The IMS Institute is now the IQVIA<sup>™</sup> INSTITUTE for Human Data Science

### 2018 and Beyond: Outlook and Turning Points

Barclays Healthcare Payors, Providers & Supply Chain Summit Tuesday Sep 25<sup>th</sup>, 2018

Michael Kleinrock, Research Director

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#### **IQVIA Institute for Human Data Science**

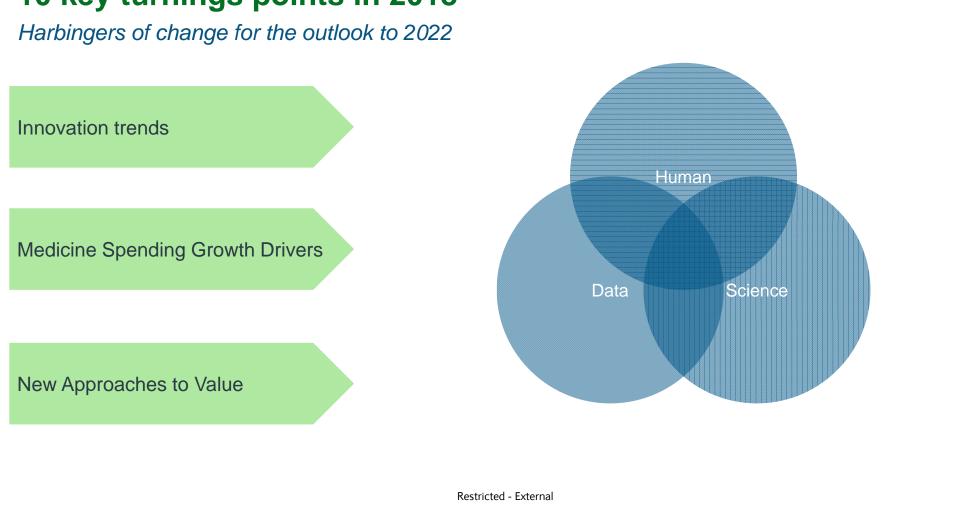
The IQVIA Institute for Human Data Science contributes to the advancement of

human health globally through timely research, insightful analysis and scientific

expertise applied to granular non-identified patient-level data.

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Harbingers of change for the outlook to 2022



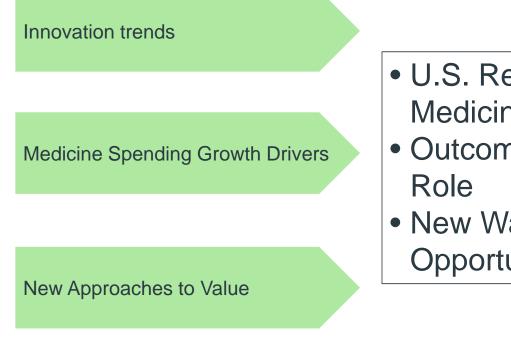
- Real-World Data Use in Clinical Practice Guided by FDA
- Next Generation Biotherapeutics move toward mainstream
- Apps Make Their Way into Treatment guidelines
- Telehealth Usage Surges

Harbingers of change for the outlook to 2022



- Branded Medicine Spending in Developed Markets Falls
- Specialty Medicines Drive All Spending Growth in Developed Markets
- Slower Growth in China and Other Pharmerging Markets

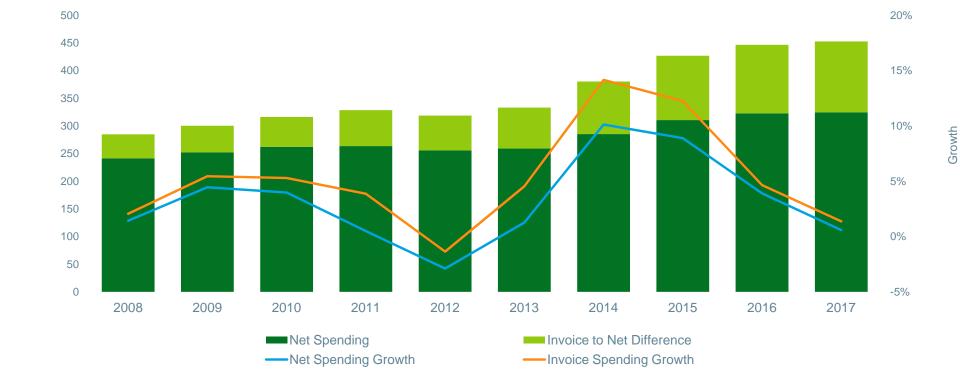
Harbingers of change for the outlook to 2022



