



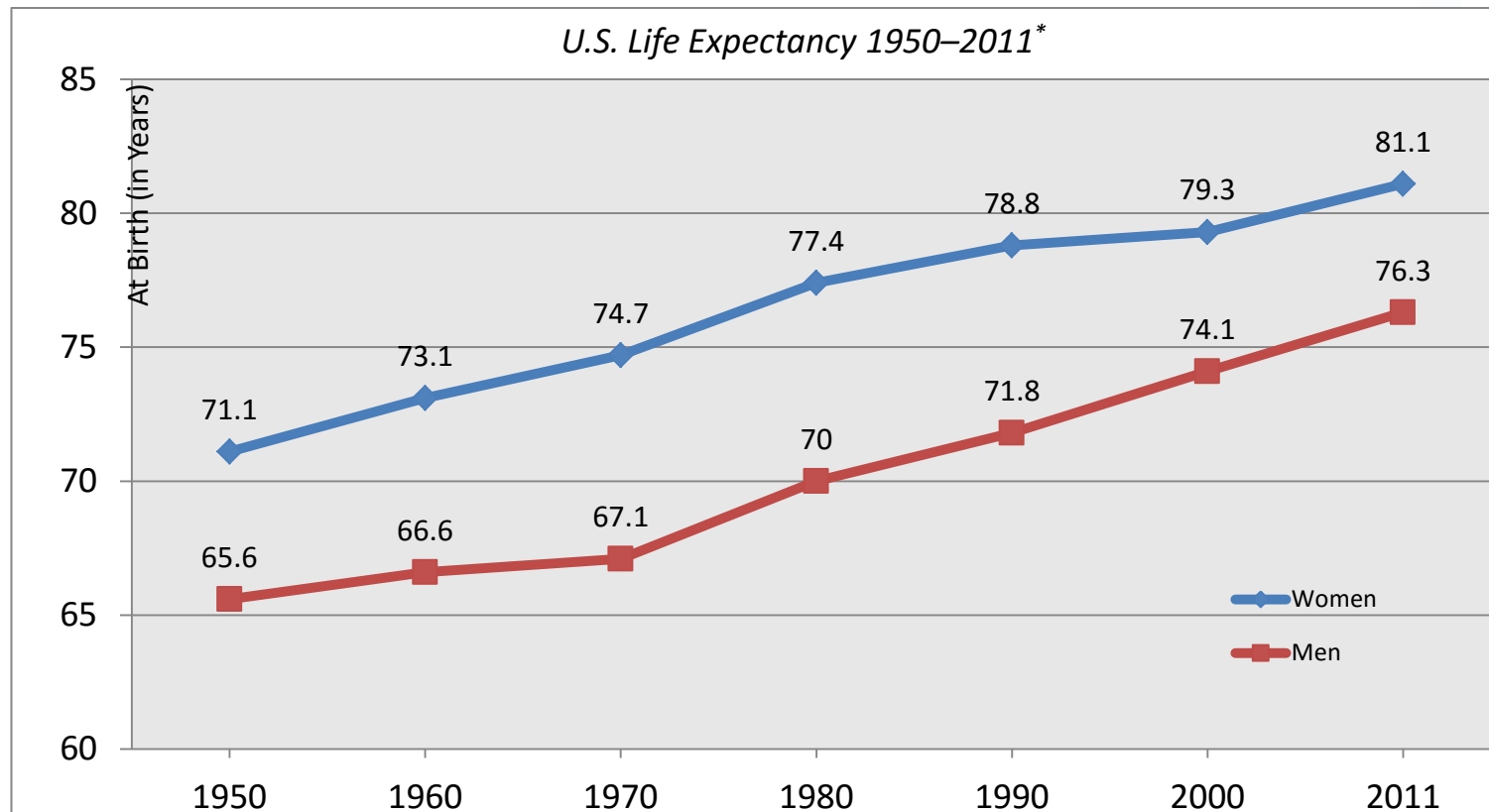
# Prescription Medicines: Costs in Context



# Increases in U.S. Life Expectancy

“ While nutrition, sanitation, other public health measures, and expanded access to care have been major sources of increasing human health, innovative medicines have also played a profound role in this progress. ”

- — The President’s Council of Advisors on Science and Technology<sup>1</sup>

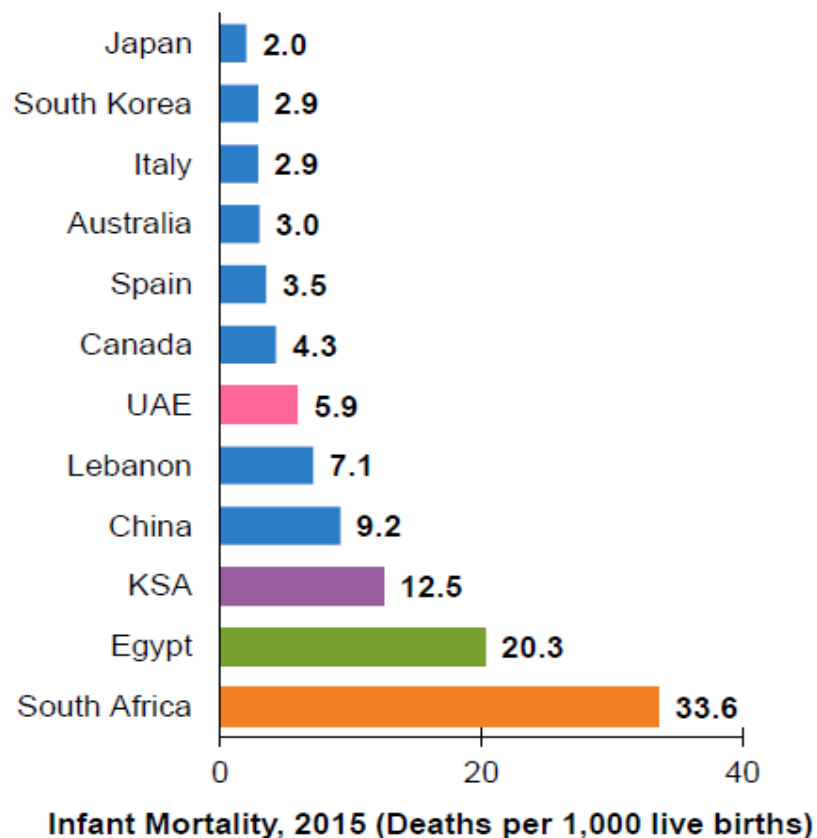
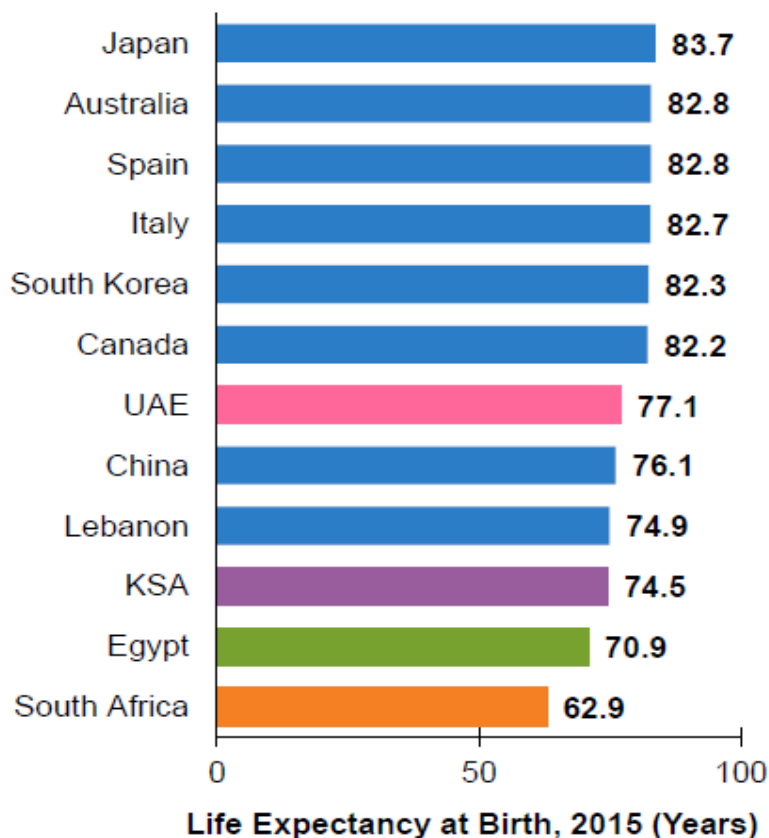


