



DELIVERING FOR PATIENTS IN TODAY'S HEALTHCARE ENVIRONMENT

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Pioneering science delivers vital medicines[™]

THE CHALLENGE IS CLEAR

**BIOTECHNOLOGY
REVOLUTION**



**FOCUS ON
SHORT-TERM
SPENDING**

WE NEED TO ADDRESS THE RISING COST OF THE MOST COMMON DISEASES...

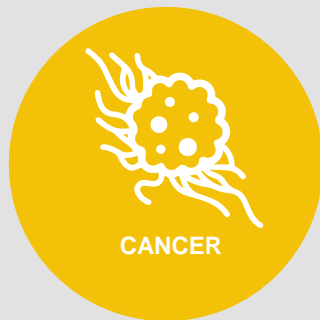


CARDIOVASCULAR
DISEASE

#1 KILLER

in the U.S. with 1 DEATH
EVERY 40 SECONDS¹

Cardiovascular disease is
estimated to cost the U.S.
more than \$800B by 2030¹



CANCER

2nd

LEADING CAUSE
OF DEATH in the U.S.²

Every 1% reduction in the
long-term cancer-related death
rate yields \$500B for society³



ALZHEIMER'S
DISEASE

5.3 MILLION

AMERICANS IMPACTED⁴

Projected to cost more
than \$450B by 2030
& \$1.1T by 2050⁵

1. Mozaffarian D, et al. *Circulation*. 2015 Jan 27;131(4):e29-322; 2. Fast Facts: Leading Causes of Death. CDC Website. 2016. 3. Murphy KM, Topel RH.. *J Political Econ*. 2006;114(5):871-904; 4. Alzheimer's Association.. *Alzheimers Dement*. 2015 Mar;11(3):332-384; 5. Changing the Trajectory of Alzheimer's disease: How a Treatment by 2025 Saves Lives and Dollars. Alzheimer's Association. 2015.

...AND MEDICINES THAT ARE PART OF THE SOLUTION TO INCREASING HEALTHCARE SPENDING



INNOVATIVE
MEDICINES

=



HEALTH CARE
SPENDING

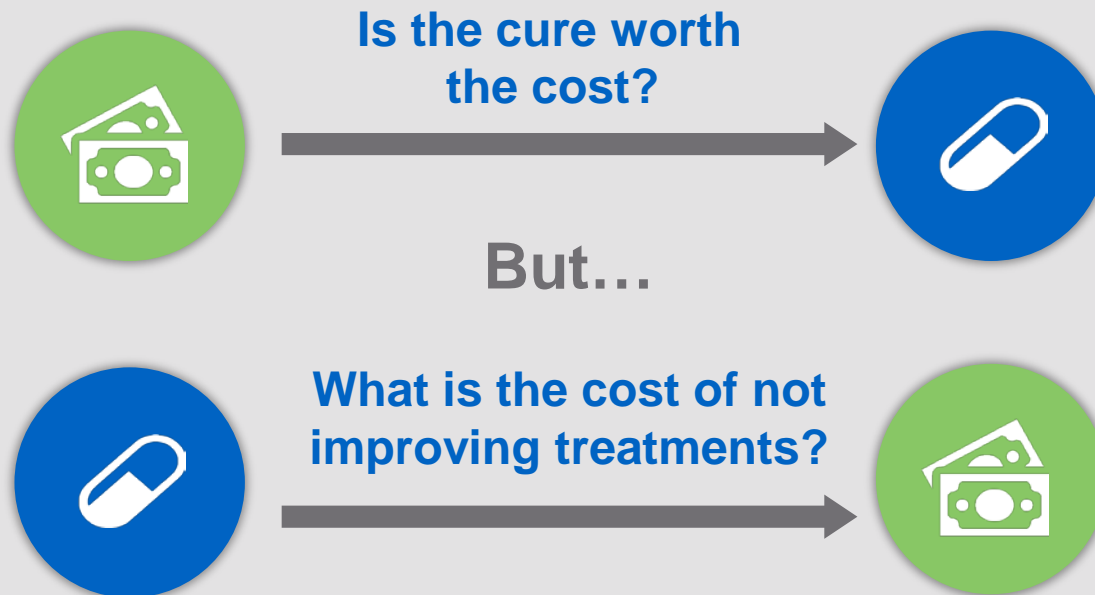
\$3-\$10

Savings generated on ER visits and inpatient hospitalizations for additional dollar spent on medicines for patients with congestive heart failure, high blood pressure, diabetes and high cholesterol¹

Congressional Budget Office Includes Medical Cost Offsets Due to Prescription Drugs in Medicare²

1. Roebuck, C et al. HEALTH AFFAIRS 30, NO. 1 (2011): 91-99, Project HOPE—The People-to-People Health Foundation, Inc.. 2. CBO. Offsetting Effects of Prescription Drug Use on Medicare's Spending for Medical Services. Report, November 29, 2012.

