

Value Creation in the US Health System

How start-ups can succeed in a complex and highly regulated system

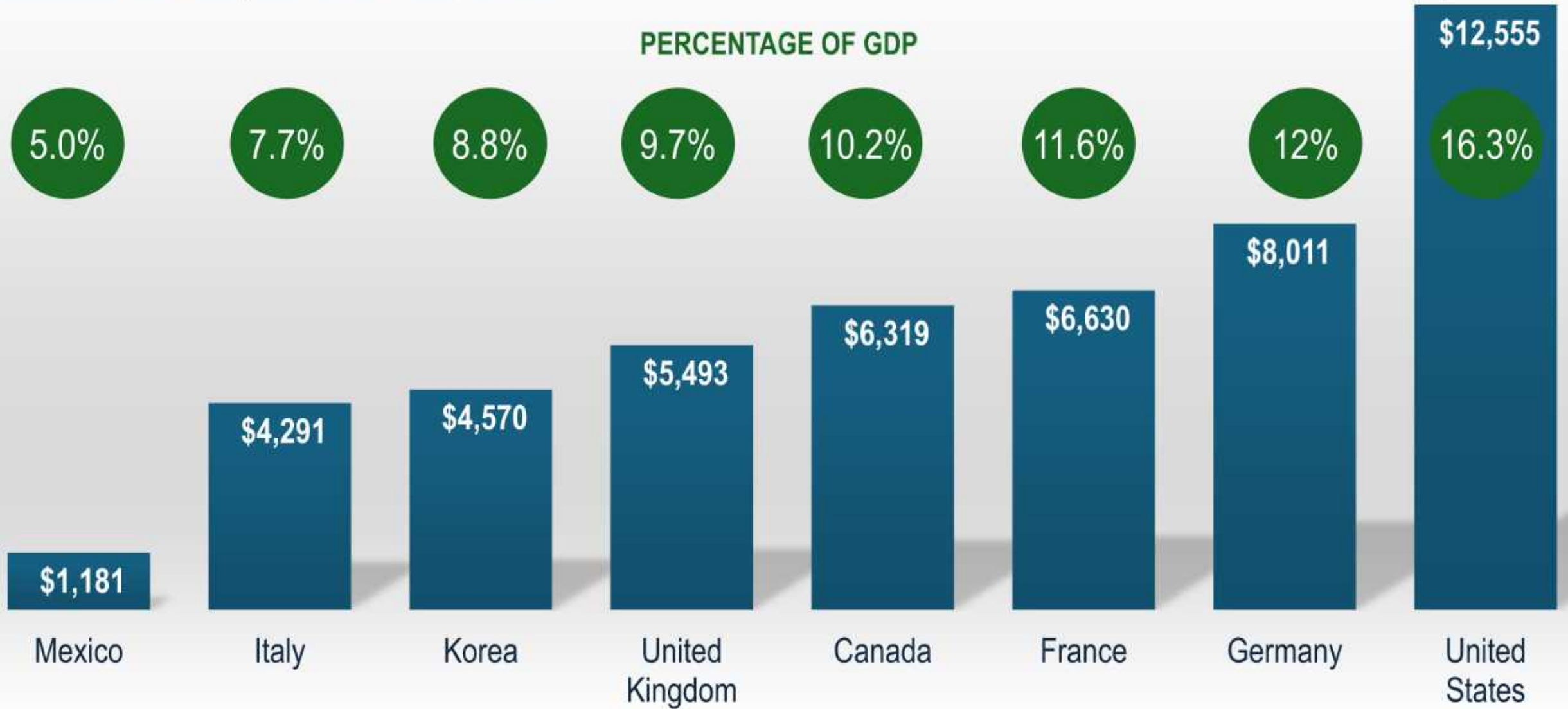


Mitch Morris, MD



Health Spending per Capita and as a Share of GDP

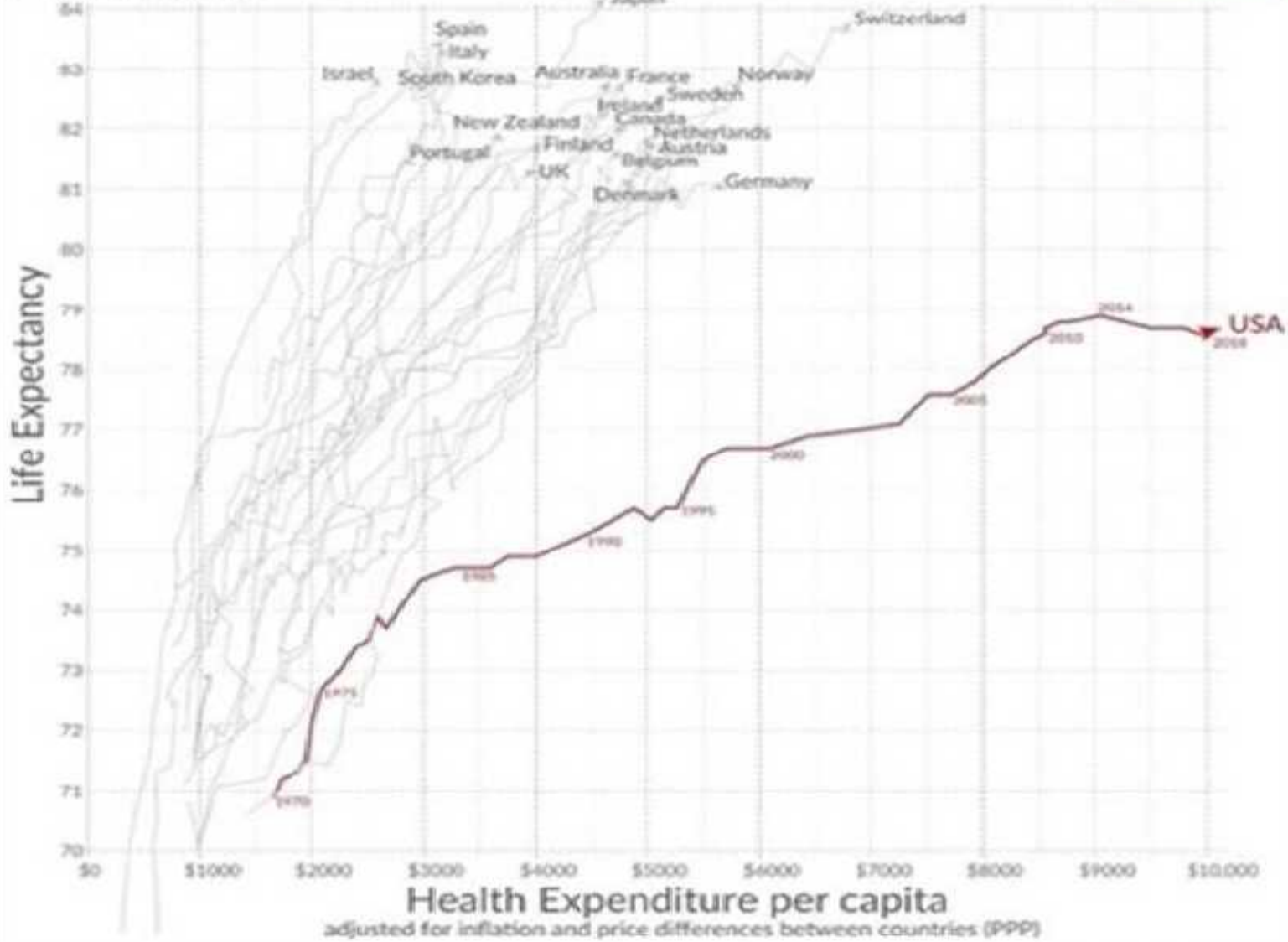
Selected Developed Countries, 2022



Life expectancy vs. health expenditure

Our World in Data

From 1970 to 2018



U.S. has the Lowest Life Expectancy – and it is falling!

Data source: OECD — Note: Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services, and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources). Licensed under CC-BY by the author Max Roser.

The decline in life expectancy in the United States can be attributed to several major factors

Healthcare Access and Inequality – There are disparities in healthcare access and quality across different populations in the U.S. Socioeconomic status, race, and geographic location can affect the level of healthcare a person receives, impacting their overall health and life expectancy.