1. President’s Council of Advisors on Science and Technology. “Report to the President on Propelling Innovation in Drug Discovery, Development, and Evaluation.” Washington, DC: PCAST, September 2012.  
 2. U.S. Department of Health and Human Services (HHS), CDC, National Center for Health Statistics (NCHS). “Health, United States, 2008 with Chartbook.” Hyattsville, MD: HHS, 2009; 1950–2006 data from M. Heron, et al. “Deaths: Final Data for 2006.” *National Vital Statistics Reports* 2009; 57(14): 5. Hyattsville, MD: NCHS. Available at [www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_14.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_14.pdf) (accessed June 2010); 2007 data from J. Xu, et al. “Deaths: Final Data for 2007.” *National Vital Statistics Reports* 2010; 58(19): 13. Hyattsville, MD: NCHS. Available at [www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58\\_19.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf) (accessed June 2010); 2008–2009 data from K. Kochanek, et al. “Deaths: Final Data for 2009.” *National Vital Statistics Reports* 2011; 60(3): 1. Hyattsville, MD: NCHS. Available at [www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_03.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf) (accessed March 2013); 2010–2011 data from D.L. Hoyert and J. Xu. “Deaths: Preliminary Data for 2011.” *National Vital Statistics Reports* 2012; 61(6): 5. Hyattsville, MD: NCHS. Available at [www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_06.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf) (accessed December 2012).



# ME&A Life Expectancy And Infant Mortality Rates Are Behind Developed Nations

**Low investment in healthcare and innovative medicines contributes to lagging health outcomes**

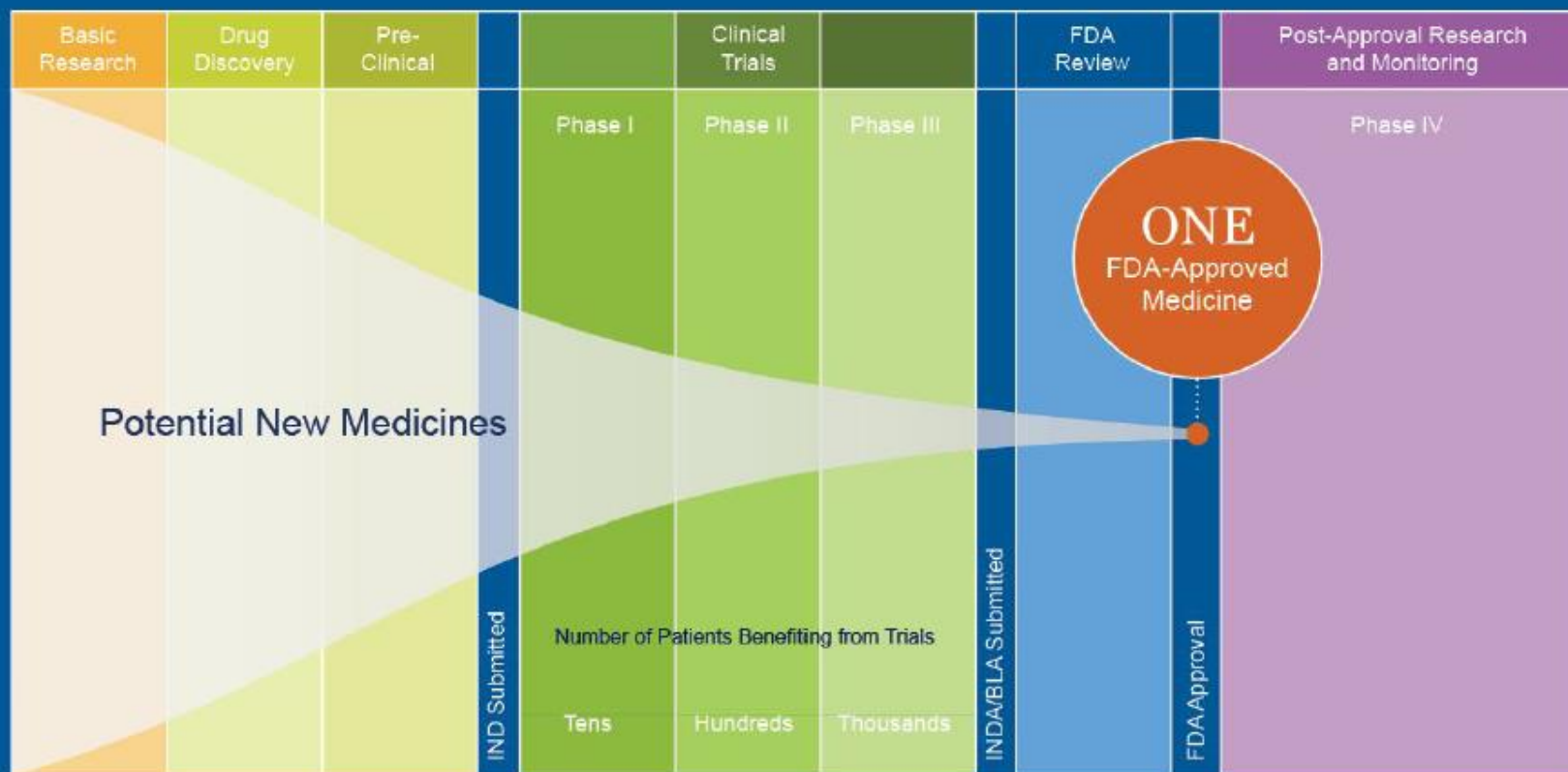


Source: Health Advances analysis; WHO Global Health Observatory Database (accessed September 2016).



