ONCOLOGY DRUG PRICING: A REVIEW OF CURRENT TRENDS AND THE IMPACT ON CANCER CARE

Philip Schwieterman PharmD, MHA

Director of Oncology and Pediatric Pharmacy

UK HealthCare and Markey Cancer Center

Lexington, Kentucky

KNOWLEDGE ASSESSMENT

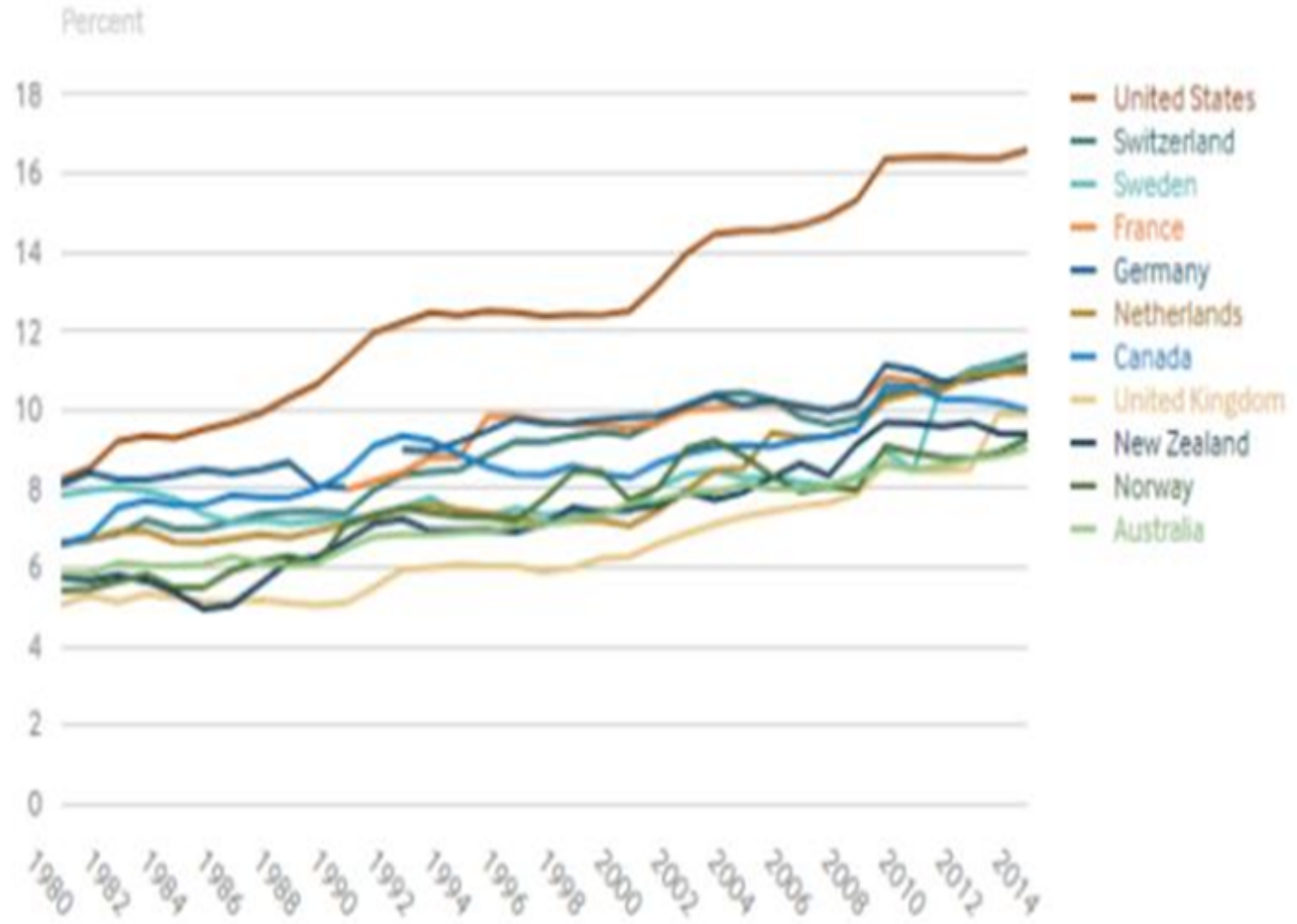
- ICE
- SPIN
- GLEE
- ACC
- PRIM
- CHIME
- MAC
- ICER
- SPINRAZA
- GLEEVEC
- ACCREDO
- DARAPRIM
- CHIMERIC ANTIGEN RECEPTOR T-CELLS
- MACRA

OBJECTIVES AND OVERVIEW

- Discuss the USA's rising cost for medications that treat cancer
- Review how these rising costs are impacting
  - Providers
  - Health Plans, Payers, Insurance Companies
  - Patients
- Discuss how the above groups, as well as legislative bodies are responding