- U.S. Real Net Per Capita Spending on Medicines Steadies
- Outcomes-Based Contracts Find Limited Role
- New Wave of Biosimilar Market Opportunities Emerges

# Medicine Growth in the United States Slowed to 0.6% in 2017 on a Net Basis

Total Spending on Medicines and Growth US\$Bn



Source: IQVIA, National Sales Perspectives, IQVIA Institute, Dec 2017

Restricted - External

Spending US\$Bn



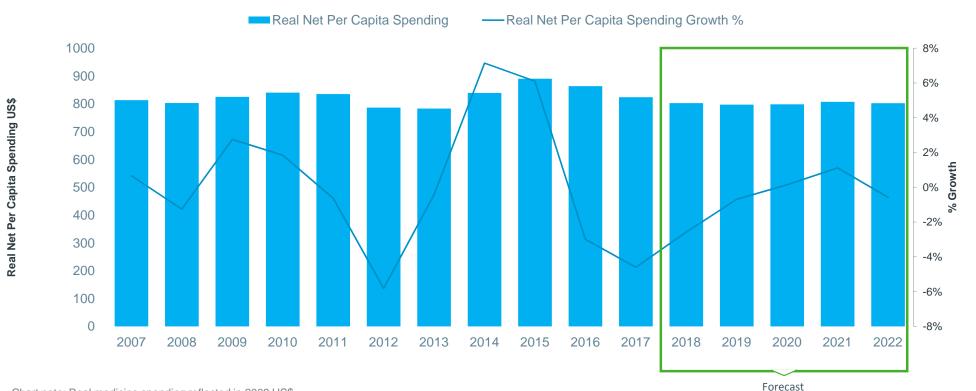
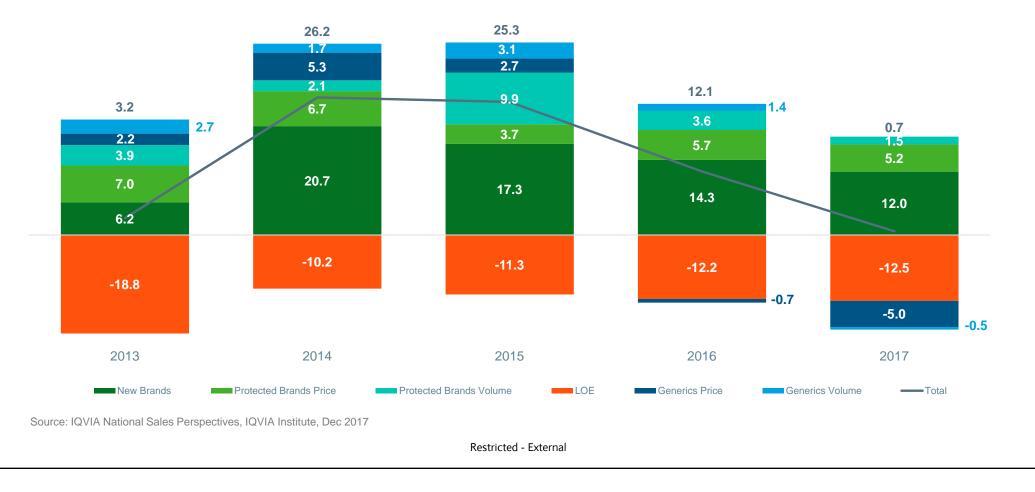