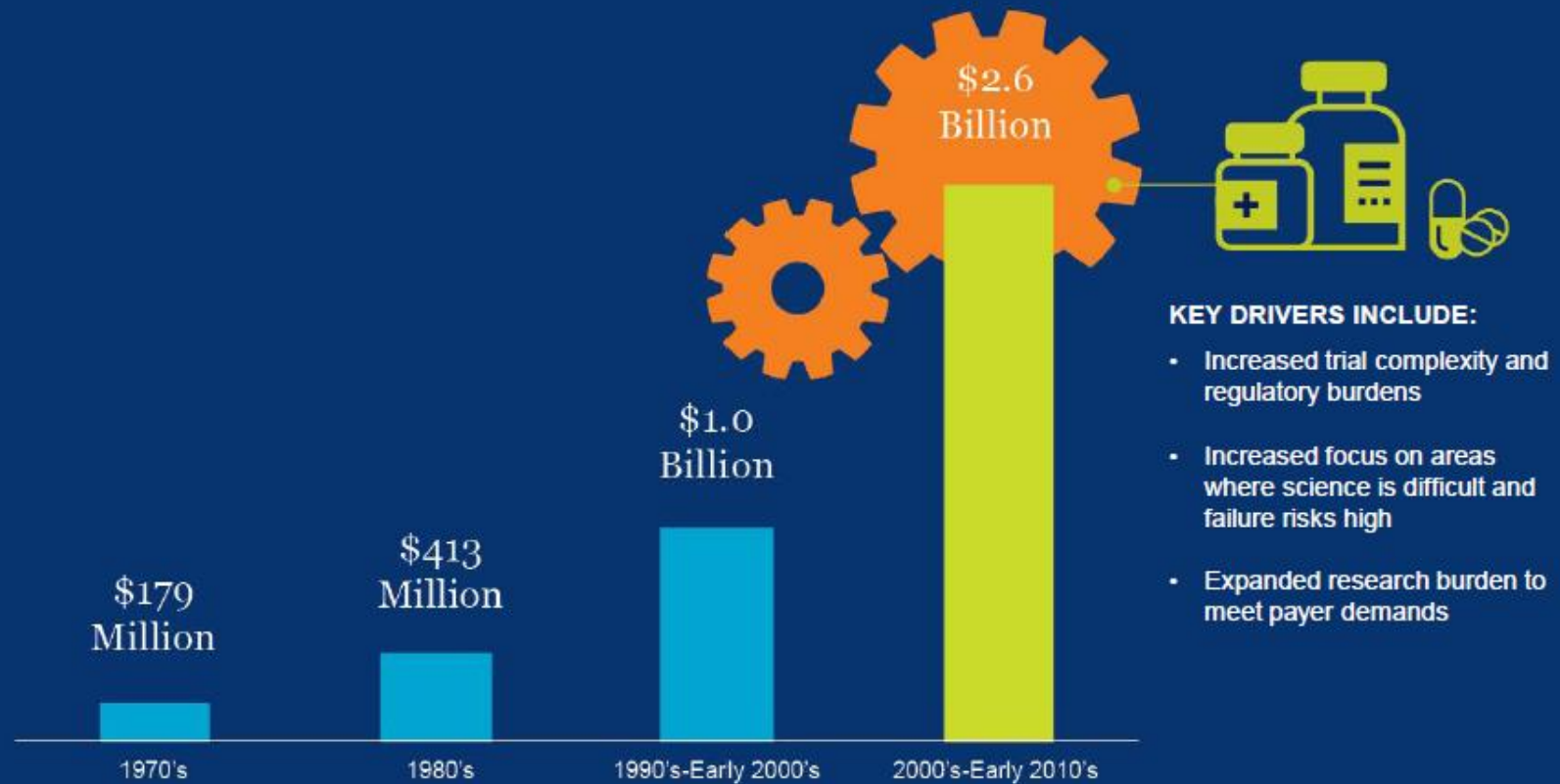
# The Biopharmaceutical Research and Development Process

From drug discovery to regulatory approval, developing a new medicine on average takes **10 to 15 years** and costs **\$2.6 billion**



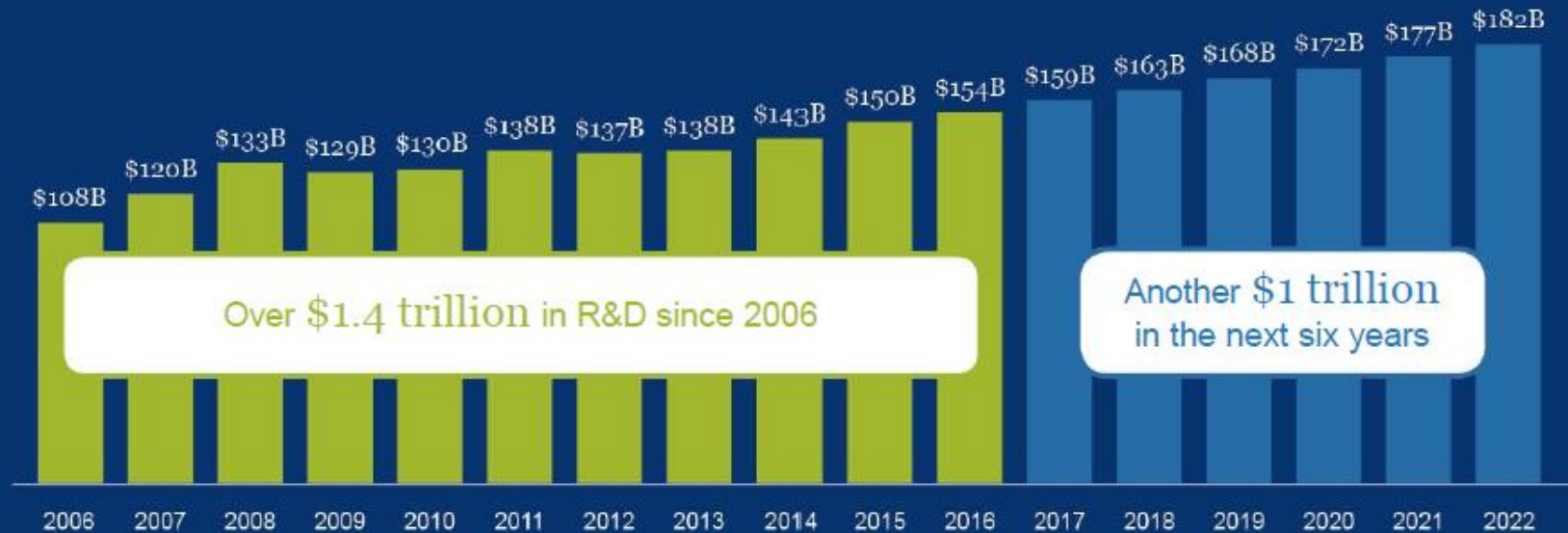
# The Cost to Develop a New Medicine More Than Doubled Over the Past Decade

## Average Cost to Develop an Approved Medicine – Including Setbacks



# Biopharmaceutical Companies Have Invested Billions to Bring Innovative Therapies to Market

## Worldwide Pharmaceutical R&D Investment<sup>1</sup>



Over \$1.4 trillion in R&D since 2006

Another \$1 trillion in the next six years



*“The most important challenge facing the global research community is ensuring that populations regard its contributions as positive, responsible and legitimate. R&D policy is not just about throwing money at scientists and engineers – it is also about ensuring that their innovations can be brought into use, which is a quite different challenge.”*