WHAT IS THE REAL COST DEBATE?



DRUG SPENDING IN PERSPECTIVE

Need Focus on Rising Healthcare Costs

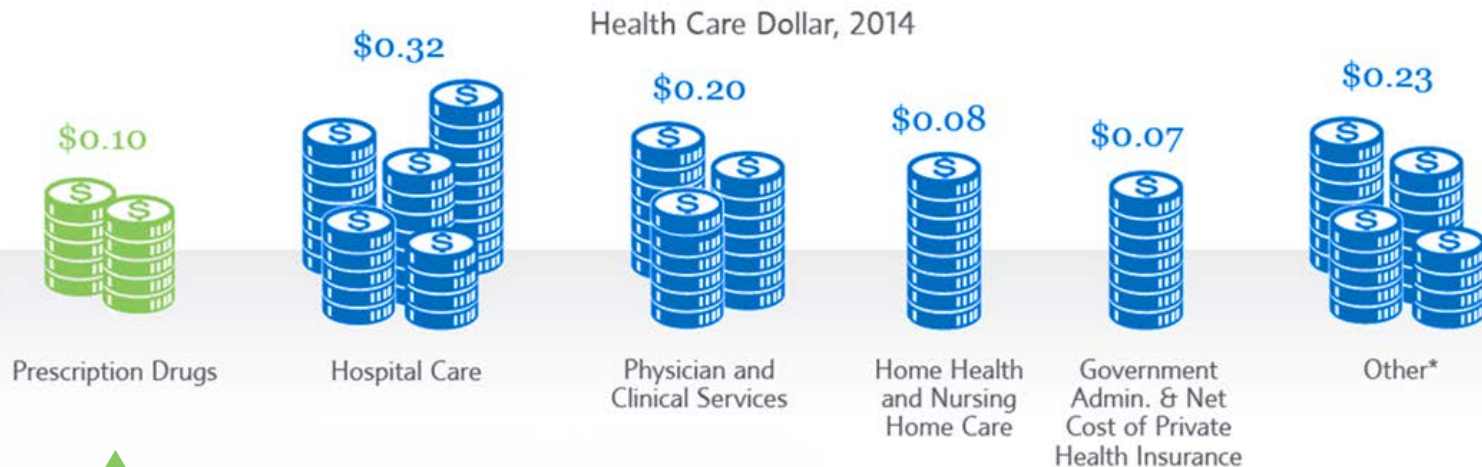
- Demographic Shifts
- Rising Burden of Disease
- Rising patient cost-sharing
- \$972 billion, or 6 percent of gross domestic product, spent on hospital care in 2014
- \$765B annual healthcare waste
- \$428B in pharmacy-related waste
- \$375B in Insurance Administrative Costs
- \$340B in low value care

Recent Focus on Drug Spending

- Looking at increasing trend without examining benefits delivered
- Evaluating prices in absence of value delivered and negotiated prices
- Focus on 3-4% of patients requiring high cost biologics
- Short-term budget pressures impacting long-term investments in health
- Issues with the Supply Chain

DRUG SPENDING ACCOUNTS FOR JUST 10%-14% OF TOTAL HEALTHCARE SPENDING IN THE U.S.

Retail spending on prescription medicines is
A SMALL SHARE OF TOTAL U.S. HEALTH CARE SPENDING



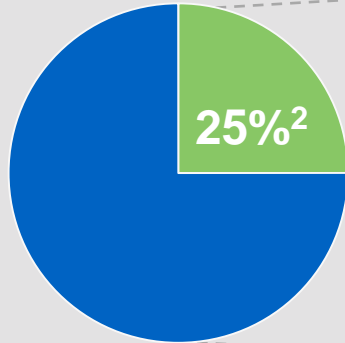
Even with the inclusion of specialty medicines, estimated prescription drug spend is ~14% of total healthcare spending

1. CMS. National health expenditures by type of service and source of funds, CY 1960-2013. Baltimore, Md.: CMS; 2013.

*Other includes dental, professional services, medical equipment, residential and personal care expenditures as well as public health activity, research, and structures/equipment.