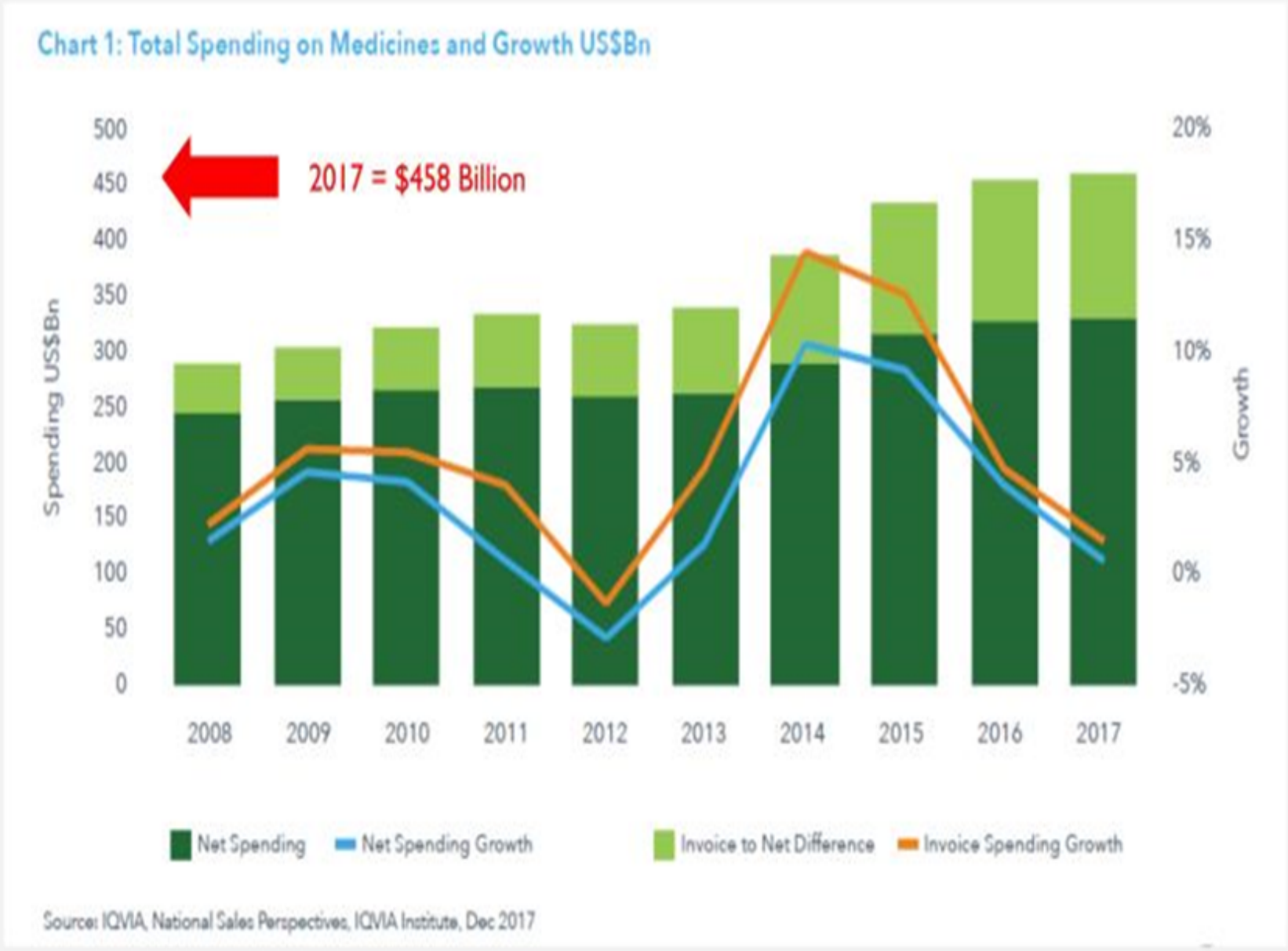
COST AND UTILIZATION TRENDS

Exhibit 1. Health Care Spending as a Percentage of GDP, 1980–2014



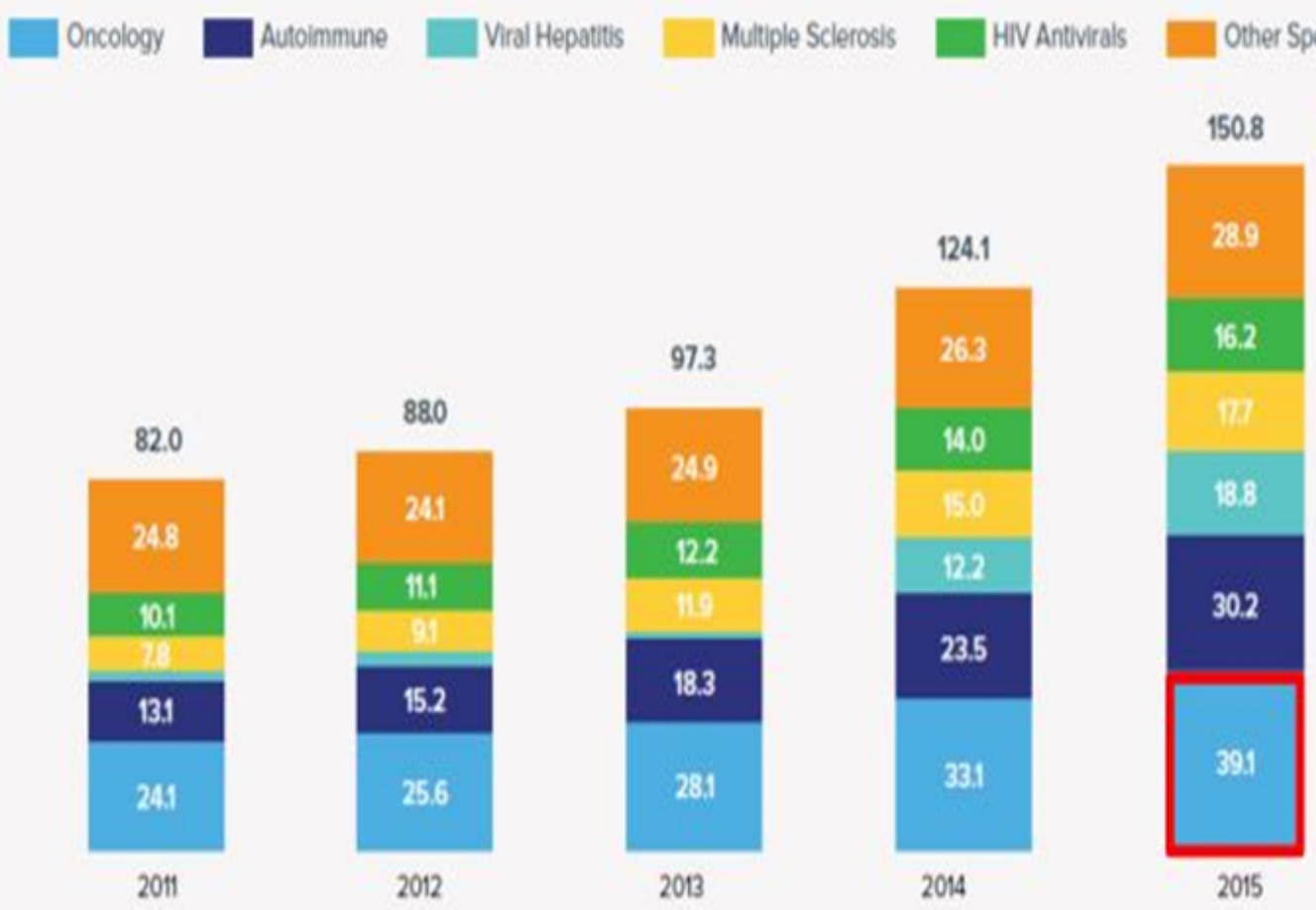
Bort, Ryan. How Bad is U.S. Health Care? Among High-Income Nations, It's the Worst, Study Says. Newsweek October 2018. https://www.newsweek.com/united-states-health-care-rated-worst-637114