– DOMESTIC CORPORATION, UK (DECEMBER 2013)<sup>2</sup>

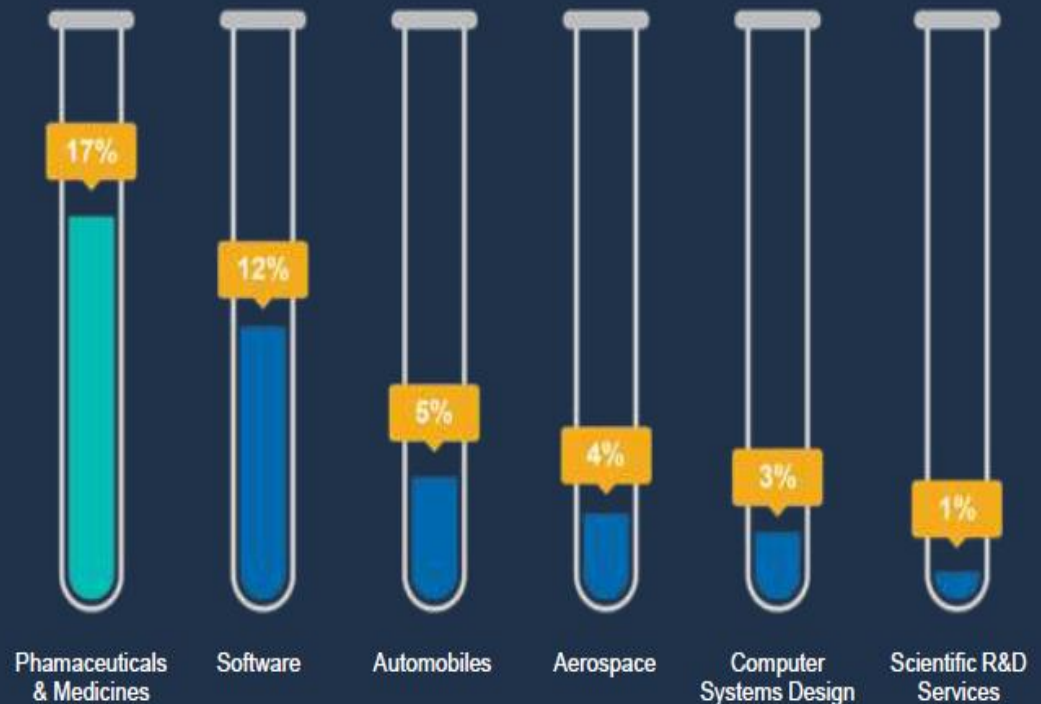
Biopharmaceutical companies use today's revenues to invest in tomorrow's treatments and cures.

Invested about  
**\$75 Billion**  
in R&D in 2015



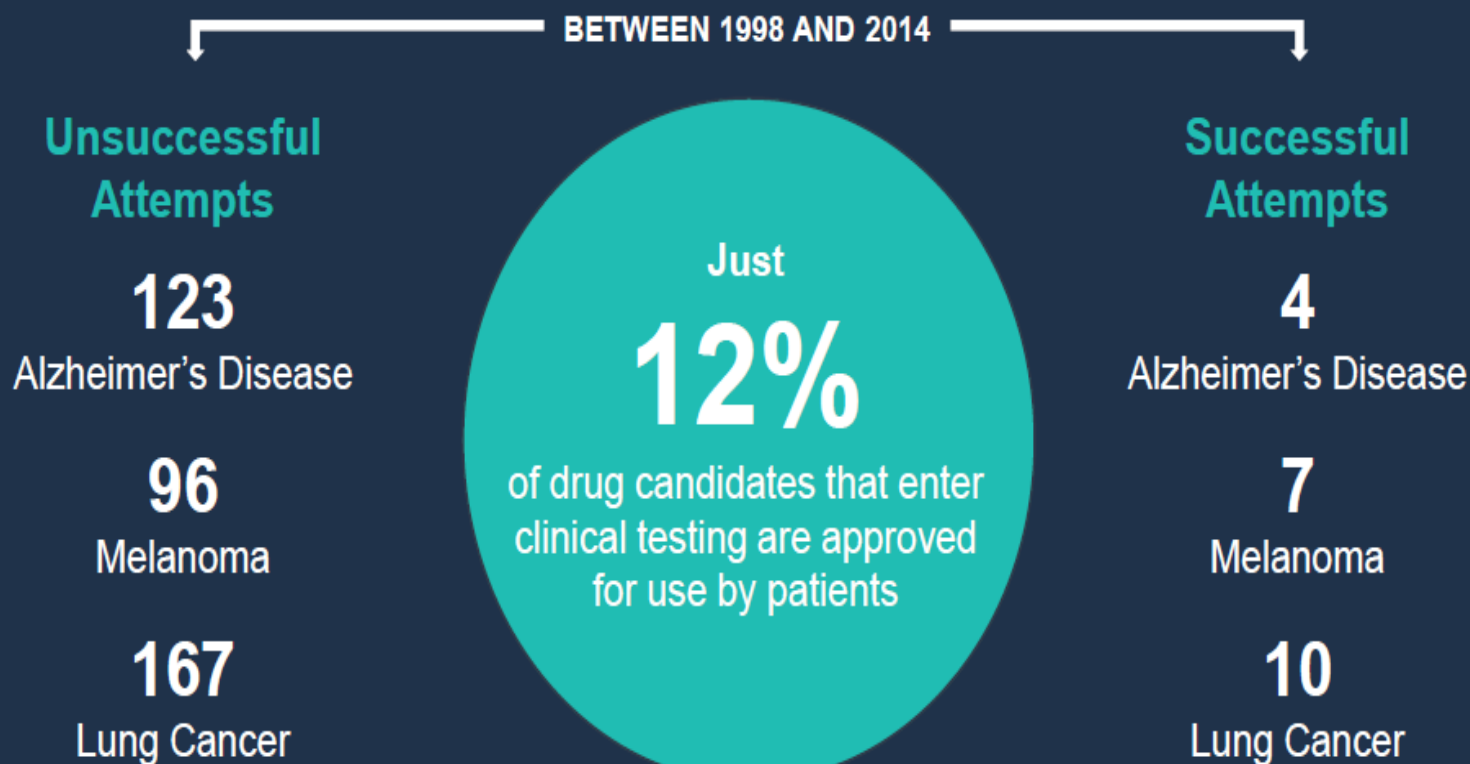
And  
**20%**  
of revenues are reinvested  
into R&D

Industry invests **17%** of all domestic research and development funded by U.S. businesses



We need a public policy environment that recognizes and rewards risk taking.

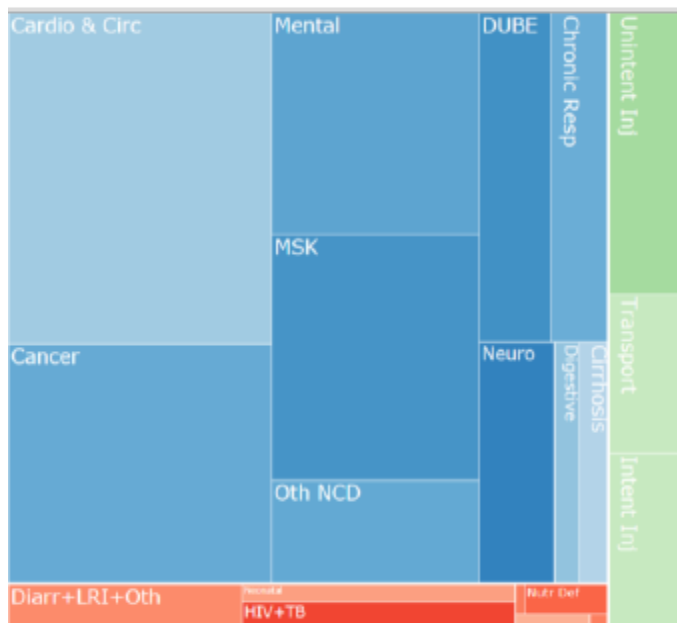
On average, it takes more than  
**10 years and \$2.6B** to research and develop a new medicine.