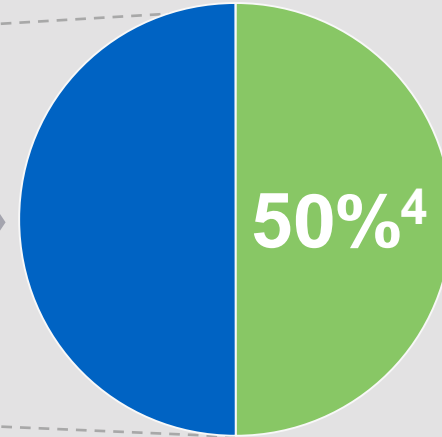
AND THIS SPENDING GROWTH IS EXPECTED AT 6% COMPOUND ANNUAL GROWTH RATE (CAGR) THROUGH 2018

2014 Pharmaceutical Spending
\$374B¹



Overall Drug Spending
Projected to Grow at 6%³

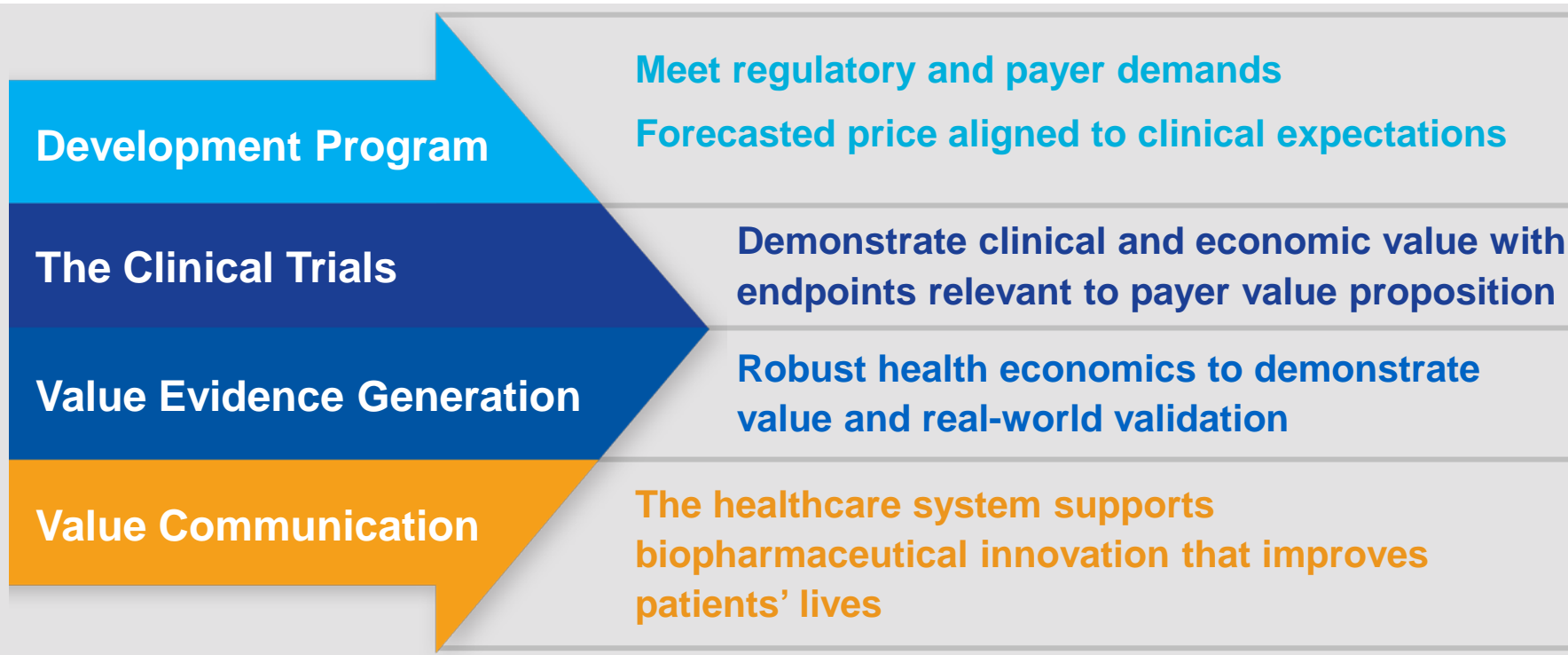
2018 Pharmaceutical Spending
\$450B



Specialty Medicines Address Greatest Unmet Needs and/or High Cost Diseases⁴

1. Medicine Use and Shifting Costs of Healthcare: A Review of the Use of Medicines in the U.S. in 2014. IMS. April 2015; 2. The Growth of Specialty Pharmacy. Current trends and future opportunities. UnitedHealth Group. April 2014; 3. National Health Expenditure Projections 2012-2022. CMS. 2015; 4. Specialty Drugs Are Forecasted to be 50 Percent of All Drug Expenditures in 2018. Prime Therapeutics. April 23, 2013.