COST AND UTILIZATION TRENDS



COST AND UTILIZATION TRENDS

Chart 8: Spending on Specialty Medicines US$Bn



2017:

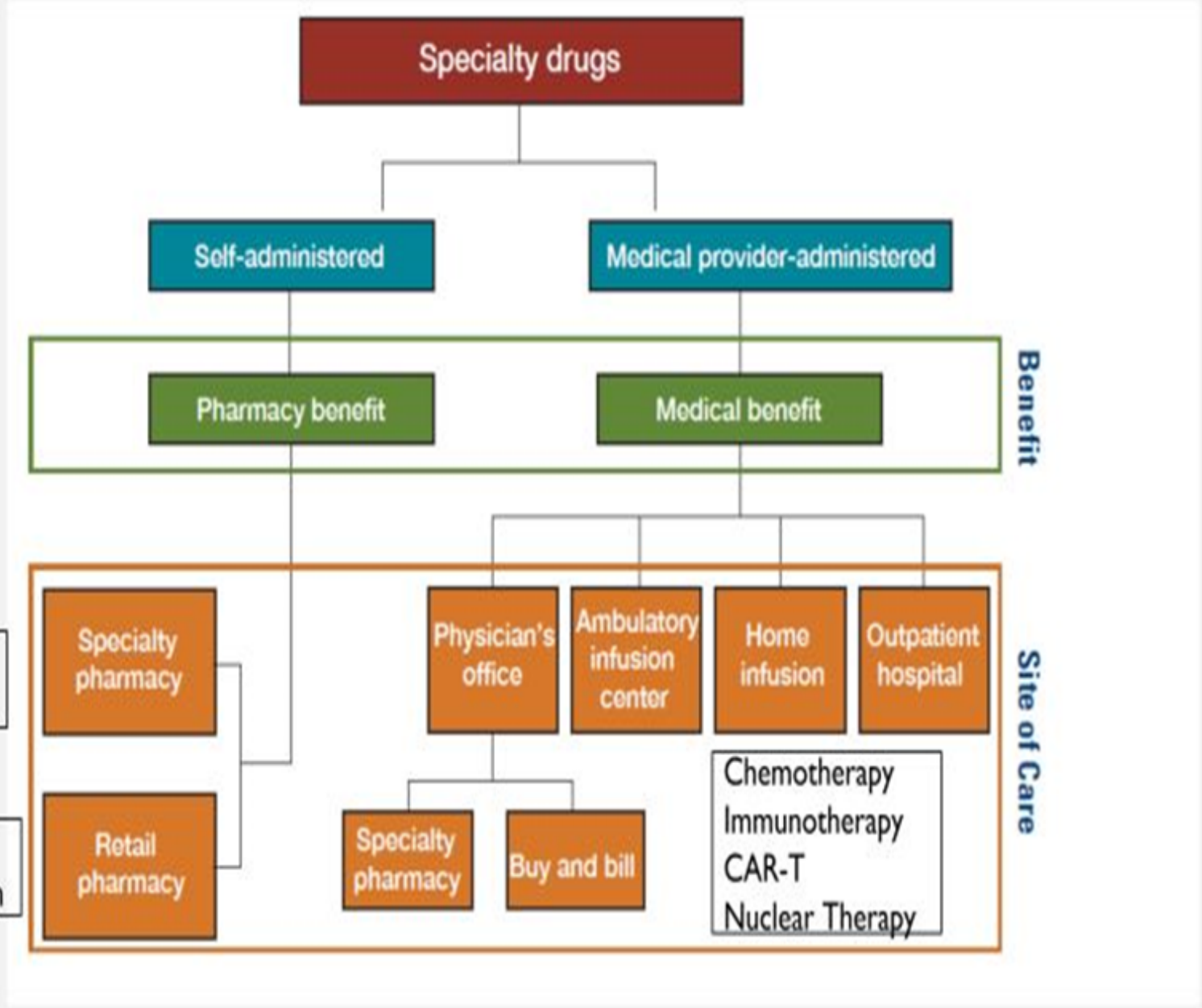
Total Drug Cost $458b
Specialty Drug Cost $208b
Oncology Drug Cost = $50b