Chart note: Real medicine spending reflected in 2009 US\$

Source: IQVIA, Market Prognosis Sep 2017; IQVIA Institute; US Census Bureau; US Bureau of Economic Analysis (BEA), Dec 2017

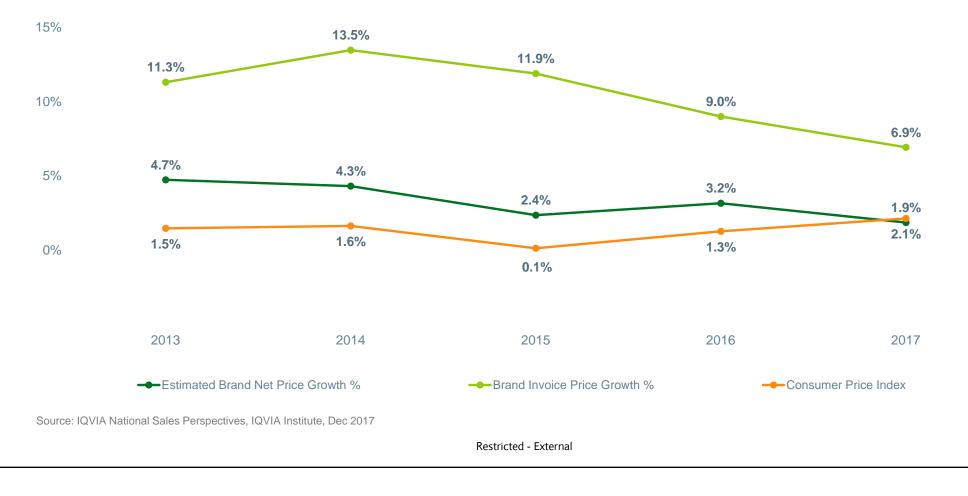
### Growth Fell to \$0.7 Billion as New and Protected Brands Grew \$4.9 Billion Less than in 2016, and Generics Declined by \$5.5 Billion

Net Spending Growth by Product Type US\$Bn

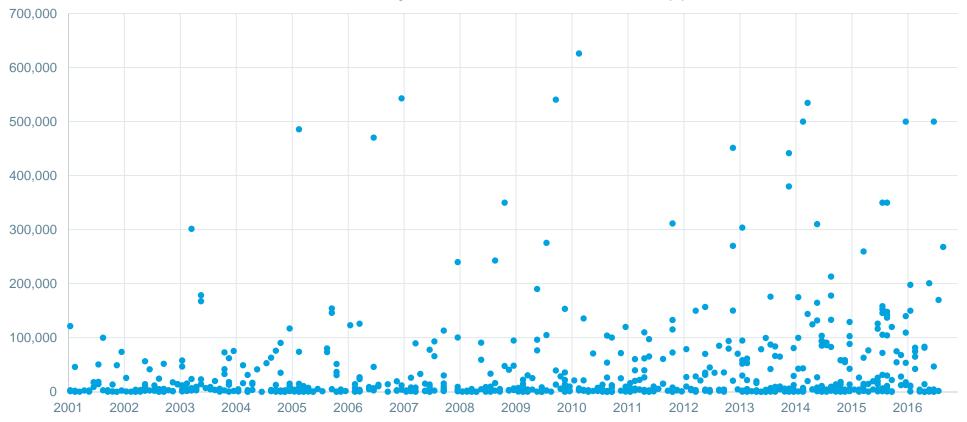


#### Protected Brand Net Prices Increased by 1.9% on Average in 2017, Continuing Below Invoice Price Growth and Now Lower Than Inflation

