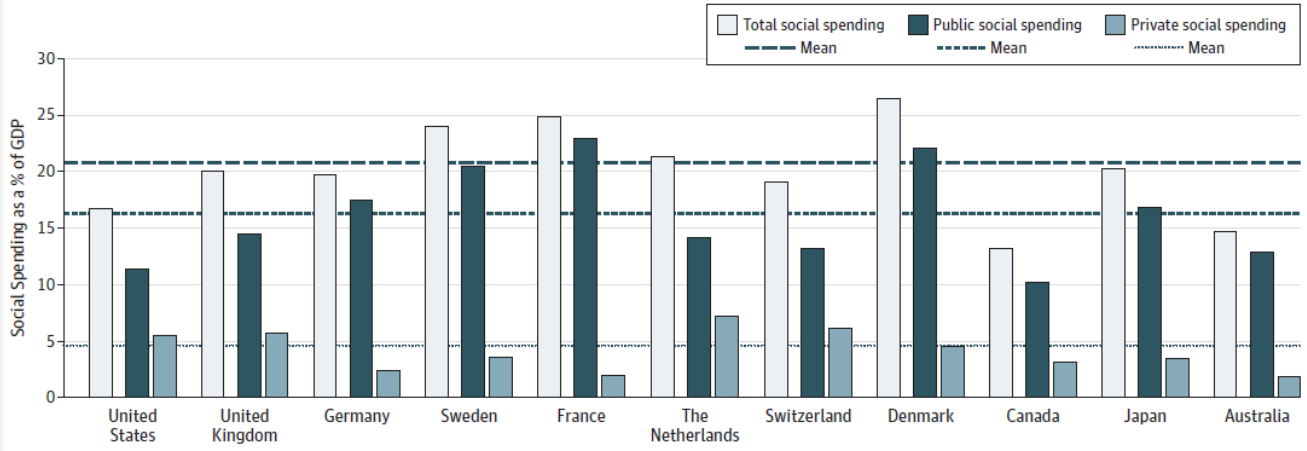


Papanicolas I, Woskie LR, Jha AK. Health Care Spending in the United States and Other High-Income Countries. *JAMA.* 2018;319(10):1024–

ALIGNMENT BETWEEN DETERMINANTS OF HEALTH & HEALTH SPENDING

- Not all drivers of health outcomes are touched by health care spending
  - Some argue we spend close to the OECD mean for social spending.
  - I argue it's worse than that.