Source: IMS Health, National Sales Perspectives, Jan 2016

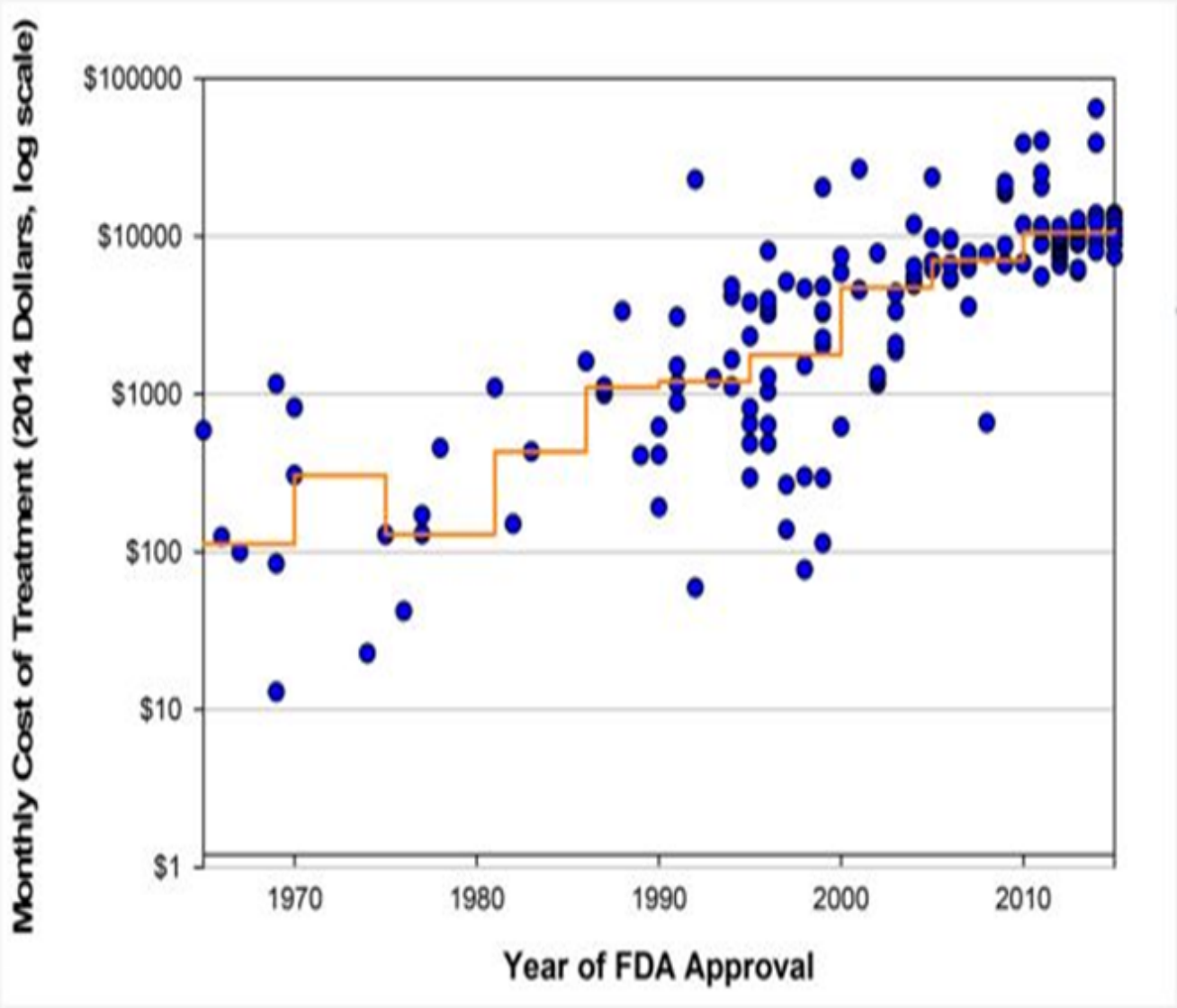
Chart 29: Oncology New Active Substances By Year of First Launch in the United States

Source: IQVIA Institute, Mar 2018

ONCOLOGY DRUGS-HOW ARE THEY PROVIDED?