Chronic Diseases – The prevalence of chronic diseases like heart disease, cancer, and diabetes is a significant factor. These conditions are often linked to lifestyle choices, including poor diet, physical inactivity, and smoking.

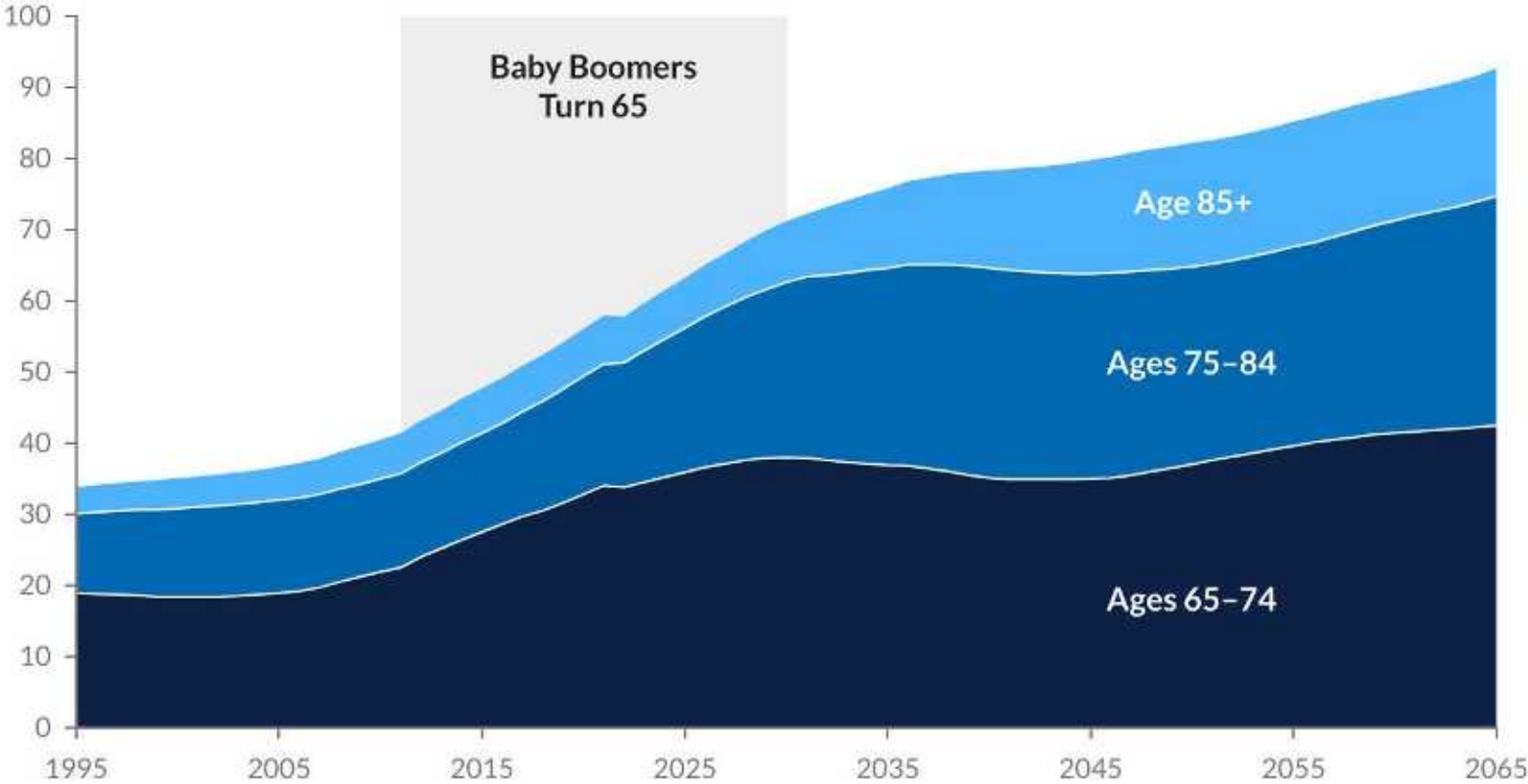
Obesity is a complex major contributor.