Protected Brand Invoice and Net Price Growth %



# More of Recent U.S. Brand Launches Costs Above \$100,000 per Year



Average annual costs of US brand launches by year

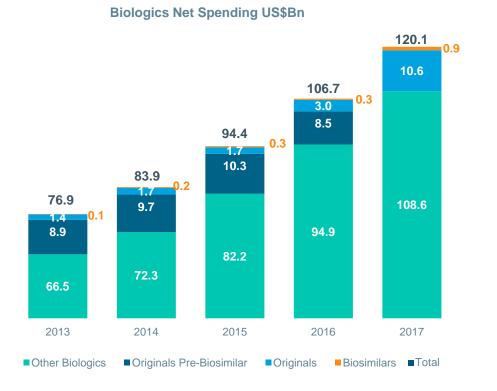
# High Costs Correlate with Lower Volumes with Very Few Exceptions

700,000 650.000 600,000 550,000 500,000 450,000 0 400,000 350,000 300,000 250,000 200,000 200,000 Imbruvica 150,000 100,000 Copaxone Harvoni Tecfidera 50,000 Humira 0 200,000 300,000 250,000 0 50,000 100,000 150,000 **Estimated Patients** 

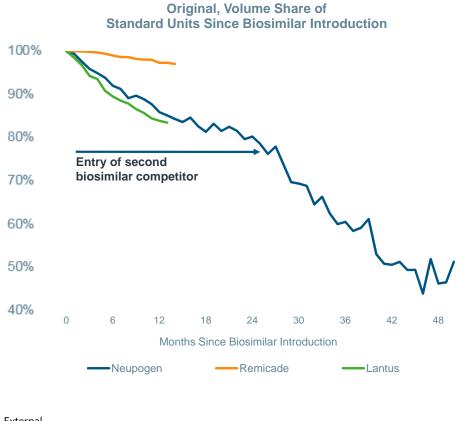
Average annual costs and patient estimates

#### **Biologics Growth Continues, and Biosimilars Now Compete for Market Share Among Medicines with \$11.5 Billion in Spending**

#### Impact of Biosimilars



Source: IQVIA National Sales Perspectives, IQVIA Institute, Dec 2017



#### There are important variations by the type of reimbursement

Biosimilars in the U.S. have been either buy & bill or traditional pharmacy, specialty still to come

74k

(38

%)

63k

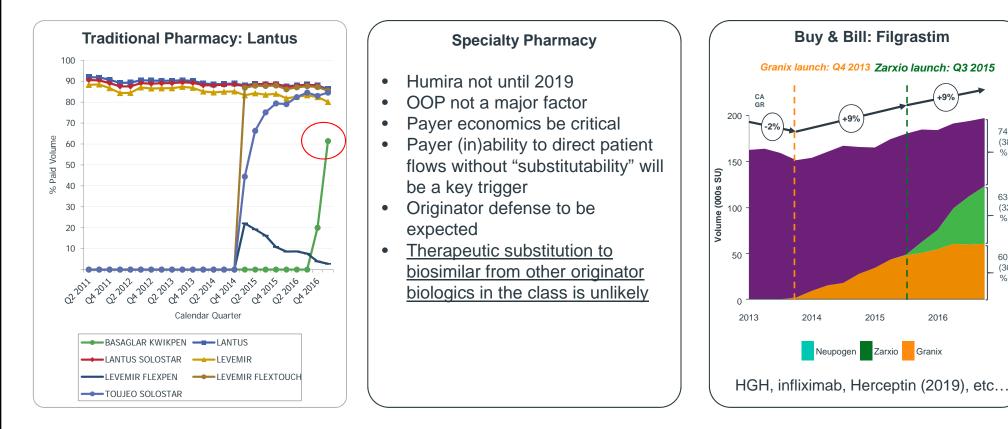
(32

%)

60k

(30

%)



