

Specialty Pharmaceuticals and Pharmacy: Today, Tomorrow and Beyond

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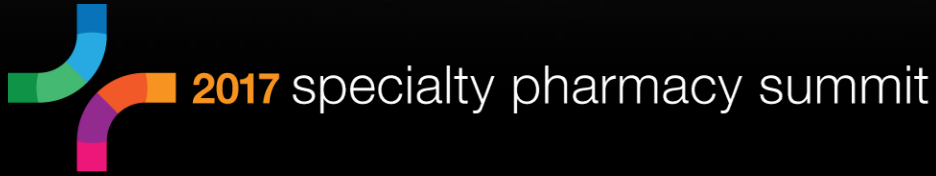
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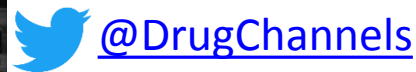
Agenda

- *The State of Specialty Pharmacy 2017* – Adam
- *Wall Street's Perspective on Specialty Pharmacy* - Eric
- *The US Pharmaceutical Market: Trends, Issues, and Outlook* - Doug
- LIVE with Adam, Doug, and Eric!



The State of Specialty Pharmacy 2017

Adam J. Fein, Ph.D.

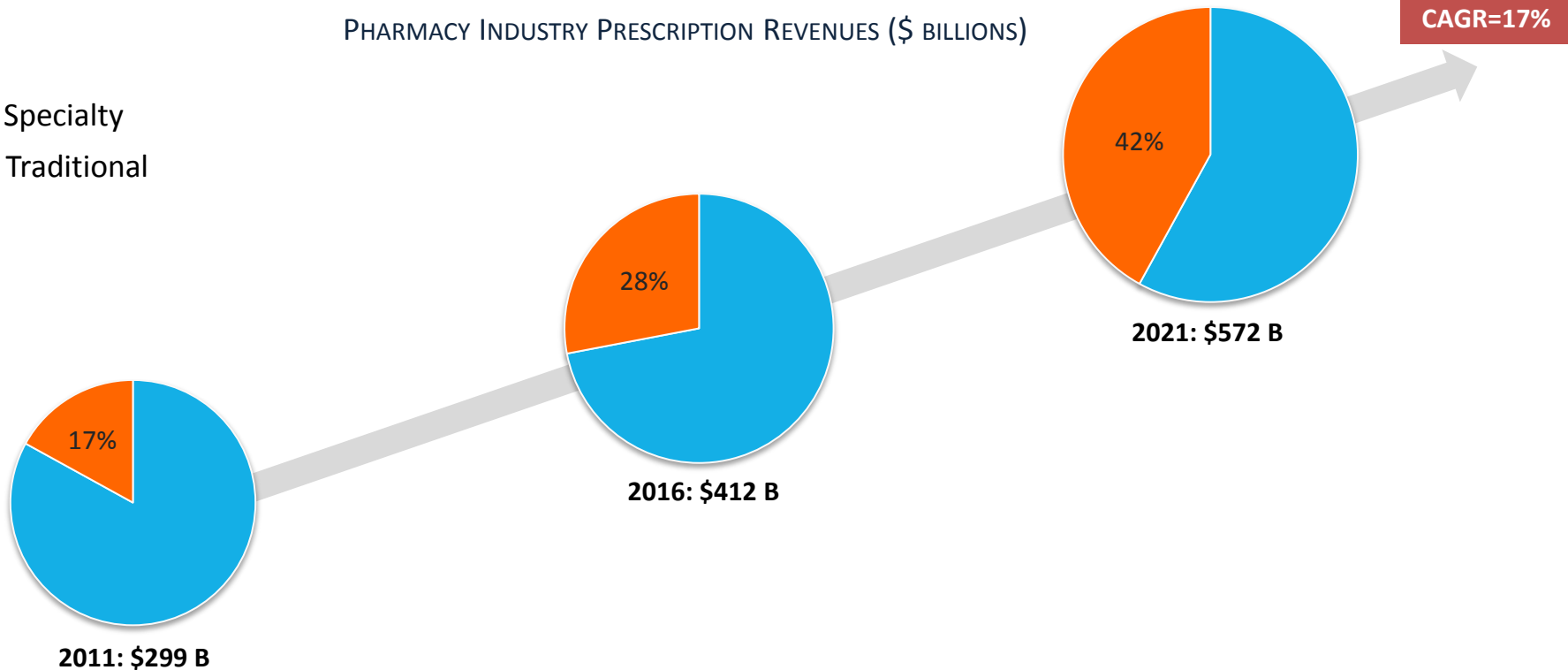




The Specialty Boom

PHARMACY INDUSTRY PRESCRIPTION REVENUES (\$ BILLIONS)