Figure 3. Social Spending as a Percentage of Gross Domestic Product

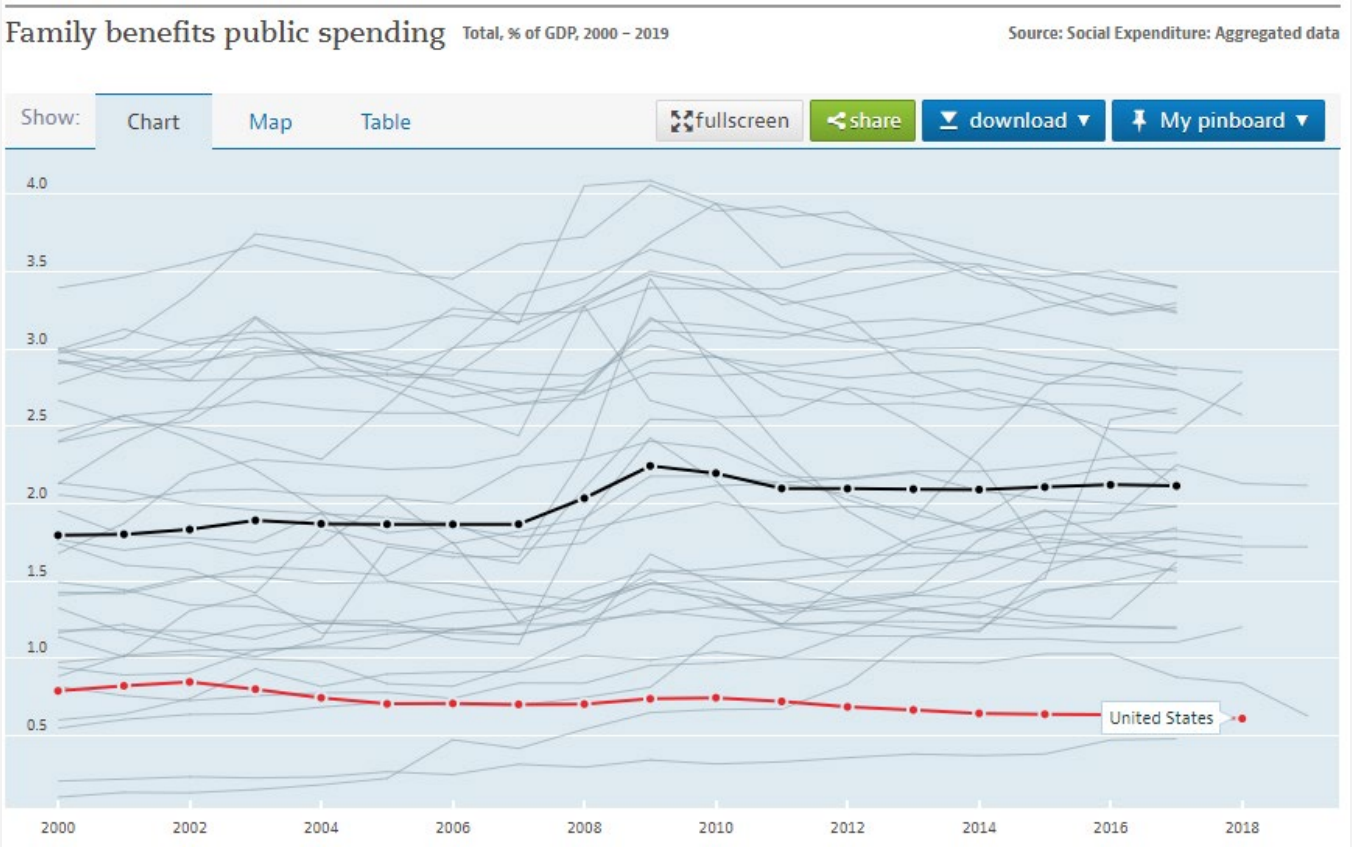


Social spending is the provision by public (and private) institutions of benefits to and financial contributions targeted at households and individuals to provide support during circumstances that adversely affect their welfare, provided that the provision of the benefits and financial contributions constitutes neither a direct payment for a particular good or service nor an individual contract or transfer. Such benefits can be cash transfers or can be direct (in-kind) provision of goods and services. Main spending areas include old age, health, family, incapacity, labor market, and housing (Organisation for Economic Co-operation and Development). Private social spending is functionally the same as public social spending but provided through a private mechanism. Social benefits delivered through the private sector (not transfers between individuals) involve an element of compulsion and/or interpersonal redistribution; for example, through pooling of contributions and risk sharing. This may include old-age pensions and support services for older adults, survivor benefits, disability and sickness cash benefits, family support, unemployment benefits, housing support (eg, rent subsidies), and other social policy areas excluding health spending. Pensions constitute an important part of private social spending in the United States and can be mandatory or voluntary. Independent, out-of-pocket spending on social services is not included.

Papanicolas I, Woskie LR, Jha AK. Health Care Spending in the United States and Other High-Income Countries. *JAMA.* 2018;319(10):1024–

ALIGNMENT BETWEEN DETERMINANTS OF HEALTH & HEALTH SPENDING

- Not all drivers of health outcomes are touched by health care spending
  - Health care and pension spending aside, USA lags OECD peers in spending for "family benefits"



OECD (2021), Family benefits public spending (indicator). doi: 10.1787/8e8b3273-en

DISCONNECT BETWEEN HEALTH CARE SPENDING & HEALTH OUTCOMES

- Not all drivers of health outcomes are touched by health care spending
  - Underlying determinants such as social environment, physical environment
- Not all health care spending impacts health outcomes
  - Health spending that does not improve health is referred to as "**wasteful**" spending
  - Sources:
    - Yong PL, Saunders RS, Olsen LA, eds. The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary. Washington, DC: National Academies Press. 2010.
    - Berwick DM, Hackbarth AD. Eliminating waste in US health care. JAMA. 2012;307(14):1513–1516.
    - The price of excess: identifying waste in healthcare spending. PricewaterhouseCoopers' Health Research Institute. 2008.
    - Kelley R. Where can $700 billion in waste be cut annually from the US healthcare system? Ann Arbor, MI: Thomson Reuters. 2009:24.
    - Fredell MN, Kantarjian HM, Shih YT, Ho V, Mukherjee B. How much of US health care spending provides direct care or benefit to patients? Cancer. 2019;125(9): 1404–1409.
    - Shrank WH, Rogstad TL, Parekh N. Waste in the US health care system: estimated costs and potential for savings. JAMA. 2019; 322(15):1501-1509.