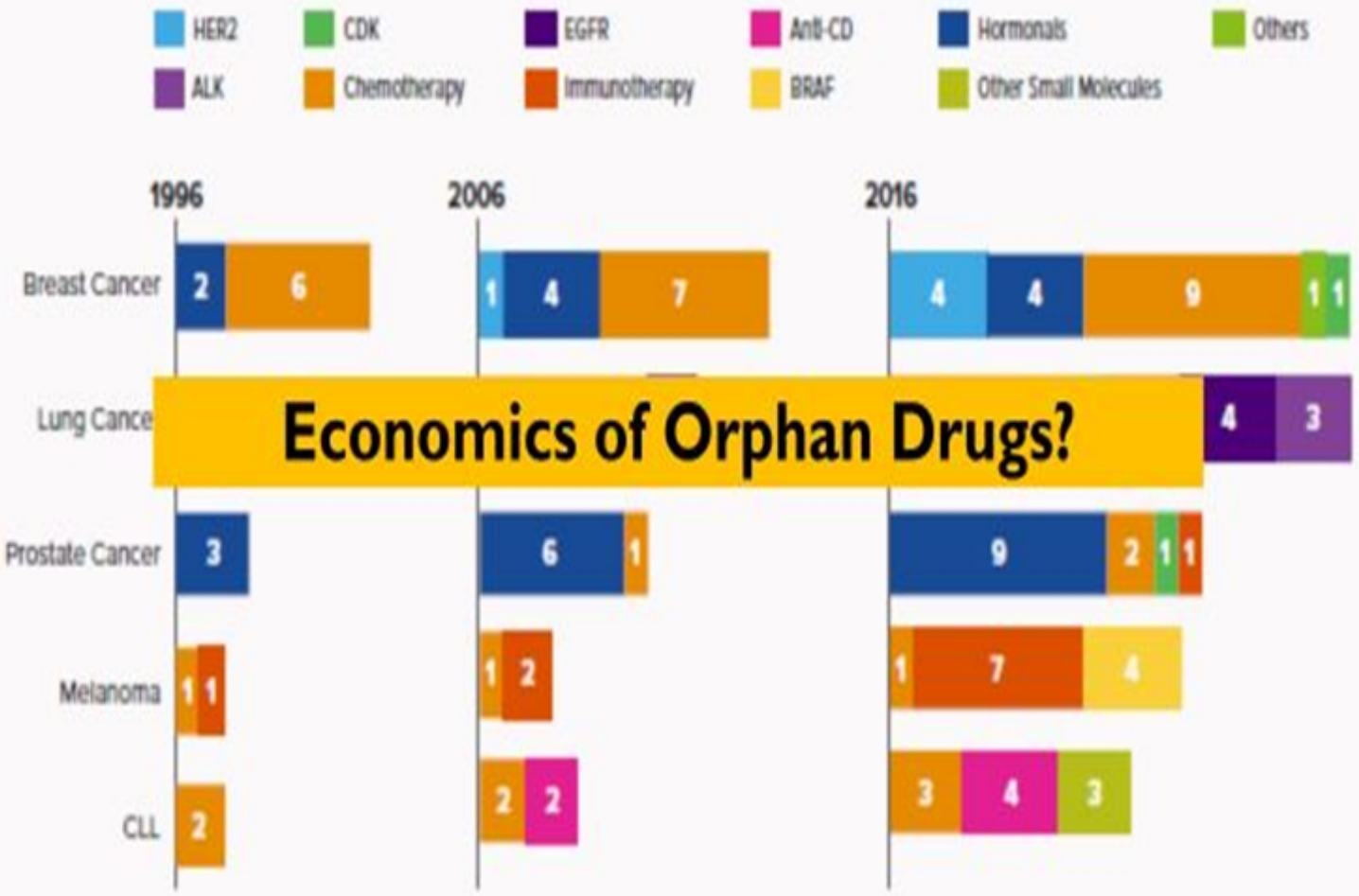


DRUG COST (1965-2015)



Source: Peter B. Bach, MD, Memorial Sloan-Kettering Cancer Center

Chart 14: Number of Treatment Options over Time for Selected Tumors (1996–2016)



Source: DrugsatFDA, Feb 2017; QuintilesIMS, ARK R&D Intelligence, Feb 2017; QuintilesIMS Institute, Mar 2017