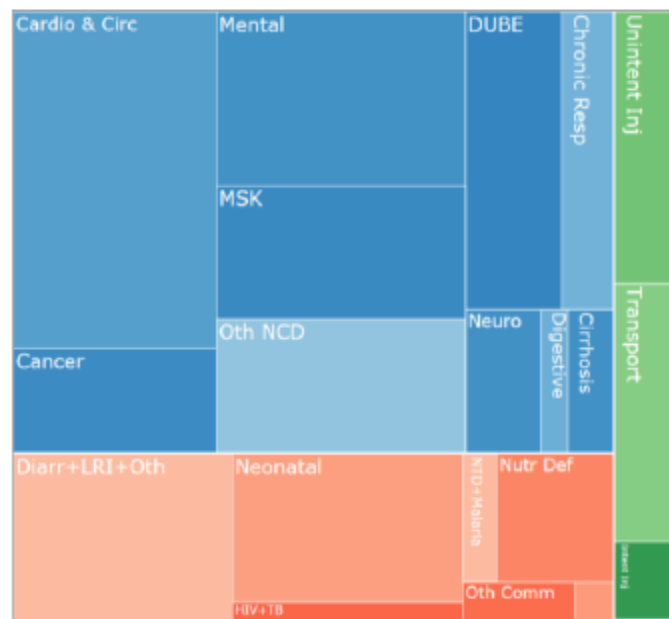
# Communicable disease burden in MENA

**DALY:** Disability-Adjusted Life Year

## Developed markets



## MENA

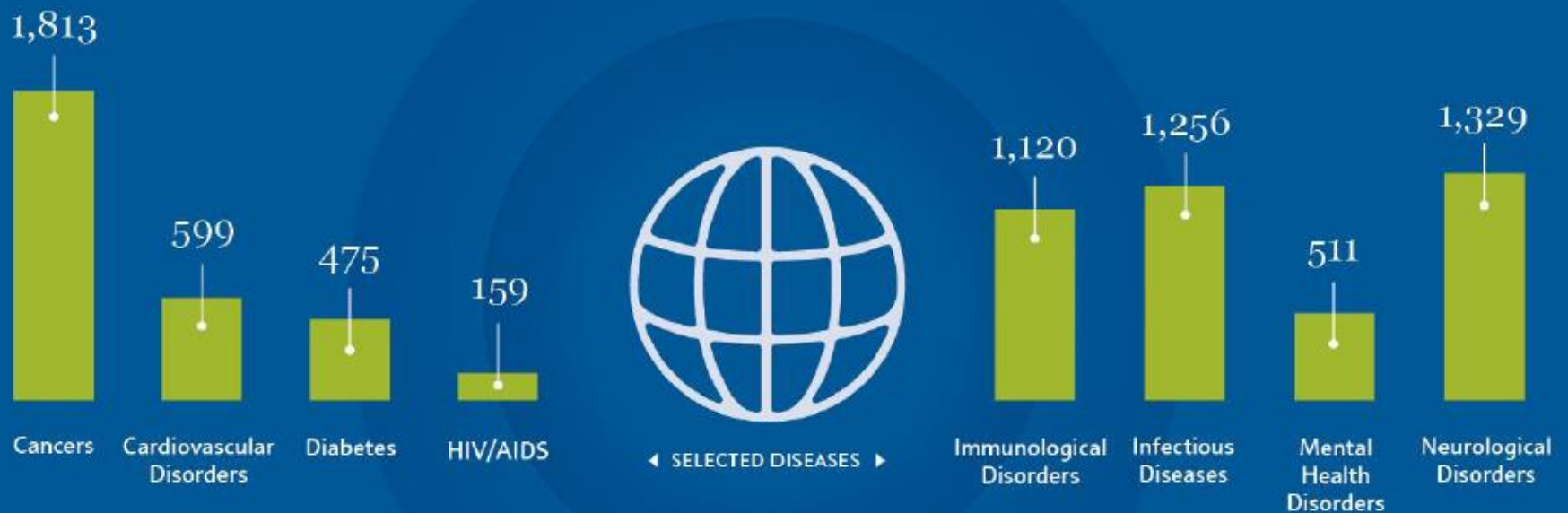


### Annual growth in DALY (%)



# More Than 7,000 Medicines Are in Development Around the World

## Medicines in Development



# We are in a new era of medicine where breakthrough science is transforming care with innovative treatment approaches...