Specialty
Traditional



CAGR = Compound Annual Growth Rate

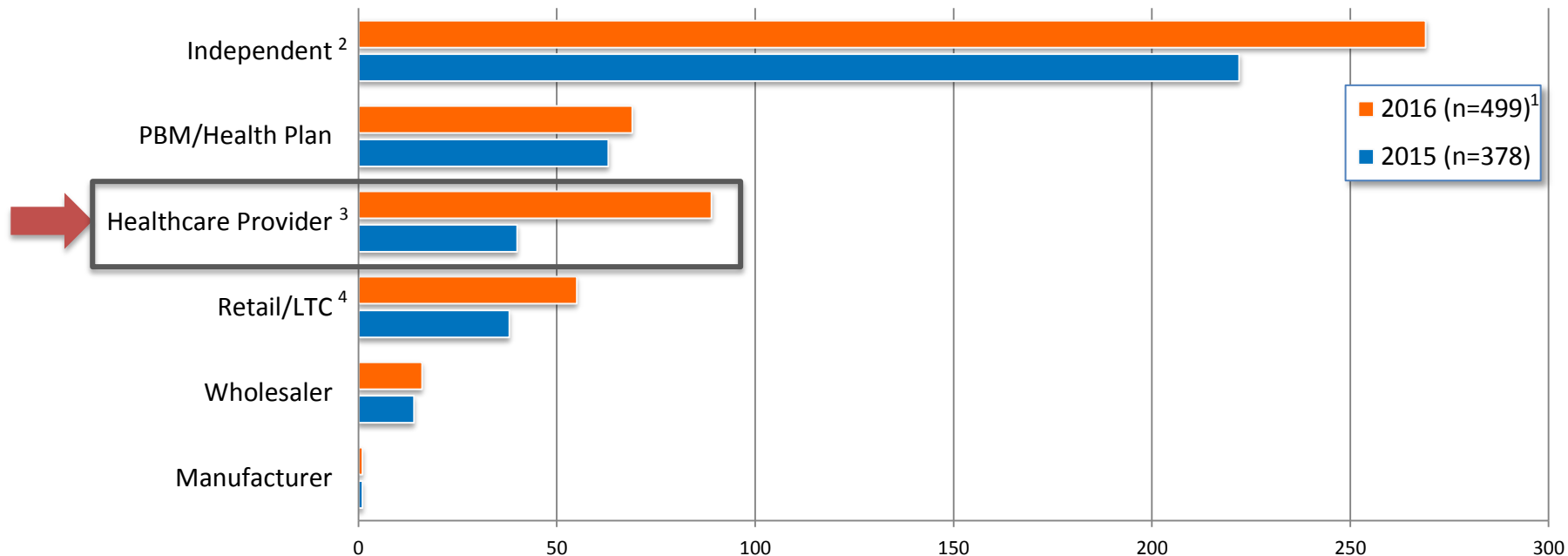
Source: [The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers](#), Exhibit 66. Includes prescription revenues from retail, mail, long-term care, and specialty pharmacies.

Converge. Connect. Collaborate.



Everyone Wants To Be A Specialty Pharmacy

PHARMACY LOCATIONS WITH SPECIALTY PHARMACY ACCREDITATION, BY CORPORATE OWNERSHIP, 2015 VS. 2016



LTC = Long-term care

1. Excludes 2,051 newly accredited retail pharmacies within the supermarket chains Albertsons, Meijer, and Price Chopper.

2. Includes private independent pharmacies, pharmacies owned by private equity firms, and independently owned franchise locations

3. Includes pharmacies owned by hospitals, health systems, physician practices, and providers' group purchasing organizations

4. Includes pharmacy locations owned by chain drugstores, grocery chains, and national long-term care pharmacy chains

Source: [The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers](#), Exhibit 44. Includes pharmacy locations accredited by URAC and ACHC.