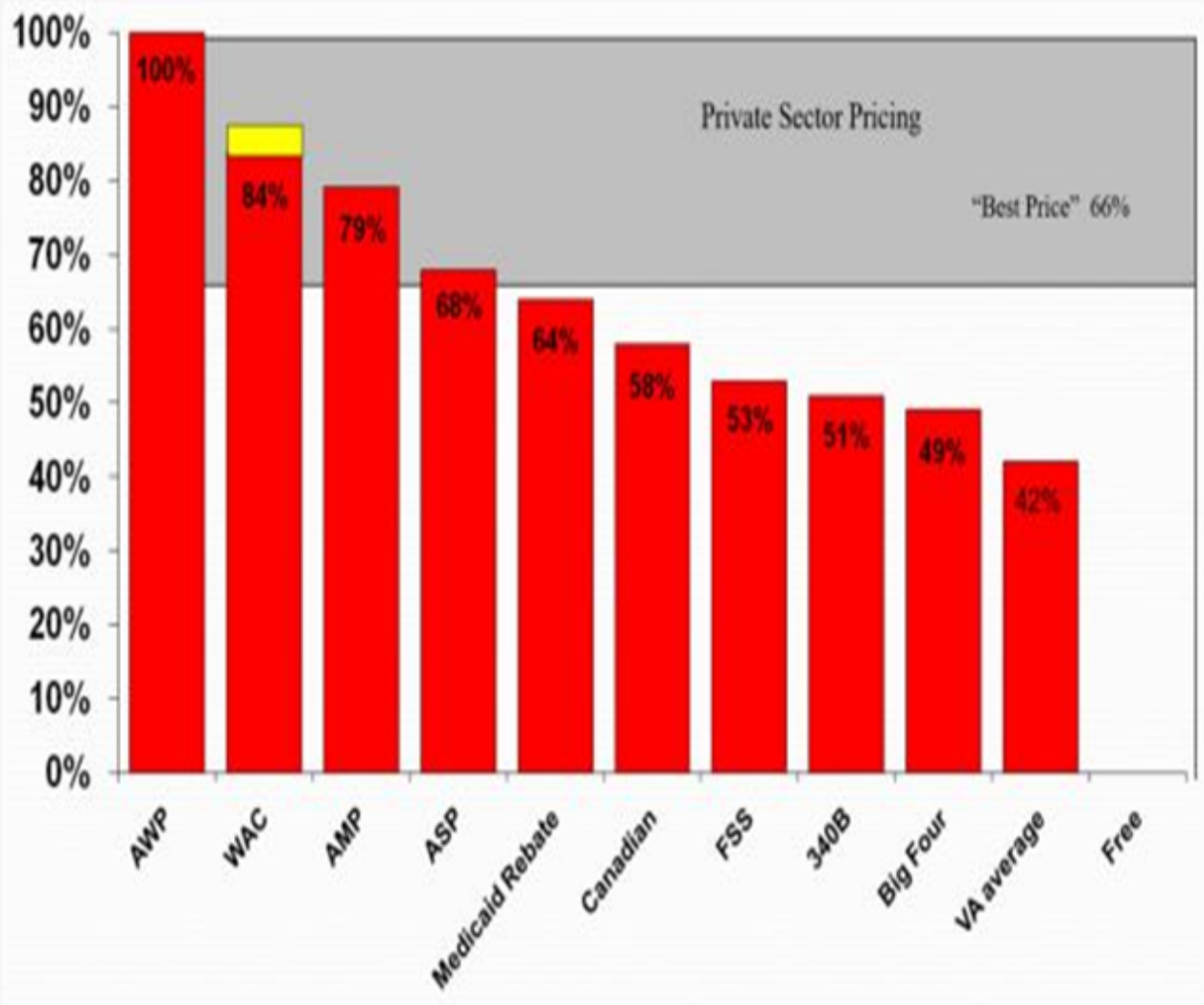
ONCOLOGY DRUG PRICING: TARGETABLE AGENTS

Generic	Brand	Cost AWP*
Afatinib	Gilotrif®	$9,060
Axicabtagene Ciloleucel	Yescarta®	$373,000 / therapy
Blinatumomab	Blincyto®	$124,600 / cycle
Crizotinib	Xalkori®	$18,349
Dabrafenib	Tafinlar®	$11,581
Dacomitinib	Vizimpro	$13,888
Ibrutinib	Imbruvica®	$14,615
Inotuzumab Ozogamicin	Besponsa®	$26,000 / cycle

Brand	Generic	Cost AWP*
Moxetumomab Pasudotox-tdfk	Lumoxiti®	$30,000 / cycle
Nivolumab	Opdivo®	$7,551/dose
Lutetium Lu 177 Dotatate	Lutahtera®	$53,000/dose
Pembrolizumab	Keytruda®	$11,326/dose
Tisagenlecleucel	Kymriah®	$373 - $425k / therapy
Trametinib	Mekinist®	$12,573
Vemurafenib	Zelboraf®	$6,076

*Average Wholesale Price (AWP):
-Oral, based on a 28 day supply for a typical dose
-Does not represent actual cost to pharmacy, payer, or patient

US PRICING COMPARISONS

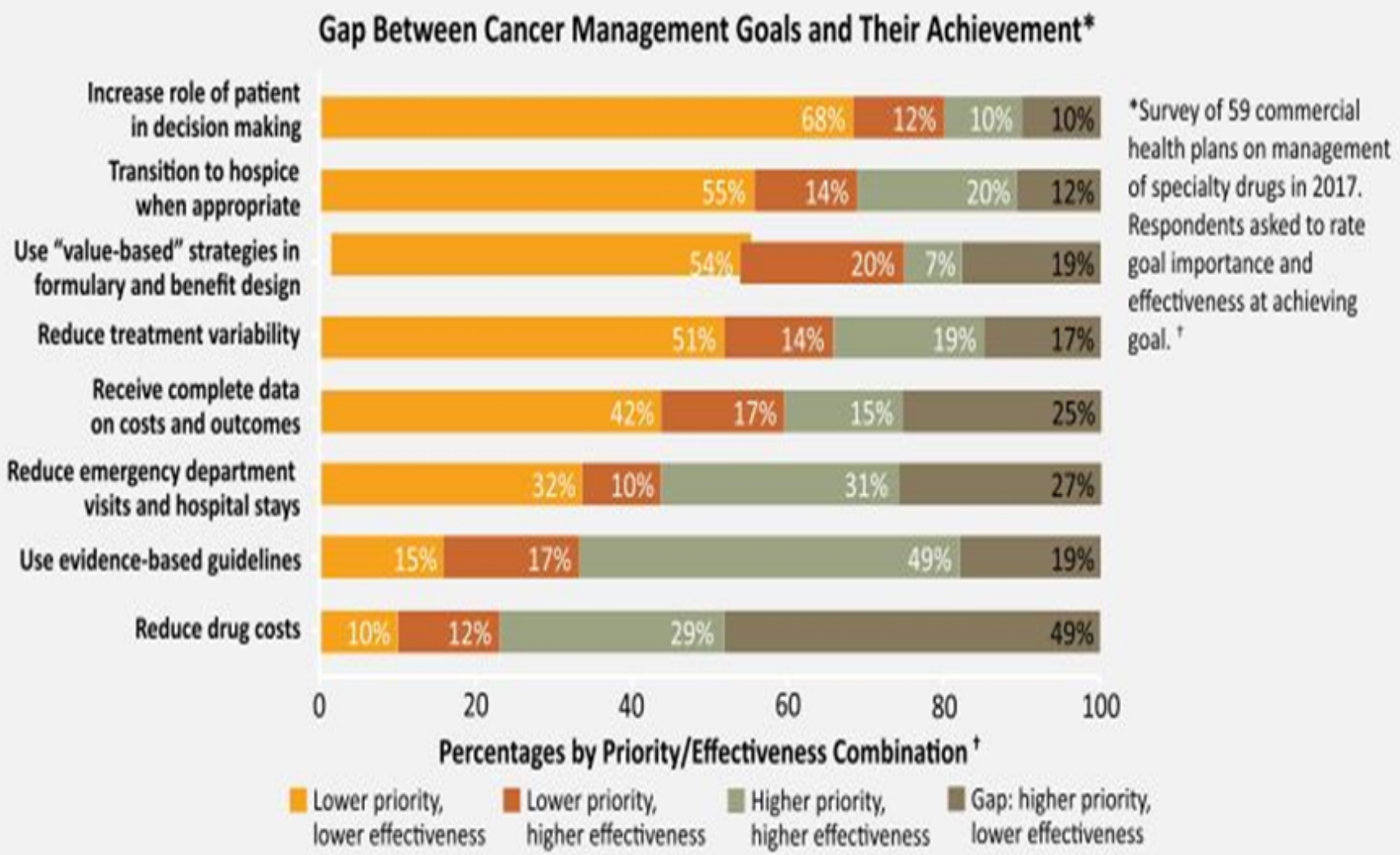


- Average Wholesale Price
- Wholesale Acquisition Cost
- Average Manufacturer Cost
- Average Salese Price
- Federal Supply Schedule
- Big Four = Dept of Defense, Coast Guard, Veteran's Affair (VA) and 340B)

Data derived from Prices for Brand-Name Drugs Under Selected Federal Program. Congressional Budget Office (June 2005); Pharmaceutical Discounts under Federal Law: State Program Opportunities, William H. von Oehsen (May 2001)

PAYER'S RESPONSE

PAYER'S RESPONSE - SURVEY



EMD Serono. EMD Serono Specialty Digest™, 14th edition. 2018.