Then



Medicines made of chemical compounds



Medicines treat broad diseases



Radiation and chemotherapy to treat cancer



Now



Medicines made from living cells



Medicines targeted to specific patient based on genetic makeup



Immunotherapy that harnesses body's own immune system to fight disease

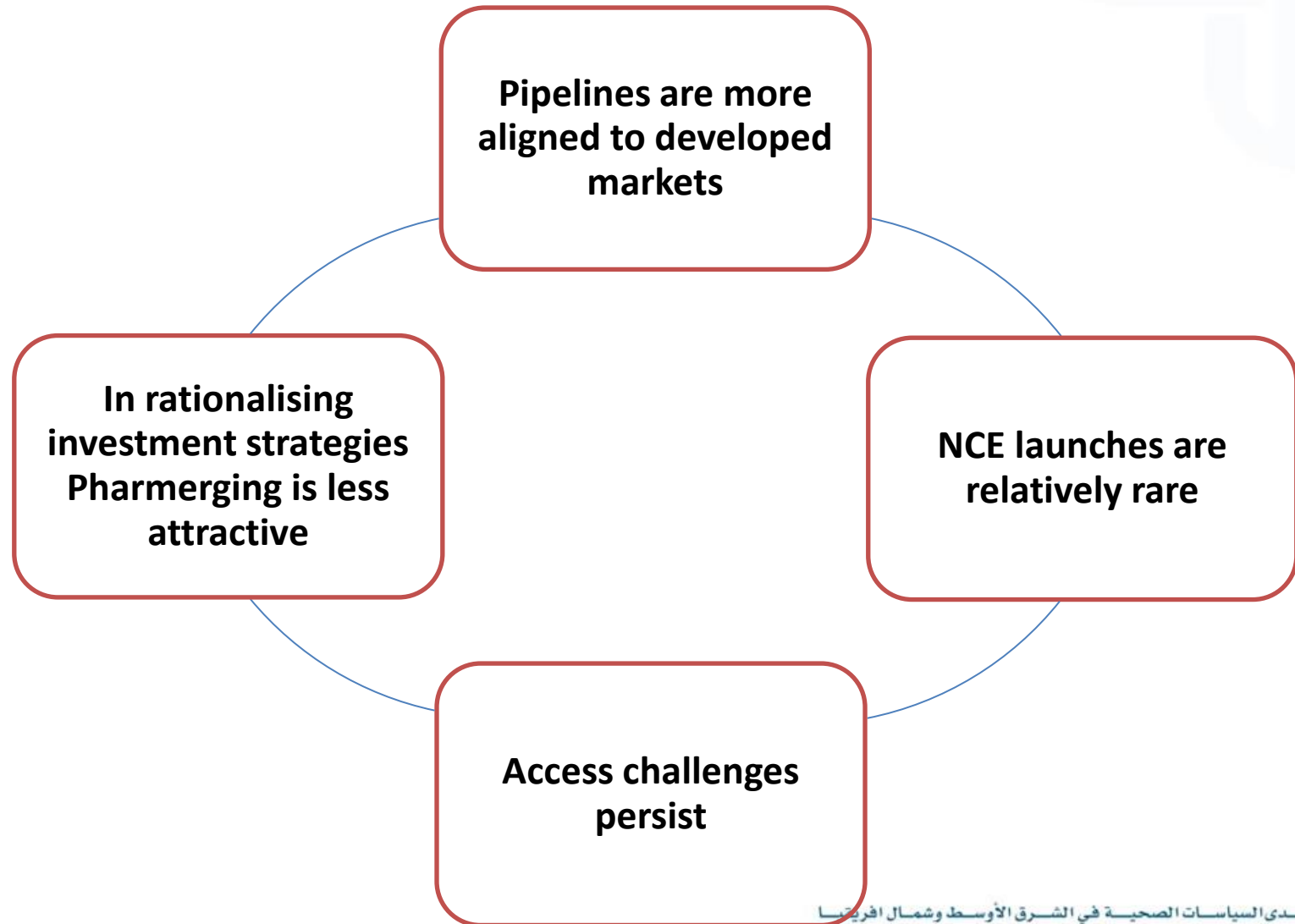


CAR T-cell therapy



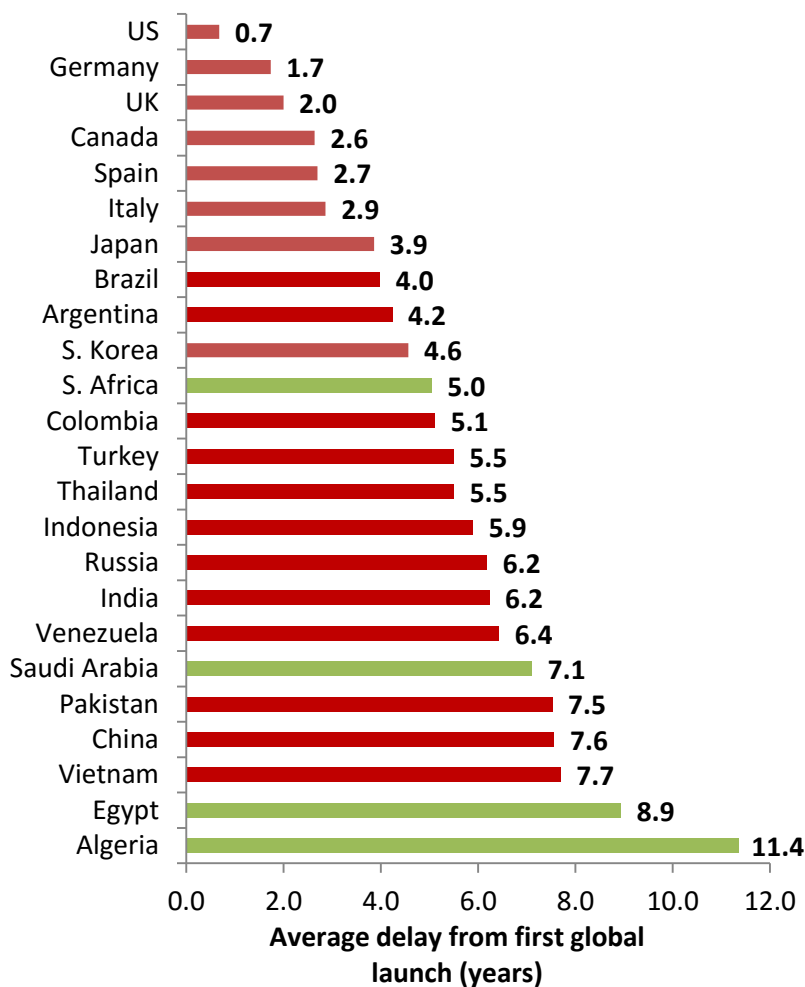
CRISPR

# Pharmerging risks being marginalised as Pharma shifts strategic focus



# Key MEA markets starved of innovation (NCEs)

## Delay between NCE global launch and local launch (Years)



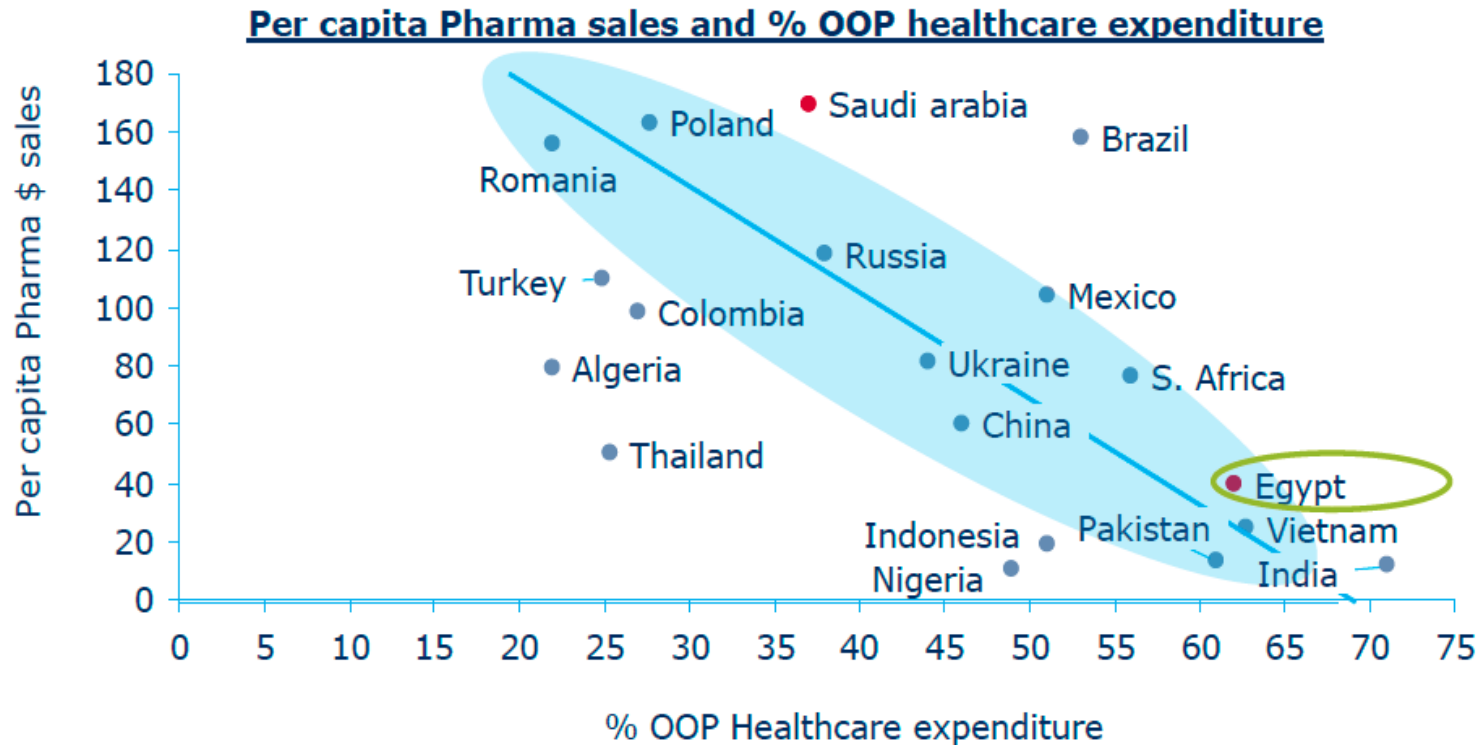
## Top MEA markets NCE Launch

MEA	NCE's launched 2006-2010	NCE's launched 2011-2015
US	90	144
SAUDI ARABIA	13	13
EGYPT	6	9
ALGERIA	2	0
SOUTH AFRICA	18	5
UAE	19	30
MOROCCO	6	2