2017

Narrow Specialty Channels

Manufacturer



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graph TD; A[OPEN DISTRIBUTION] --> B[LIMITED DISPENSING NETWORKS]; B --> C[PHARMACY BENEFIT NETWORKS];
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OPEN DISTRIBUTION

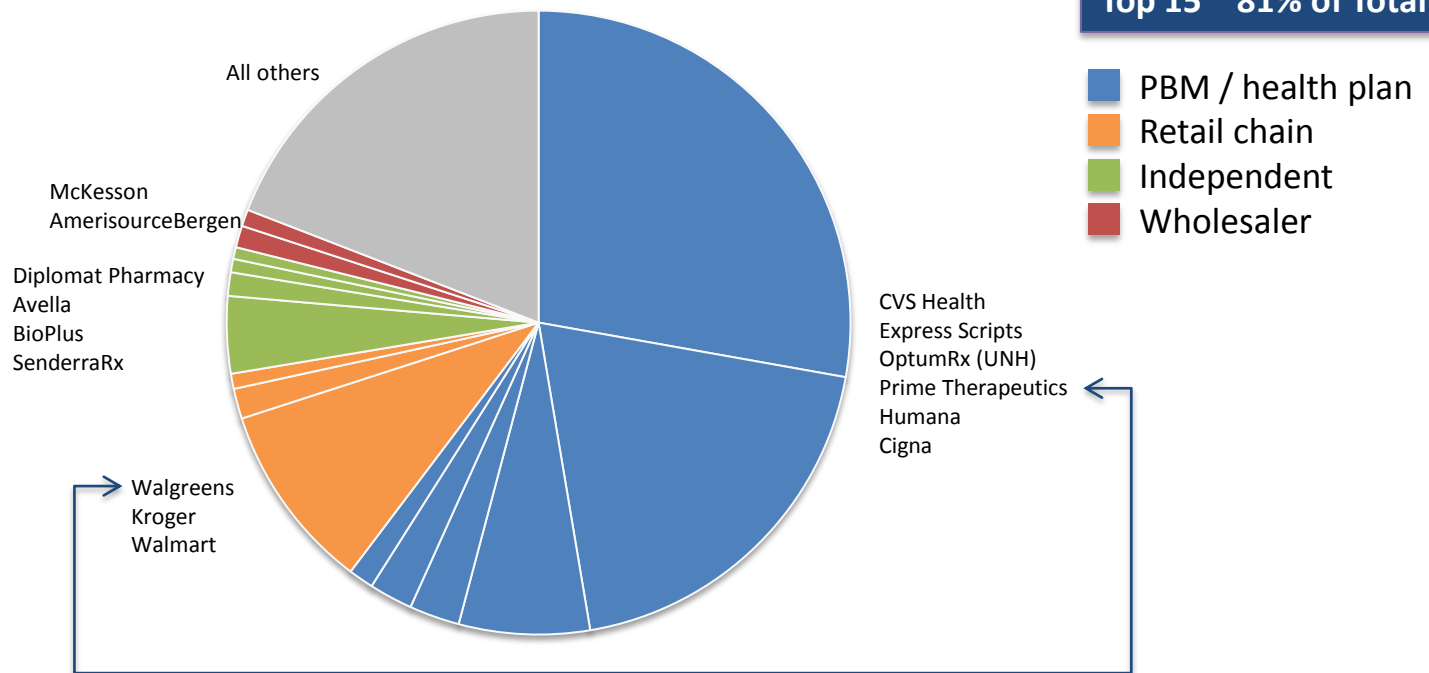
LIMITED DISPENSING NETWORKS

Payer/PBM

PHARMACY BENEFIT
NETWORKS

Concentration + Opportunity

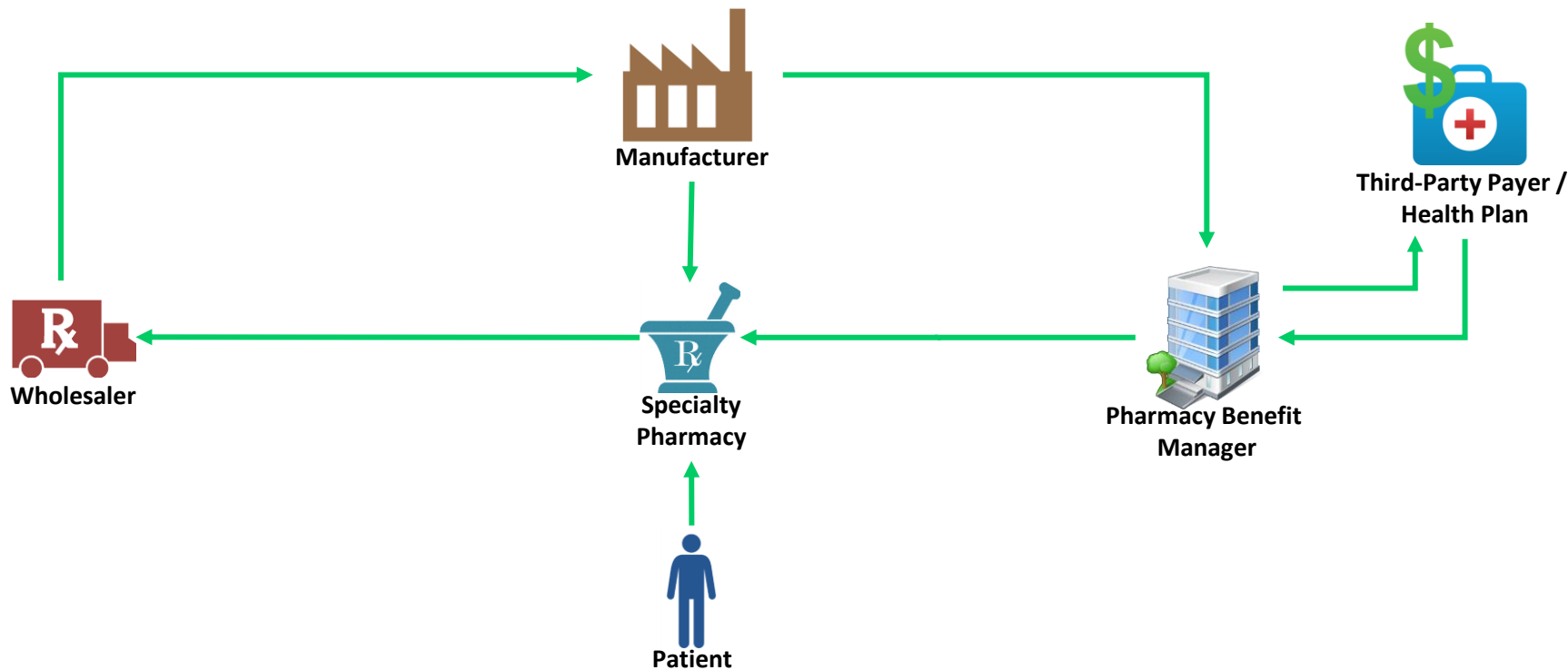
SHARE OF SPECIALTY DRUG DISPENSING REVENUES, BY COMPANY, 2016



Source: [The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers](#), Exhibit 42.

Includes prescription revenues from retail, mail, long-term care, and specialty pharmacies. Excludes revenues from network pharmacies of PBM-owned specialty pharmacies and infusion services covered by medical benefit. Reflects pro-forma impact of 2016 acquisitions

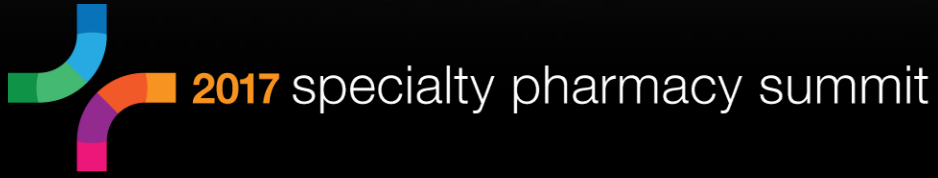
The Co-evolution of Specialty Pharmacy Economics





Implications

- PBMs, pharmacies, wholesalers, health plans, and providers will battle for control of the specialty market and the patient journey
- Manufacturers' specialty networks will become larger and more inclusive
- Channel control will continue migrating from manufacturers to PBMs and payers
- Coevolving economics will consolidate specialty pharmacies
- Organized channels—new ownership and partnering relationships—will emerge



Wall Street's Perspective on Specialty Pharmacy

Eric Percher
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Specialty Pharmaceuticals and Pharmacy: Today, Tomorrow and Beyond