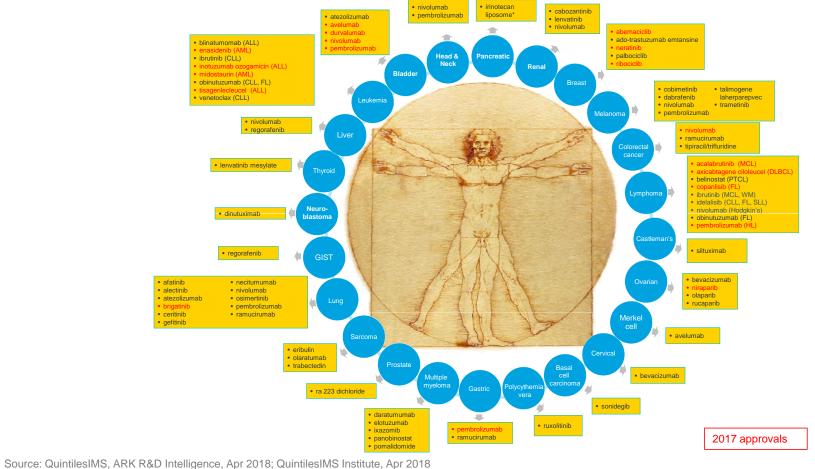
#### Significant Advances in Technology and Use of Information Will Impact Treatment Over the Next Decade

Key Elements of Expected Technological Advances Impacting Treatment

<b>6</b>				
Pharmaceuticals	MedTech	Artificial Intelligence	Real-World Data	Consumer Health
Immuno-Oncology	Surgical Robotics	Clinical Diagnostics	Growing Use of RWE for Regulatory	Apps for Wellness and Condition Management
Personalized / Stratified Therapies (Cell/Gene Therapy)	3D Printed Implants Implanted Drug Delivery Devices	Drug Discovery	Expanded Use of Cancer Registries and Open Data Across Countries	Telemedicine / Virtual Physician Visits
Other New Small Molecule Mechanisms of Action	Imaging	Treatment Selection	Across Countines	Connected Biometric Sensors

Source: IQVIA Real World and Analytics Solutions, Mar 2018

### New Active Substance Launches in Oncology 2013–2017 by Indication



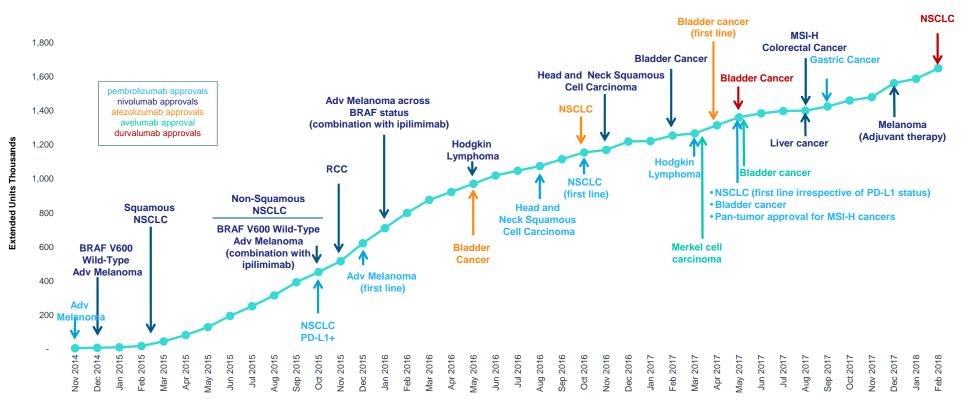
#### The Growing Complexity and Rapid Evolution of Treatment Protocols has Prompted the Development of Reference Apps

Oncology New Active Substances, Approved Product/Indications, and Medical Guideline Apps