■ Increase in NCE launches  
■ Decrease in NCE launches



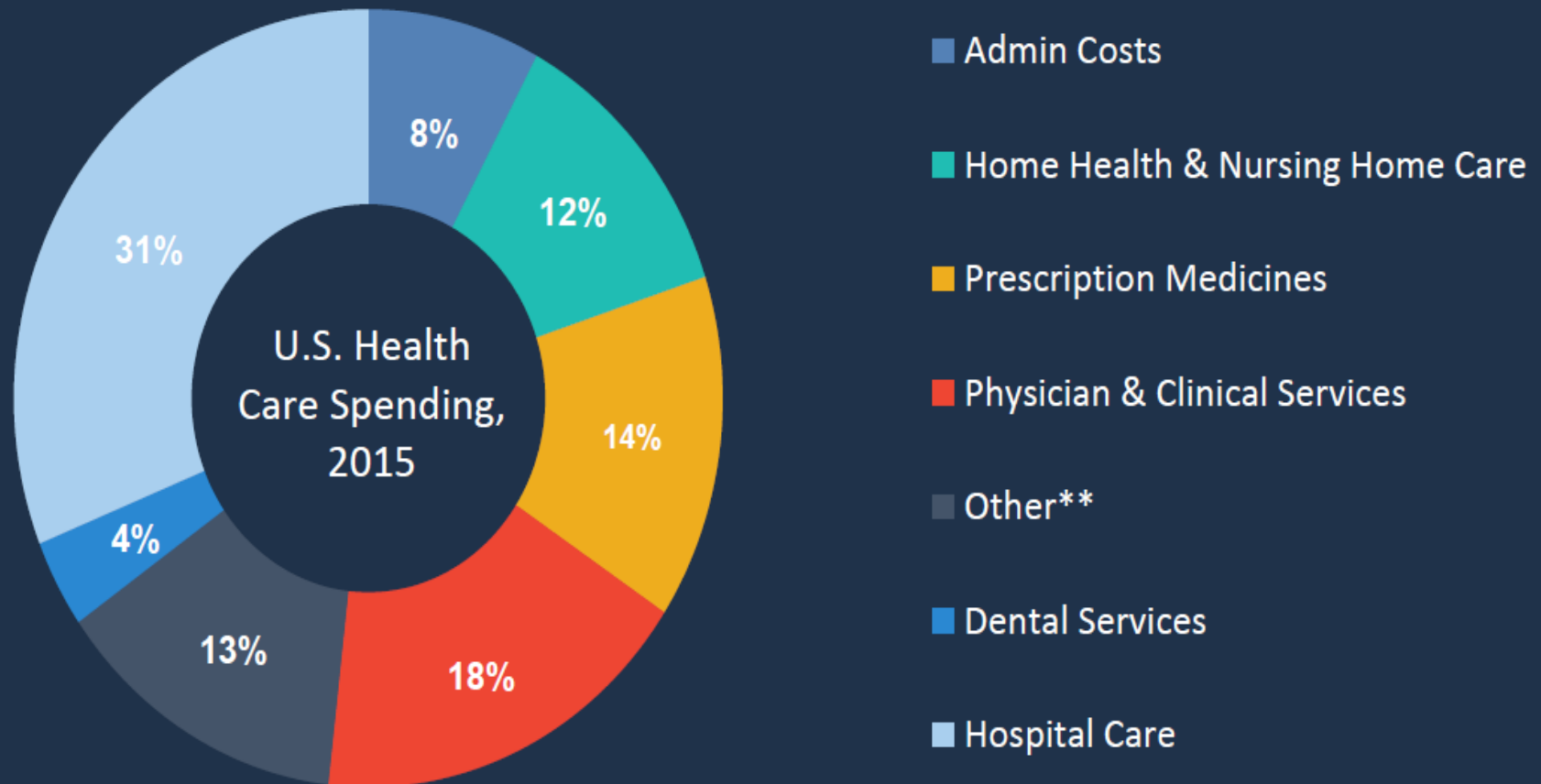
# Lower relative income and higher OOP contributions translates into lower pharma sales in most cases



Source: World Health Organization WHOSIS database; IMS analysis, IMS Global market prognosis 2012-2016



# Spending on retail and physician-administered medicines continues to represent just 14% of spending...



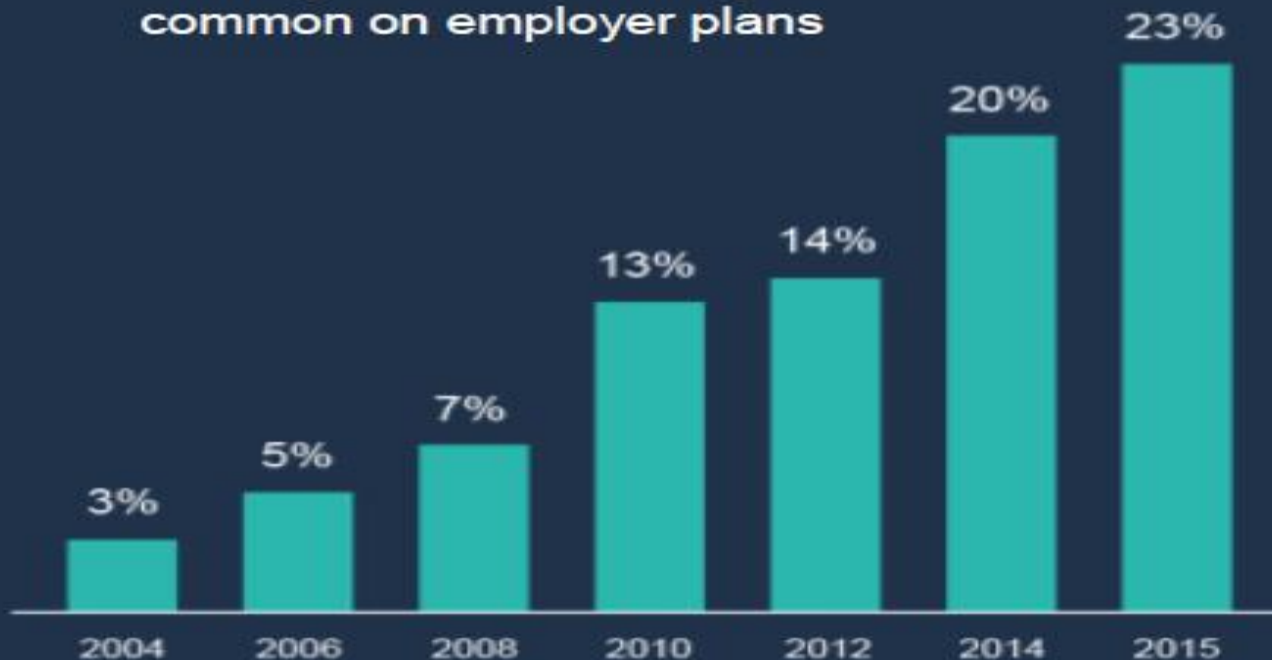
Spending on prescription medicines is a small percentage of total health care spending around the world.



Prescription Medicines as a Percentage of Total Health Care Spending

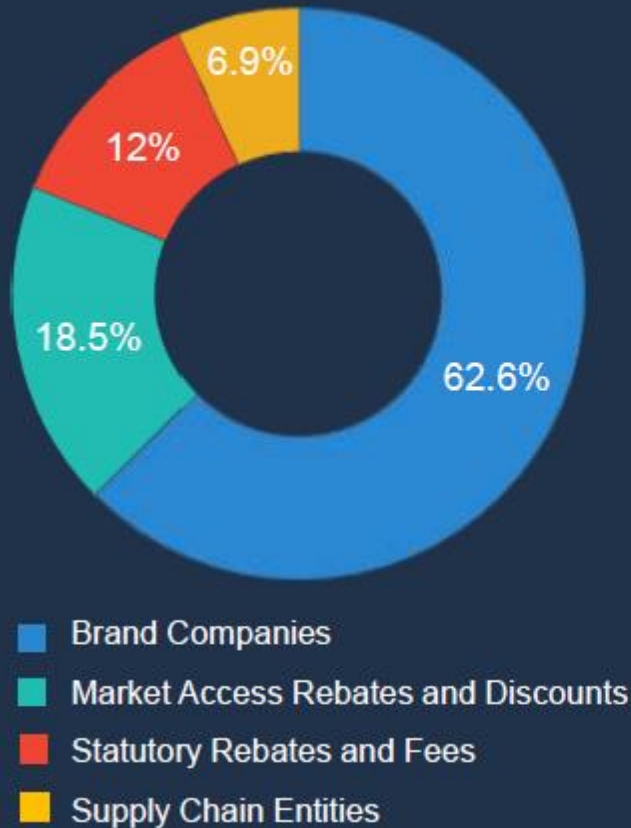
# Patients in the United States are facing rising out-of-pocket costs and other barriers to care.