DEVELOPING PRODUCTS WITH COMPELLING CLINICAL AND ECONOMIC VALUE



A HOLISTIC VIEW OF THE VALUE OF MEDICINES

 Clinical/Humanistic

 Societal

Improve longevity
Reduce disease suffering
Reduce complications
Improve quality of life
Improve patient experience
Ability to lead normal life

PATIENTS DESERVE MORE APPROPRIATE METHODS FOR VALUE ASSESSMENT – NOT ONE SIZE FITS ALL

PATIENTS



Stakeholder
Engagement



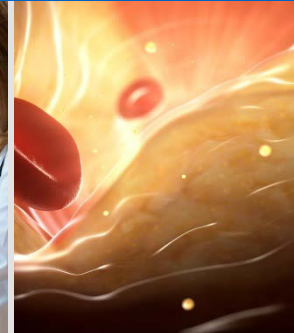
Reality-
Based
Assumptions



Objectivity



Transparency
& Peer Review



Science ≠
Public
Relations

- No single answer
- Budget impact ≠ value
- Static vs Dynamic
- One approach to inform
- Cost-effectiveness thresholds = price control in disguise

AMGEN'S VALUE-BASED PROGRAMS AND PARTNERSHIPS

TRANSACTIONAL SUPPLIER OF
MEDICINES



COLLABORATIVE PARTNER
WITHIN THE HEALTHCARE
SYSTEM

Amgen Examples



*Disease
Management*



*Patient
Identification*



*Pay for
Performance*



*Cost Cap
Guarantee*

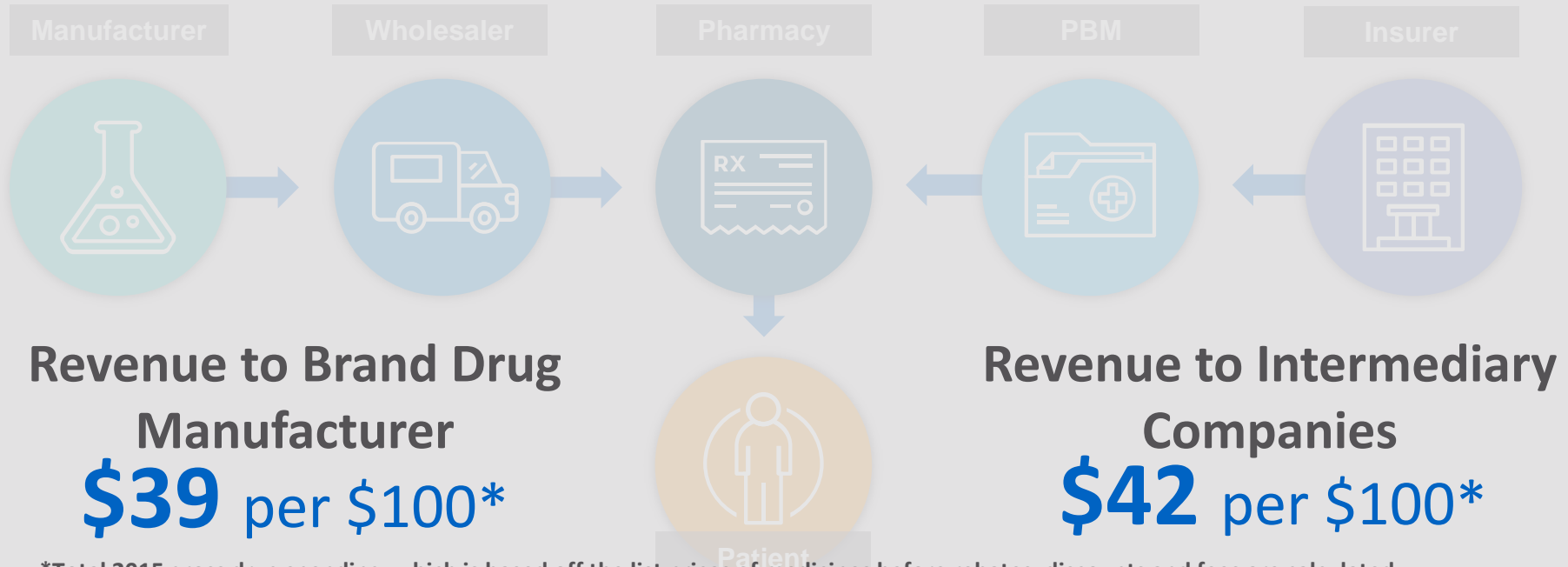


*Strategic
Multi-Disease*



*Care Pathway
Redesign*

WE MUST BETTER UNDERSTAND HOW THE DRUG SUPPLY CHAIN AND RELATES TO THE PRICE OF MEDICINES



*Total 2015 gross drug spending, which is based off the list prices of medicines before rebates, discounts and fees are calculated

WHERE WE MUST FOCUS – PATIENT HEALTH

- Align around advanced methods and approaches to value—balanced conversation
- Enable value-based partnerships through policy reform
- Ensure pharmaceutical benefit designs are non-discriminatory and value-based
- Ensure a robust, competitive generic marketplace to support the innovation ecosystem
- Ensure that payers don't usurp the role of the FDA and of physicians
- Align incentives