PAYER'S RESPONSE: ACTION ITEMS

- Commercial
  - Value-based models
    - Build incentives into cost-effective care
    - Capitated markets
  - Clinical Pathways
    - Payer driven vs provider driven
  - Prior authorizations
  - Site of care policies
- Government Payers
  - Medicaid Managed Care
  - Medicare Centers for Innovation: Population Health and Utilization Control
    - MACRA
    - Oncology Care Model
    - CMS payment cuts
    - 340B payment cuts for Disproportionate Share Hospitals

PAYER'S RESPONSE: 340B

- Background information on 340B
  - A government drug pricing program created in 1992
  - Designed to allow health care providers to purchase drugs at a reduced cost *if* they treat a high amount of Medicare, Medicaid, uninsured, and other underserved patient populations
  - Generally the 340B cost is 20 - 30% cheaper than alternative contracted prices
- Center for Medicare and Medicaid Services
  - Currently reimburse infusions through the Part B Benefit at Average Sales Price +6%
  - For several 340B institutions, have changed the reimbursement to ASP -22.5%
  - Estimated $1.6 Biillion in savings are supposed to be distributed to all hospitals

https://www.federalregister.gov/documents/2016/03/11/2016-05459/medicare-program-part-b-drug-payment-model.

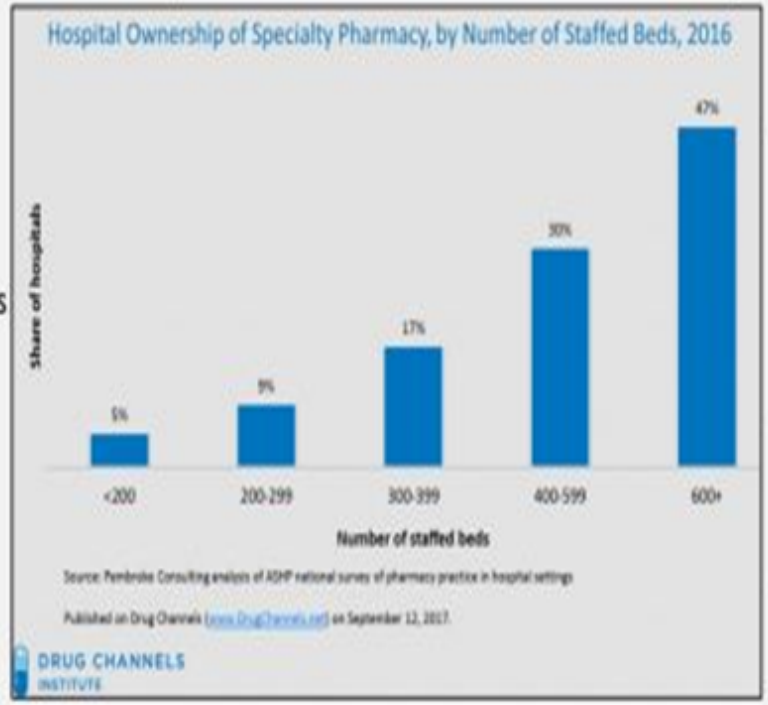
PROVIDER'S RESPONSES

- Patient Financial Counseling
- Drug Price Assessment Tools
  - Drug Abacus
  - ICER
- Partnering with Payers:
  - Fee For Value
  - Clinical Pathways
  - Proposed Payment Models
  - Insource services
- Revenue Cycle Support