The use of four or more cost-sharing tiers is becoming more common on employer plans

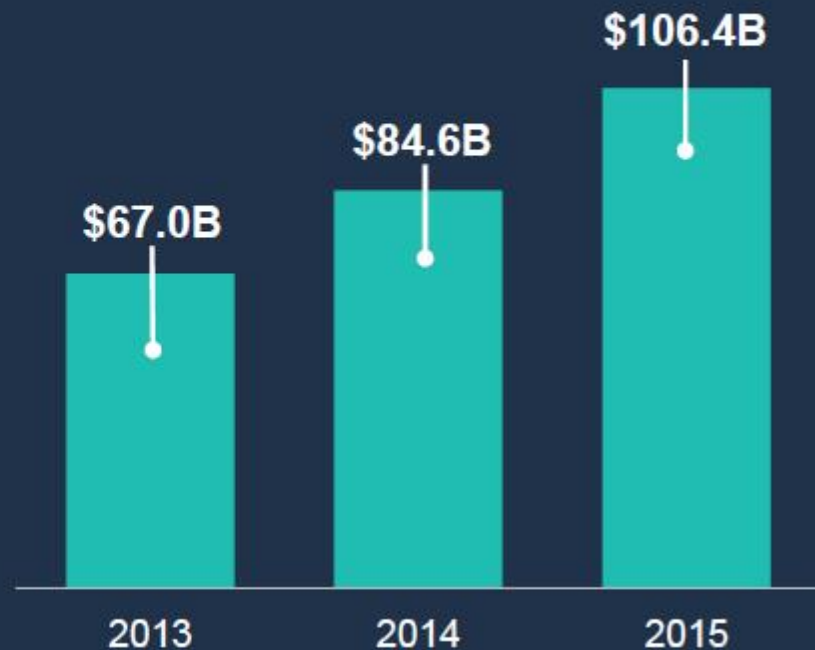


# More than 1/3 of the list price is rebated back to payers in US

Brand companies retain just 63% of list price spending on medicines

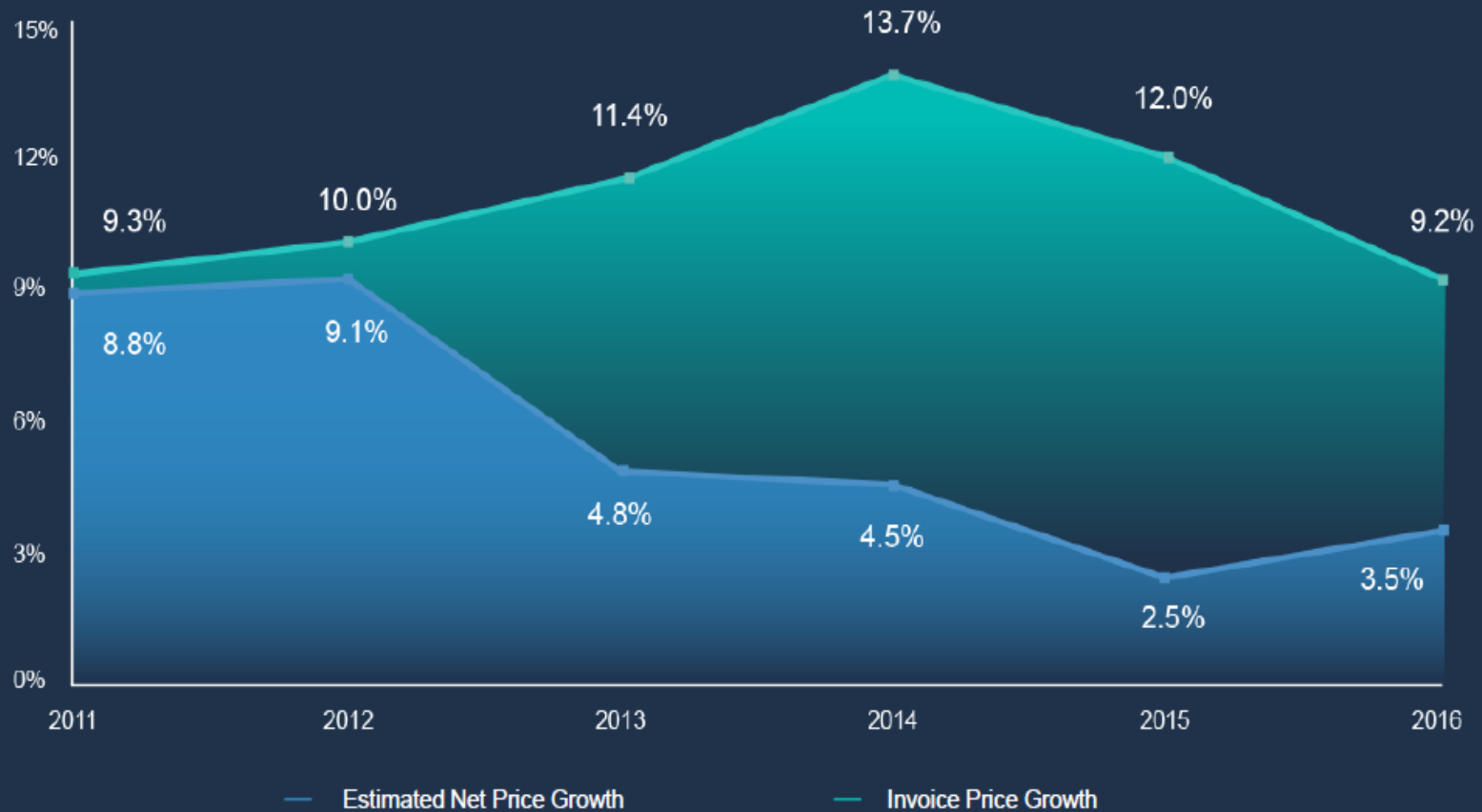


Rebates, discounts and fees keep increasing



Source: Berkeley Research Group.

In fact, after discounts and rebates, brand medicine prices grew just 3.5% in 2016.



# Patients share the costs for their medicines. They should share the savings, too

- **Negotiated discounts for medicines are not shared with patients with high deductibles or coinsurance.** A new analysis from Amundsen Consulting found more than half of commercially insured patients' out-of-pocket spending for brand medicines is based on the full list price.
- **Insurers should share more of these rebates with patients.** Providing access to discounted prices at the point-of-sale could dramatically lower patients' out-of-pocket costs.

**Your insurer doesn't pay full price for medicines.**

**So why do you?**  
Patients share



# Reforms can make medicines more affordable and accessible.



## MODERNIZE THE DRUG DISCOVERY AND DEVELOPMENT PROCESS

- Modernize the authorities to keep pace with scientific discovery and increase efficiency of generic approvals
- Promote and incentivize generic competition.



## EMPOWER CONSUMERS AND LOWER OUT-OF-POCKET COSTS

- Provide patients with access to negotiated rebates.
- Address affordability challenges in the deductible.
- Make more information on health care out-of-pocket costs and quality available to patients.



## PROMOTE VALUE-DRIVEN HEALTH CARE

- Remove barriers restricting information companies can share with insurers.
- Reform regulations discouraging companies from offering discounts tied to outcomes.



# END



# At a macro level MENA is not the largest but it has attractive growth rates