Source: IQVIA, IQVIA Institute, ARK R&D Insight, IQVIA AppScript, Apr 2018

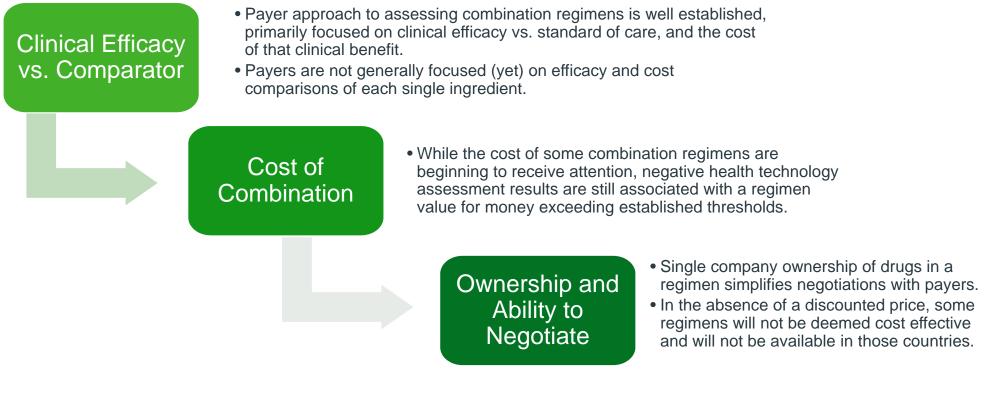




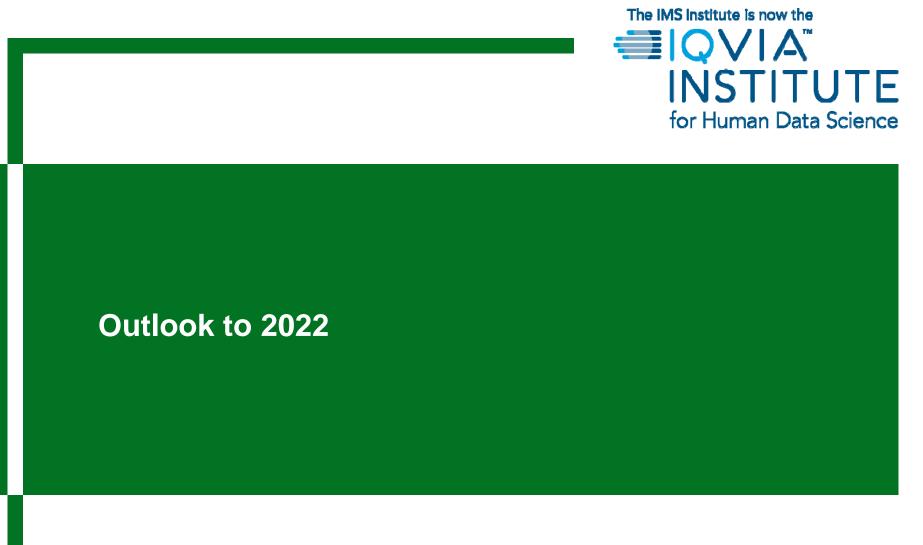
Source: U.S. FDA, IQVIA, National Sales Perspectives, Feb 2018; IQVIA Institute, Apr 2018