Opioid Epidemic - the opioid crisis has led to a significant increase in drug overdose deaths. This issue is compounded by the availability of potent synthetic opioids like fentanyl, which are highly addictive and lethal in small doses.

Mental Health Issues – Rising rates of depression, anxiety, and other mental health disorders contribute to the life expectancy decline. These conditions can lead to suicide and adversely affect physical health.

The elderly population is growing rapidly and living longer

U.S. Population Age 65+ (Millions)



Source: U.S. Census Bureau



CADUCEUS
LAUNCH

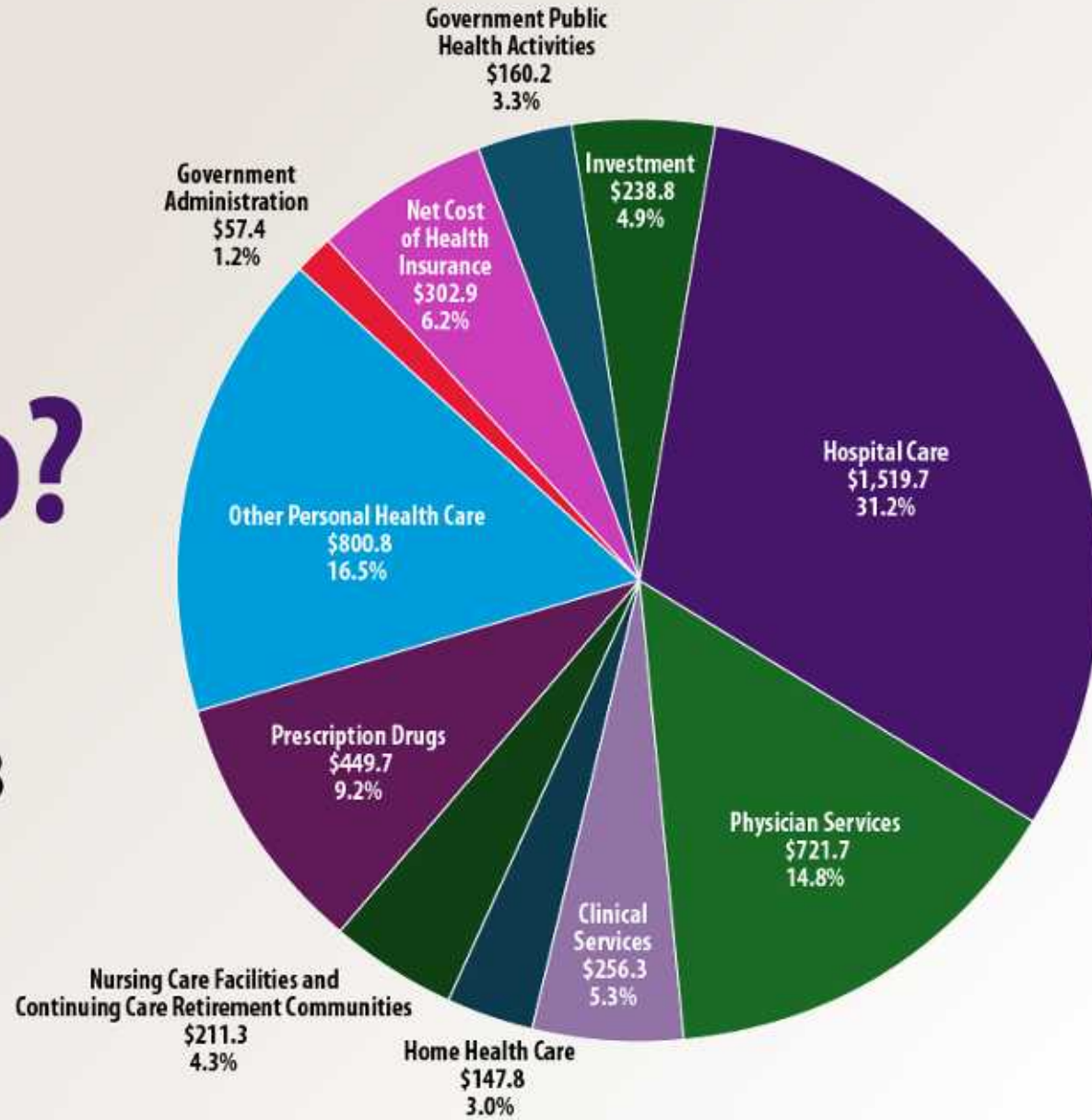
Drivers of Cost –

Why do we cost more than everyone else?