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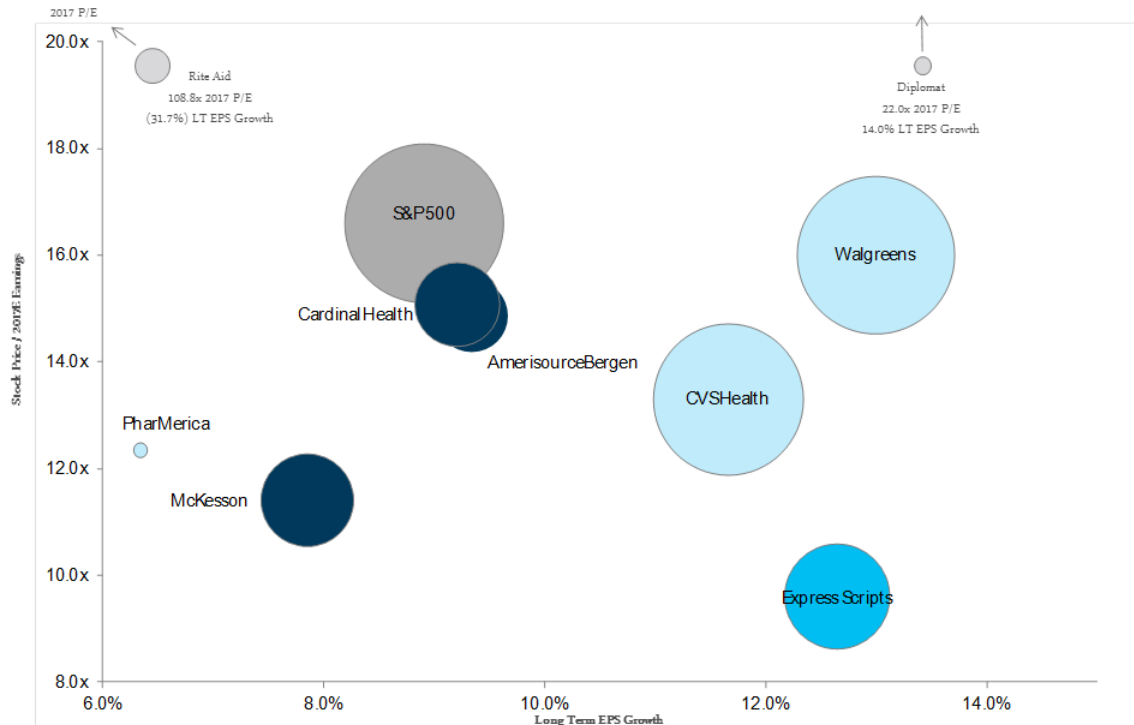
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PLEASE SEE ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES BEGINNING ON PAGE 10.

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Wall Street's Perspective: Value and Valuation



Source: Barclays Research, Thomson ONE
Note: Bubbles reflect company size by market cap; Rite Aid not covered; Consensus estimates from Thomson ONE

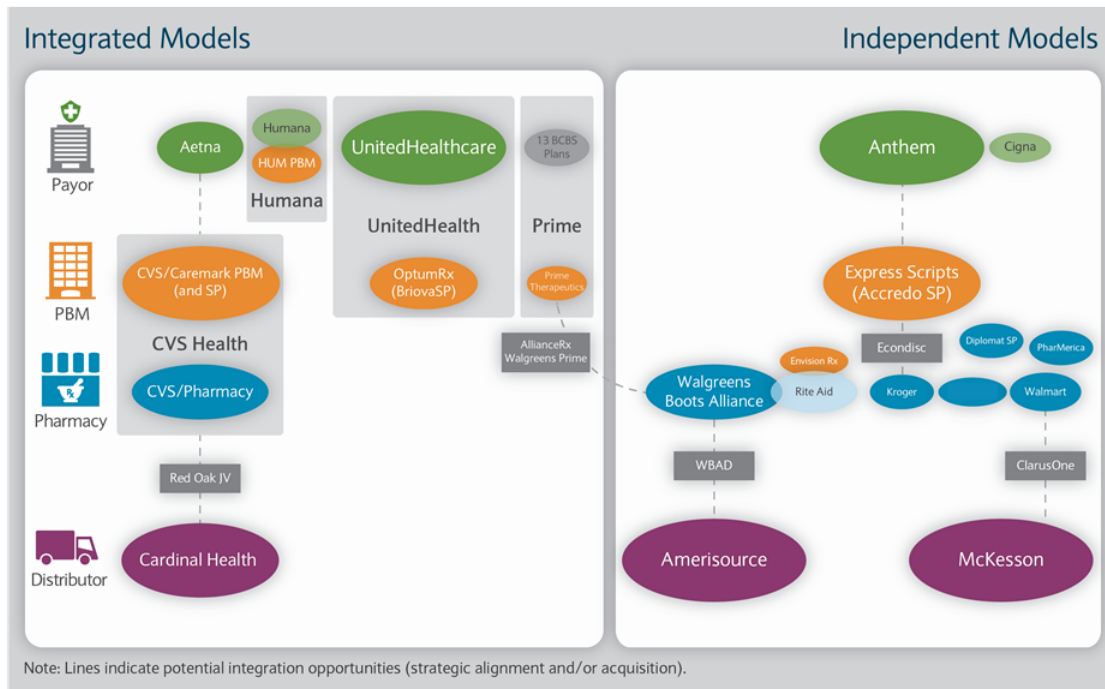
What's Top of Mind on Wall Street?