WASTEFUL SPENDING IS NO SMALL MATTER

TABLE 1—Overview of Published Estimates of Comprehensive Wasteful US Medical Care Spending, in 2019 US$ Billions and Per Capita

Source	Aggregate Magnitude of Waste (Shown in 2019 US$ Billions)	Aggregate Magnitude of Waste (Shown in 2019 US$ Per Capita)
"The Price of Excess—Identifying Waste in Healthcare Spending"[7]	891–1345	2685–4053
"Where Can $700 Billion in Waste Be Cut Annually From the US Healthcare System?"[8]	876–1226	2639–3694
"The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary"[3]	879	2649
"Eliminating Waste in US Health Care"[4]	639–1449	1925–4366
"How Much of US Health Care Spending Provides Direct Care or Benefit to Patients?"[9]	601–1905	1811–5740
"Waste in the Health Care System: Estimated Costs and Potential for Savings"[10]	760–935	2290–2817

Speer et al. Excess medical care spending: the categories, magnitude, and opportunity costs of wasteful spending in the United States. AJPH. 2020; 110(12):1743-1748.

CATEGORIZING WASTEFUL SPENDING

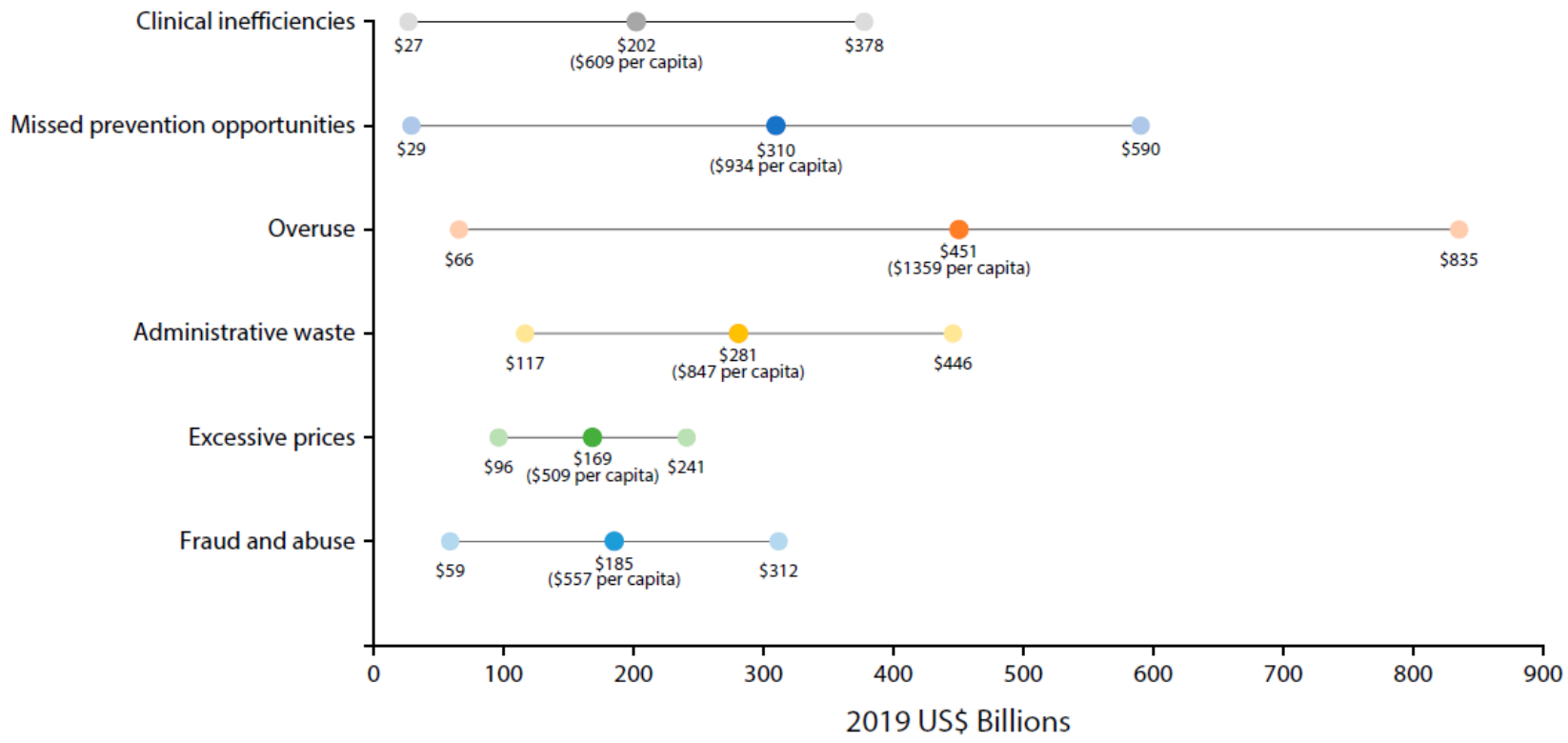


FIGURE 1—Estimates of Wasteful US Medical Care Spending Identified in the Published Literature, Shown as Median Estimate and Range in 2019 US$ Billions and Per Capita

Speer et al. Excess medical care spending: the categories, magnitude, and opportunity costs of wasteful spending in the United States. AJPH. 2020; 110(12):1743-1748.

EXAMINING THE IMPACTS OF WASTEFUL MEDICAL CARE SPENDING

- Beyond the lack of health value, there is also an *opportunity cost*:
- Dollars we spend on medical care are dollars that are not available to be used for other purposes
  - $1 spent on a test or scan that did not need to be performed is $1 less that **employers** have available to pay employees, remain globally competitive, or satisfy shareholders
  - $1 spent on prices that are too high is (roughly) $1 less that the federal **government** has available to reduce debt
  - $1 spent on administrative overhead is $1 less that can be allocated towards social or infrastructure priorities that *do* improve health outcomes

AN "OPPORTUNITY COST"?

- **Opportunity cost**: the loss of potential gain from other alternatives when one alternative is chosen

EXAMINING THE OPPORTUNITY COST OF MEDICAL CARE SPENDING

- Opportunity cost of $1 spent on medical health-seeking strategies:
- $1 spent on medical care is $1 less that is available to be spent on other priorities
  - Non-medical health-seeking strategies
  - Other non-health priorities
  - Profit/rent/wages
- This opportunity cost may be logical when medical care spending improves our health.