- Fragmented Payment Systems & Payers
- Administrative Burden and Complexity
- Underinvestment in broader Determinants of Health
- Utilization – we utilize services differently than other countries
- The US has been the R&D lab for the world
- Underinvestment in Primary Care & Prevention
- Lack of Coordination
- We value individual choices over the group - end-of life care
- Litigation – defensive medicine

Where did it go?

The U.S. spent \$4,866.5 billion on health care in 2023



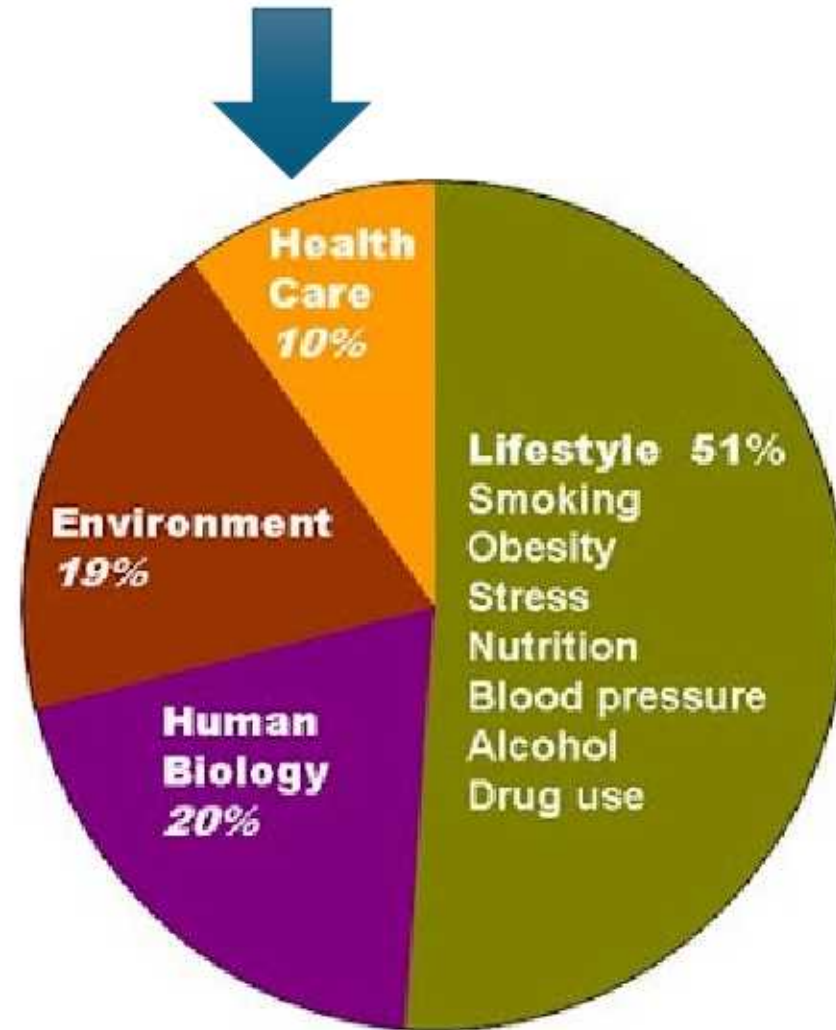
Total U.S. healthcare spending (2024):