Source: Barclays Research

A View of the Current US Supply Chain

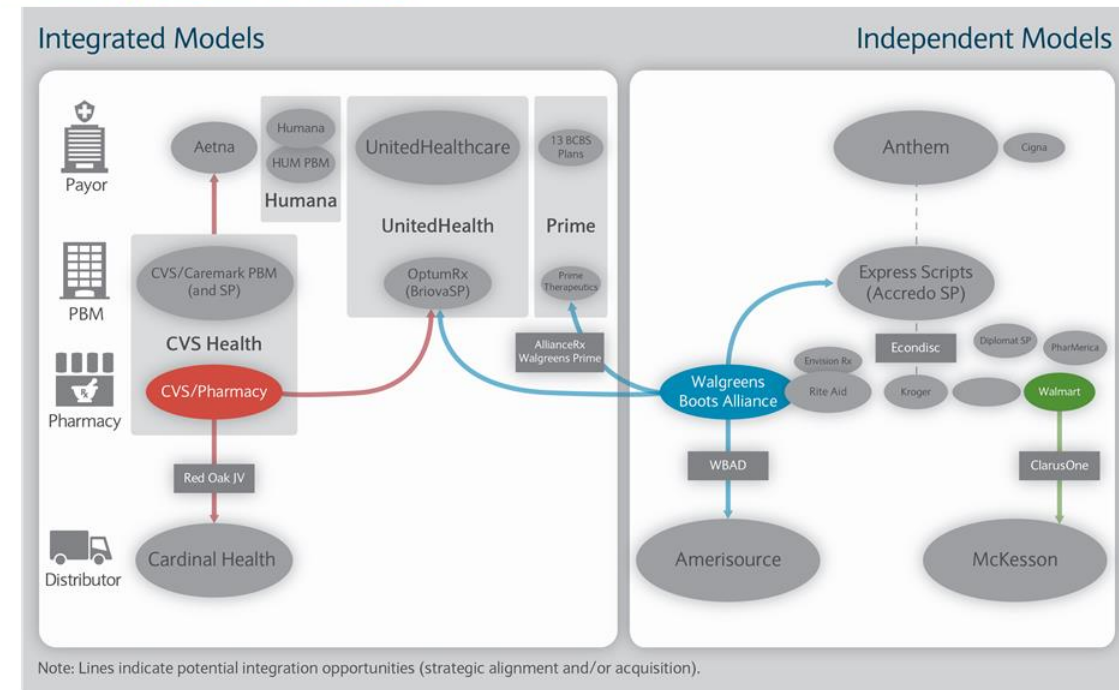
PBM / Payer Alignment



Source: Barclays Research

Hot Topic: Potential Vertical Partnership Opportunities

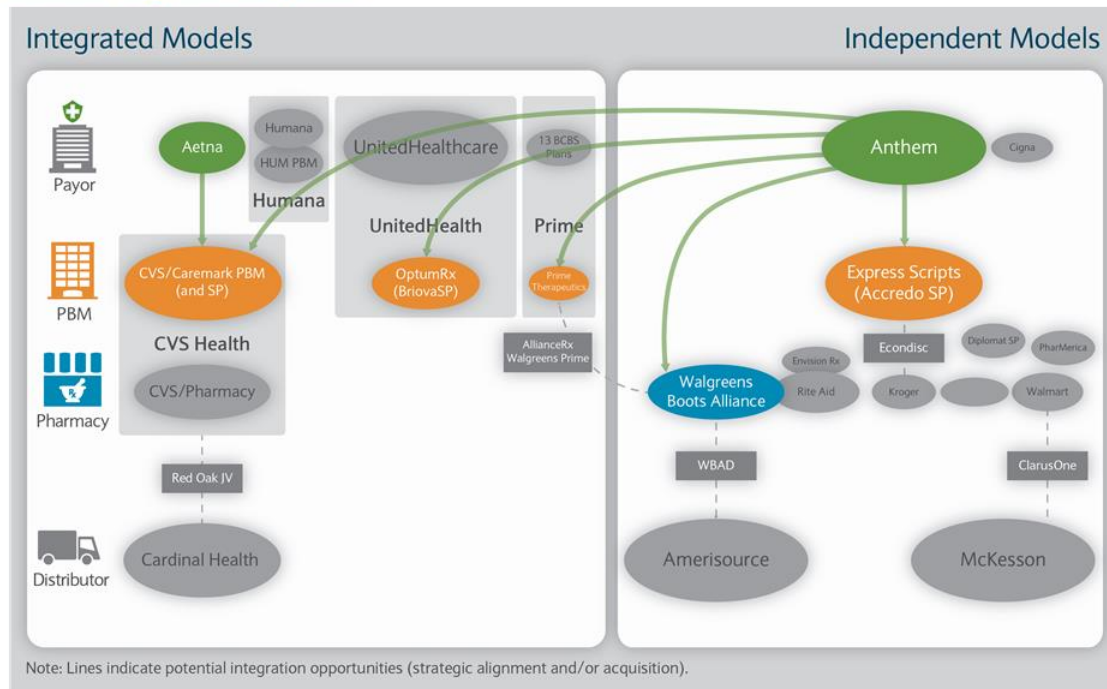
Pharmacy Alignment Strategy



Source: Barclays Research

Hot Topic: Much Optionality, Few Options

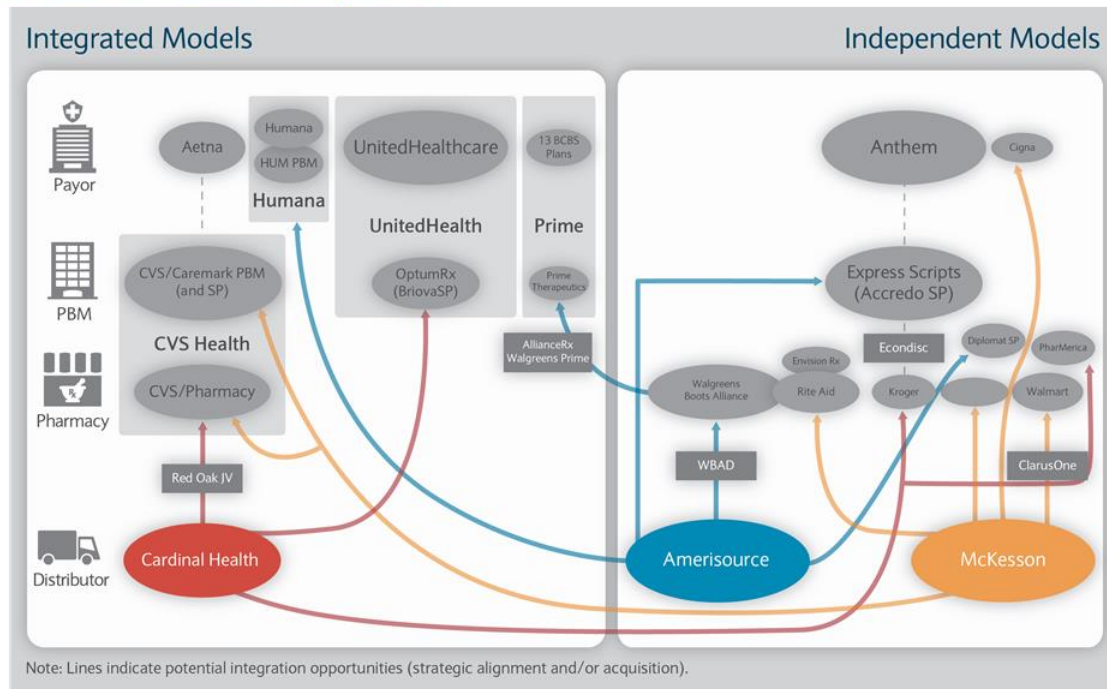
Anthem Alignment Options



Source: Barclays Research

A View of Distributor Relationships

Distributor Customer Alignment

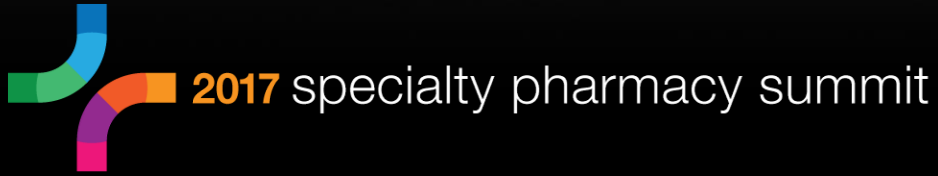


Source: Barclays Research; note Barclays is currently restricted on McKesson thus customer alignment is facts only

Key Developments on the Horizon

As PBMs, pharmacies, wholesalers, payers, and providers battle for control of specialty, new ownership and partnership models are emerging

- Horizontal consolidation is nearing an endpoint. Vertical consolidation opens opportunities to improve care and reduce systematic waste.
- United/OptumRx: It will take years to demonstrate the benefits of integrated medical/pharmacy benefit management in the real world
- CVS Health: Specialty Connect is now the most differentiated element of the integrated pharmacy/PBM model
- Walgreens/Prime: For the first time in years, Walgreens has made specialty a focus – is there space in the room for Amerisource?
- PBMs will seek to drive adoption of biosimilars under the pharmacy benefit. Distributors and Payers are developing models to impact the medical benefit.