- But what of when it does not improve our health ('waste')?

EXAMINING THE OPPORTUNITY COST OF MEDICAL CARE SPENDING

Caveats:

- $1 "wasted" on medical care represents waste to the individual or entity that is paying for the care
- But $1 "wasted" on medical care may have some theoretical value to a patient
- And $1 "wasted" on medical care can also represent revenue to others

EXAMINING THE "HEALTH DIVIDEND" OF THE OPPORTUNITY COST

- What is the loss of potential gain from other alternatives when one alternative (spending $879 B on non-value added health care) is chosen?
- Alternative uses for $879 billion per year:
  - Essentially unlimited combination of priorities we could address
- Some are fun to consider and may benefit society:
  - Repeal estate tax ($64 B)
  - Switch to 100% renewable energy ($423 B)
- Some may actually *improve health*
  - Medical tests, procedures, *and coverage* that do impact health outcomes
  - Non-medical programs that are not currently fully implemented that **do** impact health outcomes
    - Social, quality of life, housing, infrastructure, climate

Wasteful Health Care Spending (Health care spending with no health impacts)
$879 billion
$2,649 per capita

Estimated public share
(45%)
$396 billion
$1,192 per capita

Estimated private sector share
(55%)
$483 billion
$1,457 per capita

Available to Reinvest
(50%)
$198 billion
$596 per capita

Use for deficit reduction
(50%)
$198 billion
$596 per capita

- Social: $123B
- Quality of Life: $49B
- Housing: $613M
- Infrastructure: $18B
- Climate: $1B

Health Dividend

SOCIALLY-FOCUSED Programs

- **$3.3 B**: Nearly 500,000 pregnant smokers and pregnant teenagers could receive regular nurse home visits, which has been causally linked with reduced incidence of ED visits and low–birth weight.
- **$9.0 B**: More than 1.1 million students in grades 1-6 could participate in an evidence-based social development program causally linked with decreases in risky sexual behavior and drug use and improved work, social, and emotional functioning as adults.
- **$14.7 B**: Expand Head Start to serve all eligible children (currently serving only ~half), which has been linked with a reduction in childhood obesity and decreased smoking prevalence later in life.14 However, evidence about other long-term outcomes is mixed.
- **$53.6 B**: Provide universal Pre-K to non-Head Start participants, which has been causally linked to long-term gains in cognitive ability and socialization.
- **$57.7 B**: Decrease class size to 13-17 students for all grade 1-6 schools, which has been causally linked with increased graduation rates and attenuate gains in life expectancy.