- \$5.3 trillion
- 18.0% of GDP
- \$15,474 per person

Healthcare Continues to Change Under Trump

- Healthcare funding cuts have created an all hands on deck effort to cut costs... and another round is coming!
- Expansion of uninsured due to loss of ACA subsidies, Medicaid work requirements and State Flexibility in Medicaid, all leading to worse patient outcomes and increased bad debt for providers
- Deconstruction of Public Health Institutions (FDA, CDC, NIH)
- Resurgence of measles and other infectious diseases. Reduced focus on prevention (dietary guidance, fluoride, vaccinations) will have decades long impact
- Deconstruction of the US medical education and research enterprise, often as collateral damage from actions against their parent Universities
- Physician shortages made worse by restrictions on physician visas
- Reduced access to care for undocumented residents
- Aggressive Expansion of Pharma Price Controls via International Referencing (Most Favored Nation Pricing)
- Expansion of Association Health Plans and Short-Term Insurance
- Veterans and Mental Health Focus with Public-Private Expansion
- Refocus CMS/CMMI on Value-based Care models as a requirement

We Spend \$3 Trillion on 10% of the Problem!



The Determinants of Health

Where can Digital Health Make an Impact?

- **Enablement and Engagement:** Helping people/consumers/patients/members and their families improve their health.
- **High Costs and Affordability:** The U.S. spends more per capita on healthcare than other developed nations, yet many Americans struggle with medical expenses.
- **Administrative Inefficiencies and Bureaucracy:** Complex administrative procedures contribute to inefficiencies within the healthcare system.
- **Health Inequities and Access Disparities:** Significant disparities exist in healthcare access and outcomes among different populations.
- **Workforce Shortages and Burnout:** The healthcare industry faces staffing challenges, including shortages of primary care physicians and nurses.
- **Integration of Technology and Data Management:** While digital health technologies offer potential benefits, their implementation presents challenges such as ensuring data privacy, managing information overload, and addressing the digital divide among patients.

The convergence of health care trends: *innovation strategies for emerging opportunities*

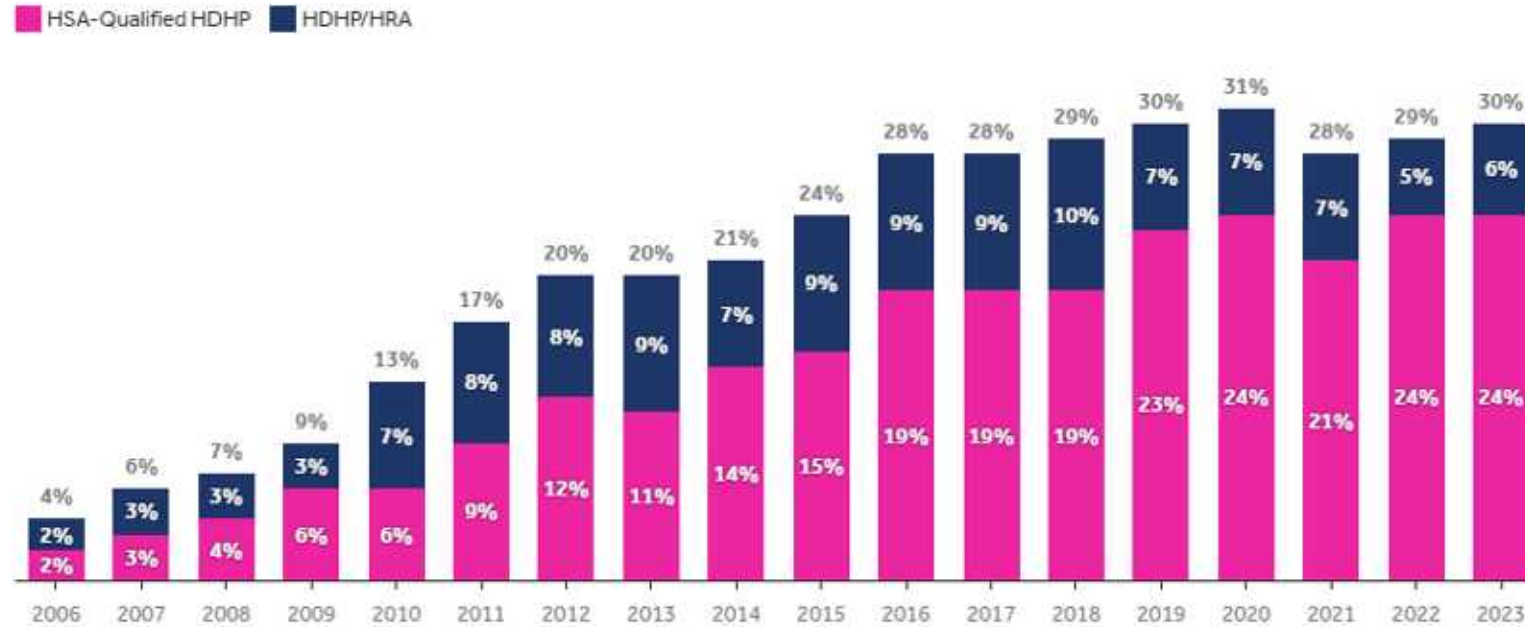
The convergence of powerful trends – new technologies, the demand for value, a growing health economy, and the government as an influencer – is transforming the traditional US health care market. While this convergence is creating substantial challenges for health care stakeholders, it is also creating opportunities for innovation in four major areas:

- **Wellness & Preventive Care:** Shifting disease management from reactive to preventive
- **Personalized Care:** Shifting offerings from mass generalization to mass customization and precision
- **Aging, Chronic, & End-of-Life Care:** Shifting the focus from institution-based aging to community-supported aging, and leveraging big data and personalization to manage chronic conditions
- **Everywhere Care:** Shifting the spectrum of care from hospitals to lower-cost sites, home, remote patient monitoring, and virtual

Surgical Migration ~68.9% outpatient (2011) → 85.4% outpatient (2018)

Consumer Out-of-Pocket Continues to Increase

Percentage of covered workers enrolled in an HDHP/HRA or an HSA-Qualified HDHP, 2006-2023



Note: Covered workers enrolled in an HDHP/SO are enrolled in either an HDHP/HRA or HSA-Qualified HDHP. Values may not sum to totals due to rounding.

Source: [KFF Employer Health Benefits Survey, 2023](#) • [Get the data](#) • [PNG](#)

Peterson-KFF
Health System Tracker

Total Medical Debt in the U.S.

- Americans owe **at least \$220 billion** in medical debt (KFF analysis)
- About **14 million people** owe more than **\$1,000**
- About **3 million** owe more than **\$10,000**

Major Consumer-Paid Categories in a \$500B growing market

- Supplements & Nutrition - \$69B
- Fitness & Physical Activity – gyms, home fitness, apps, \$100B+
- Mental Wellness – self-pay therapy, sleep, coaching,
- Preventive & Longevity – screening, genetic testing, longevity clinics
- DTC Healthcare – telehealth, GLP-1 programs, testosterone, dermatology, etc.
- Self-Monitoring / Wearables – smart watches, Oura, Whoop, CGMs
- Home diagnostics – blood and other