PATIENT-CENTERED ONCOLOGY PAYMENT

Payment Reform to Support
Higher Quality, More Affordable Cancer Care

May 2015



MACRA MIPS

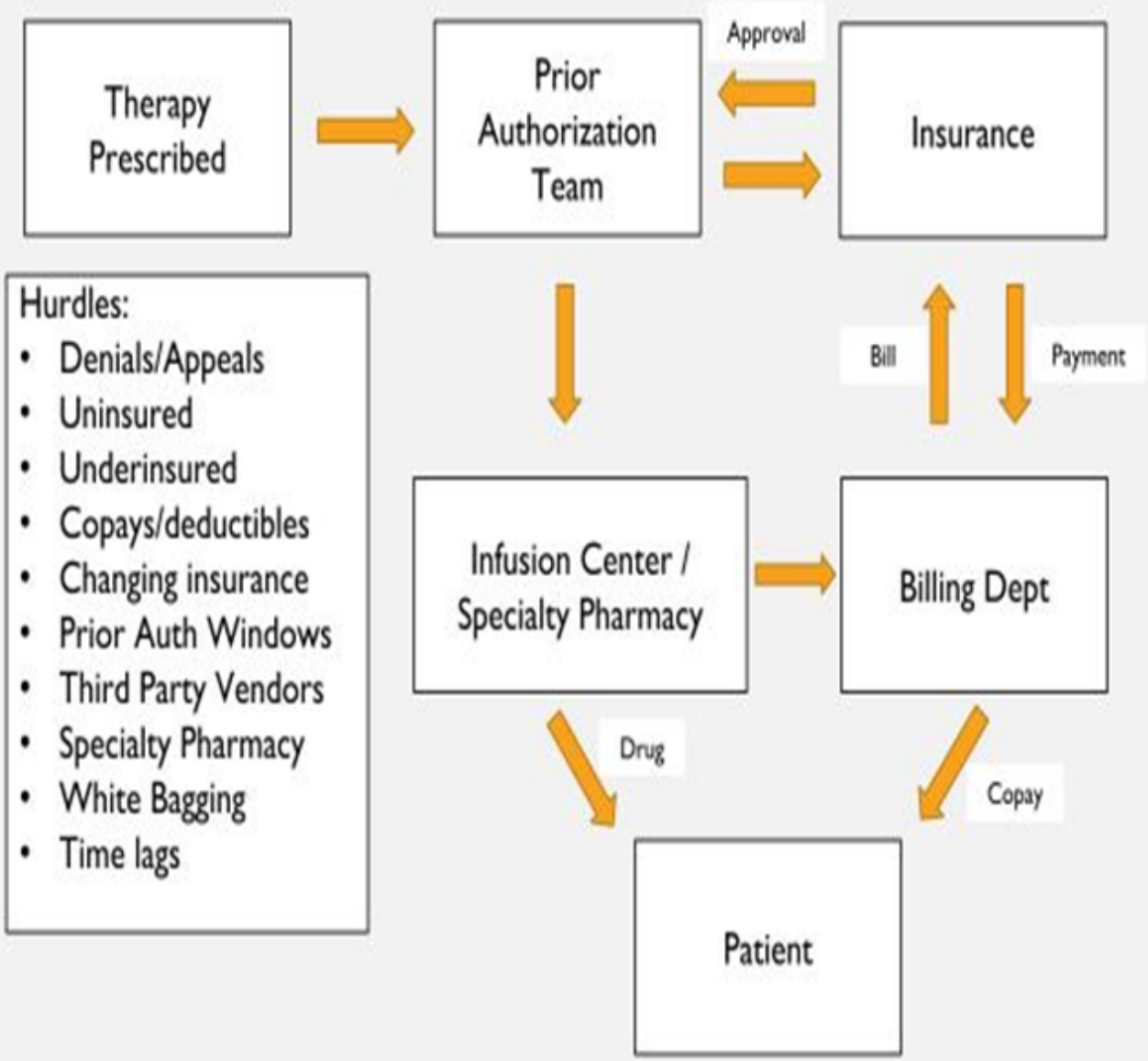
Quality
30%
Replaces PQRS.

Improvement Activities
15%
New Category.

Advancing Care Information
25%
Replaces the Medicare EHR Incentive Program also known as Meaningful Use.

Cost
30%
Replaces the Value-Based Modifier.

PROVIDER'S RESPONSE: REVENUE CYCLE



THE PATIENT'S RESPONSE

- Average monthly drug cost (2015) = $15,535 (1)
- 23% of patients with cancer postponed care due to cost (2)
- By 2030, the average family of four will spend $50,500, out of pocket, for health care annually (3)

1) "Global Oncology Trend Report." A Review of 2015 and Outlook to 2020". IMS Instituate for Healthcare Informatics 2016.
2) Zheng Z et al., "Do cancer survivors change their prescription drug use for financial reasons? Finding from a nationally representative sample in the United States." Cancer, 123 (2017): 1453 – 11463.
3) Health Care and the North Sea: A Dangerous Crossing. https://newsroom.vizientinc.com/vizient-blog/operations/health-care-and-north-sea-dangerous-crossing Accessed November 4, 2018

GOVERNMENT'S RESPONSE

Comparison of U.S. and International Prices for Top Medicare Part B Drugs by Total Expenditures

October 25, 2018

Executive Summary

The prices charged by drug manufacturers to wholesalers and distributors (commonly referred to as ex-manufacturers prices) in the United States are 1.8 times higher than in other countries for the top drugs by total expenditures separately paid under Medicare Part B. U.S. prices were higher for most of the drugs included in the analysis, and U.S. prices were more likely to be the highest prices paid among the countries in our study.

https://aspe.hhs.gov/system/files/pdf/259996/ComparisonUSInternationalPricesTopSpendingPartBDrugs.pdf Accessed 10/31/18

GOVERNMENT'S RESPONSE

https://prescancerpanel.cancer.gov

GOVERNMENT'S RESPONSE

- **Know the Lowest Price Act and Patient Right to Know Drug Cost Act**
  - Allows pharmacy to tell the patient what has a lower cost:
    - Copay through Insurance
    - Avoid running through insurance and just pay out of pocket
  - Signed into law Oct 2018
- **CREATES Act of 2018**
  - Increase Cost Transparency of Pharmacy Benefit Manager's
  - Include Drug Prices on Television Commercials
  - Increase Competition with generic manufacturer's
- Increase utilization of Biosimilars (Affordable Care Act)

https://www.upi.com/Top_News/US/2018/05/11/Trump-seeks-to-make-pharmaceutical-companies-competitive-lower-drug-prices/3431526048458/.

SUMMARY

- The US spends more than any other country on health care, with only mediocre outcomes
- Costs of cancer medications increase about 10% every year with 2017 incurring $50Billion in total costs. This is fueled by a wave of innovative therapies centered around targetable, immune, or molecular-focused therapies.
- Novel therapies have a small pool of candidates, so manufacturers need to claw back Research and Development costs by charging higher prices
- In the US, the cost of a patient's life is considered to be around $150-$300,000 per year. Drug pricing is reflected in this. Prices are what the market will bear, but sustainability is in question
- The provision of cancer care involves multiple parties, each with their own, often contrasting, goals.
- The US does not negotiate with manufacturer's on drug costs. This is a contributing factor to why their costs are1.8 times more than other countries

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