McCullough, Zimmerman, Fielding, Teutsch. 2012. A health dividend for America: the opportunity cost of excess medical expenditures. *Am J Prev Med* 43(6):650-4.

Health Dividend

QUALITY OF LIFE-FOCUSED Programs

- **$58 M**: Investment in greening of built environment (LA County's PLACE program) over 10 years
- **$833 M**: Community Facility & Rural Economic Development grant to every small town over 10 years
- **$1.0 B**: Safe Routes to School grant for every K-12 school in US over 10 years
- **$1.7 B**: Double the size of Job Corps program
- **$6.0 B**: Universal Basic Income of $500 per month for individuals from low-income neighborhoods
- **$8.6 B**: Expansion of public libraries at level of Seattle's Libraries for All program over 10 years
- **$19.5 B**: Double federal investment in water infrastructure and clean drinking water
- **$21.4 B**: Expansion of SNAP to cover all food insecure individuals in U.S.

McCullough, Zimmerman, Fielding, Teutsch. 2012. A health dividend for America: the opportunity cost of excess medical expenditures. *Am J Prev Med* 43(6):650-4.

Health Dividend

HOUSING-FOCUSED Programs

- **$613 M**: Housing First intervention program for all chronically homeless individuals with severe alcohol problems, which has been causally linked with improved health outcomes and is *cost saving* when considering all societal costs.
  (Larimer et al. Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. JAMA, 301(13), 1349-1357.)

INFRASTRUCTURE-FOCUSED Programs

- **$17.6 B**: Fill entire public transit backlog over 10 years.
  (https://infrastructurereportcard.org/cat-item/transit/)

CLIMATE-FOCUSED Programs

- **$1.3 B**: Implement Disaster Mitigation and Adaptation Fund identified by GAO.
  (https://www.gao.gov/products/GAO-20-127)

Health Dividend

YOUR Priority Programs

- Behavioral health crisis intervention teams? $3 B
- Full funding of the nation's public health system? $4 – 8 B
- Equity initiatives, including Seed for OK's Children, Social Impact Bonds,
- Medicare insolvency
- Anything

Health Dividend

- Remember:
  - Priorities considered represent *only* the shaded portion of the orange box above.
  - The rest of the $879 B pie is retained for other public fiscal priorities (e.g., debt reduction) or by the private sector.
- Many other alternative uses exist:
  - An overriding principle of the Health Dividend is that there is an opportunity cost to our current prioritization of non-value added over evidence-based programs outside of the traditional medical care sector.
  - Re-prioritizing evidence-based social, quality of life, housing, infrastructure, or climate programs may yield a *health dividend* above and beyond the health outcomes that are generated by our current health care spending portfolio

Health Dividend

To consider:

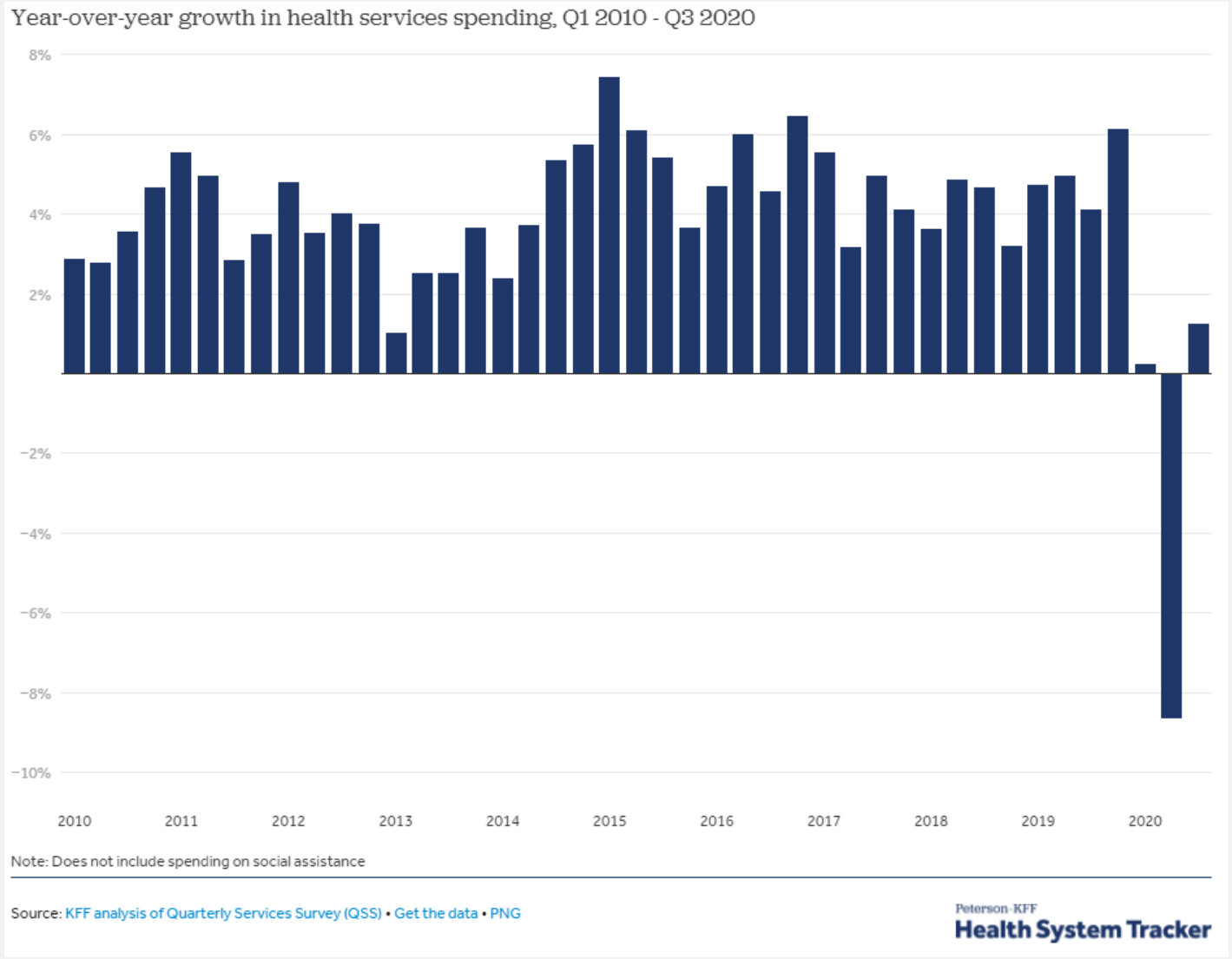
- The U.S. has the second lowest “family benefits” spending of any OECD nation.
- Is this because we *can’t* afford to spend more?
- Or because we don’t *want* to afford to spend more?

Therefore

- Health dividend was allocated towards increasing spending for non-medical initiatives known to improve health AND to other societal priorities.
- The net budgetary effect of the initiatives discussed here reduces governmental spending on health and wellbeing.
- The net health effect is anticipated to be positive

But, it is not anticipated to be easy to accomplish

Health Dividend



Health Dividend

TABLE 1—Per Capita Health Care Spending Decreases Needed to Achieve Parity With OECD Nations by 2030 or 2040

Parity Target Among OECD Member Countries	Target per Capita Spending Amount, US$	Annual Decline Necessary to Achieve Spending Parity, %	Annual Average Decline Necessary to Achieve Spending Parity, US$
2030[a]			
Median	5230	−7.0	−575
90th percentile	8068	−3.2	−317
2040[b]			
Median	5775	−3.3	−275
90th percentile	8816	−1.3	−131

Note. OECD = Organisation for Economic Co-operation and Development.

[a]Calculations performed with OECD health spending data and projections.

[b]Calculations performed with Institute for Health Metrics and Evaluation global expected health spending data and projections.

Health Dividend

- The scale of the issue is paradoxically a challenge and opportunity
  - $879 Billion sounds like a lot, but in reality it is almost unfathomably large
  - A systemic view a waste operate may distract from its impacts on individuals
- The Health Dividend only considers the portion of our spending deemed to be *zero*-value added.
  - Additional opportunity cost from low-value care?
  - Additional opportunity cost from high overall levels of spending?
- Above all, need consider waste in a system with inequitable access and opportunity.