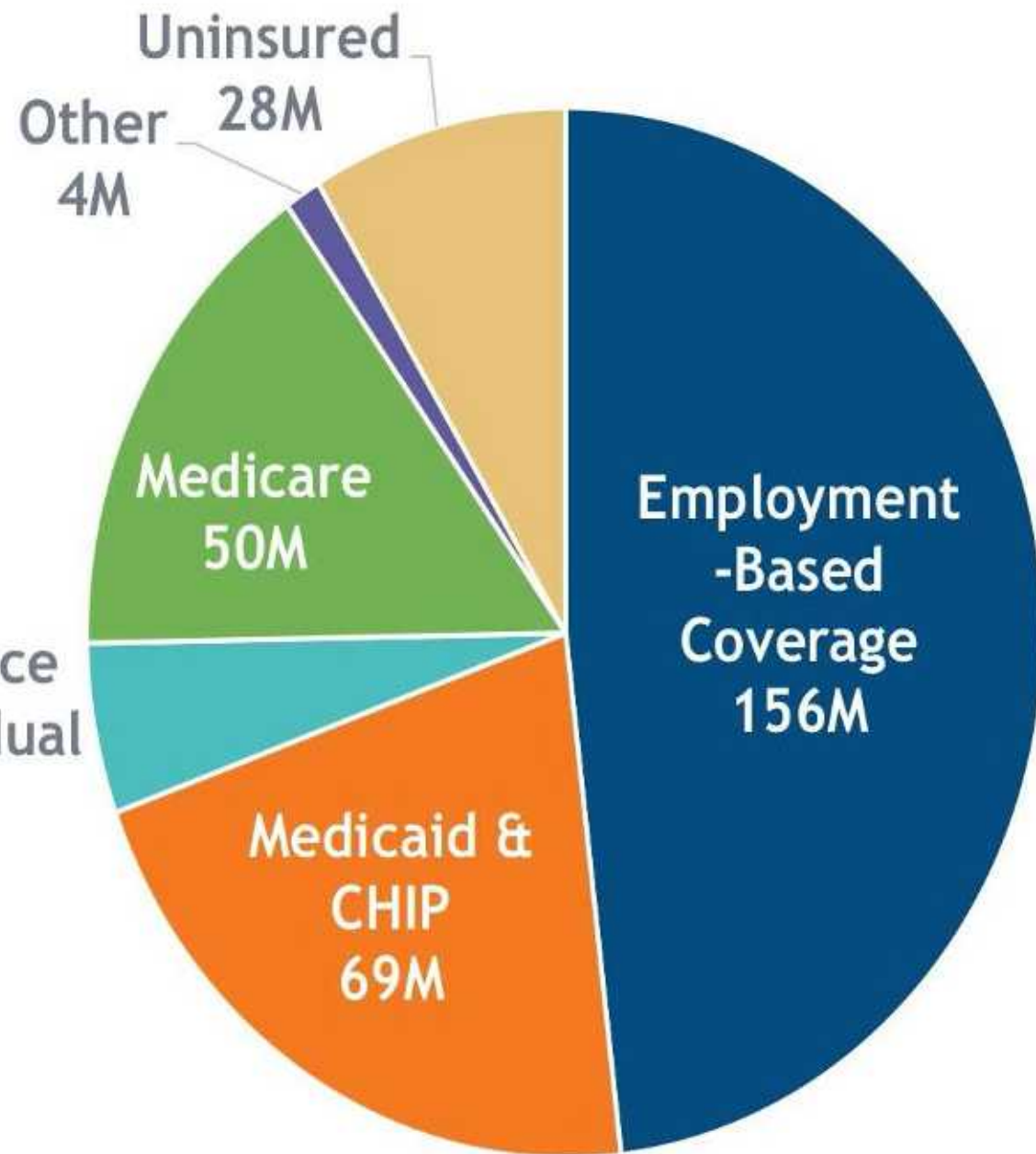
Who will pay for my product or service?

A clear value proposition should link to increasing revenue or decreasing cost to the buyer.

- Payers (health plans)
- Providers (health systems, hospitals, medical groups, home care/skilled nursing)
- Employers
- Consumers
- Retail
- Services/Tech companies/other channel partners

Provider Market

- What providers care about
 - Revenue
 - Fee for service (great majority) – requires CPT codes and CMS buy-in
 - Value-based care
 - Capitation
 - Margin
 - Mission
 - Growth - organic (slow) and acquisitive
- Challenges
 - Health plan friction – rates, prior authorization, and denials
 - Operating costs
 - Staffing (especially nursing) and burnout
 - Shift to care everywhere
 - Shift to VBC
 - Effective deployment of enabling technology



- Employment-based
- Medicare
- Medicaid & CHIP
- Uninsured
- Marketplace coverage
- Other

324 million people, 2017

Insurance is highly fragmented in the U.S.

Health Plan Market

- What health plans care about
 - Medical Loss Ratio (MLR) – how much they spend on actual care vs. SG&A and profit
 - Enrollment and retention (growth)
 - NPS scores – do employers and consumers like the services and benefits of the plan
 - Operating costs

Health Plan Market

- Management Tools
 - Manage utilization – through defined benefits and rigorous management of utilization and claims
 - Manage network of providers and rates – downward pressure on rates, steerage to lower cost providers, narrow networks
 - Manage SG&A
 - **Chronic disease management and wellness programs to lower utilization of expensive care settings**
 - Manage drug spend through Pharmacy Benefits Managers (PBMs), formulary, co-pays
 - Engagement with members

Analytics, process automation, and AI are key enablers to these tools.

Discussion