# Reimbursement for Doublets in Particular are Triggering New Approaches by Payers

Reimbursement for Doublets

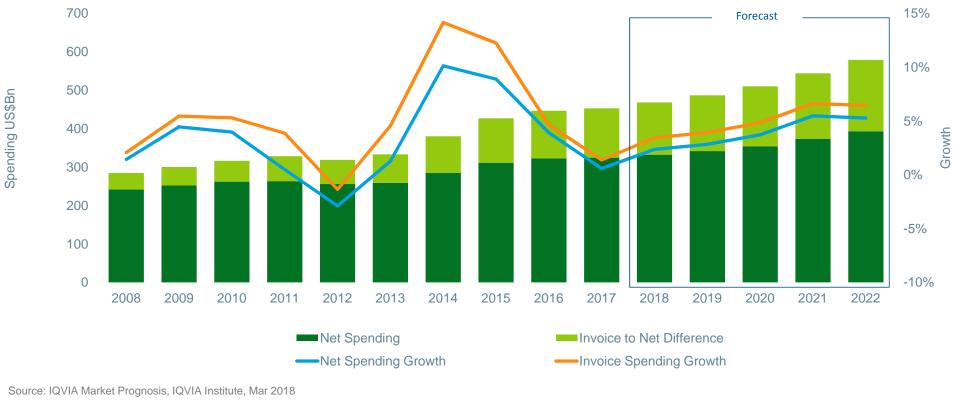


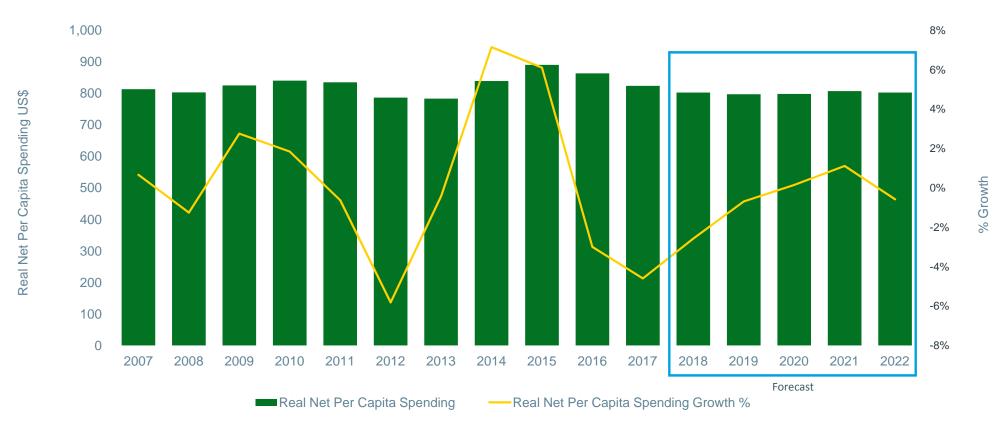
Source: IQVIA Real World and Analytics Solutions, Dec 2017



### Net Total Spending Growth will Average 2-5% Over the Next Five Years While Invoice Growth will Average 4-7%

Total Spending on Medicines, Growth and Outlook to 2022, US\$Bn



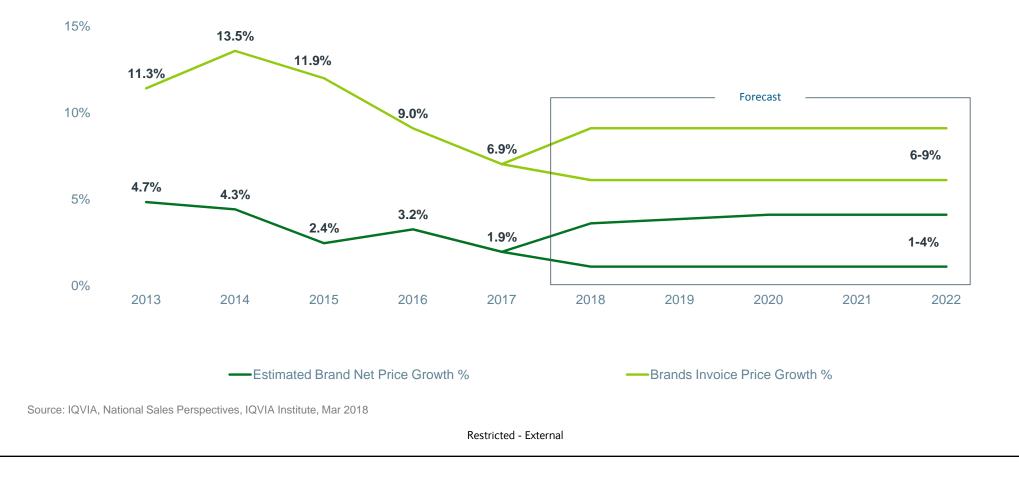


#### U.S. Real Net Per Capita Drug Spending and Growth

Source: IQVIA Market Prognosis Sep 2017; US Census Bureau; US Bureau of Economic Analysis (BEA), Dec 2017; IQVIA Institute; Feb 2018 Notes: Real medicine spending reflected in 2009 US\$

# Net Price Growth for Protected Brands is Forecast to be 1-4% Through 2022

Protected Brand Invoice and Net Price Growth





### Thank you