The US Pharmaceutical Market: Trends, Issues, and Outlook

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What happened in 2016?

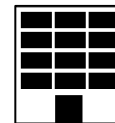
Snapshot of key happenings in the industry

Market Performance

- ✓ Dollar growth is decelerating
- ✓ TRX growth is improving
- ✓ 90 day scripts are 14% of scripts
- ✓ Below avg. Flu and Allergy Seasons
- ✓ Generic \$ sales decreases

Mergers / Alliances

- ✓ *Walgreens and Rite Aid postponed*
- ✓ **Ahold and Delhaize**
- ✓ **Target pharmacies are now CVS pharmacies**
- ✓ **Walmart and McKesson Alliance**
- ✓ Anthem and Cigna- (Turned down)
- ✓ Aetna and Humana (Turned down)



Reimbursement

- ✓ AMP finally arrives
- ✓ **Generic Deflation**
- ✓ DIR fees
- ✓ Pharmacists can prescribe in more places



Generic Launches

- ✓ Crestor
- ✓ Gleevec
- ✓ Benicar, Tamiflu
- ✓ Seroquel XR, Nuvigil, Asacol



Regulation

- ✓ New FDA/DEA guidelines on Controlled Substances

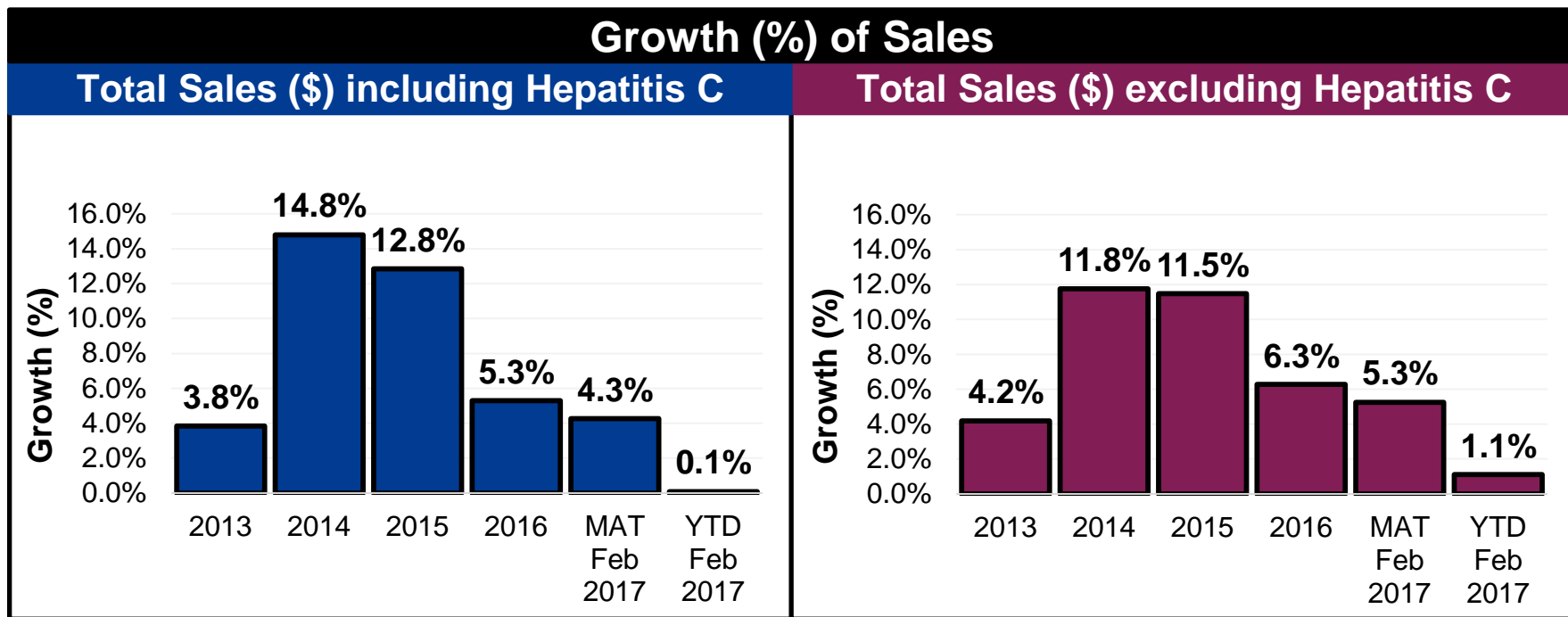


Price / Politics

- ✓ Turing, Valeant and Epipen
- ✓ 2016 Elections and public anger
- ✓ DOJ investigations

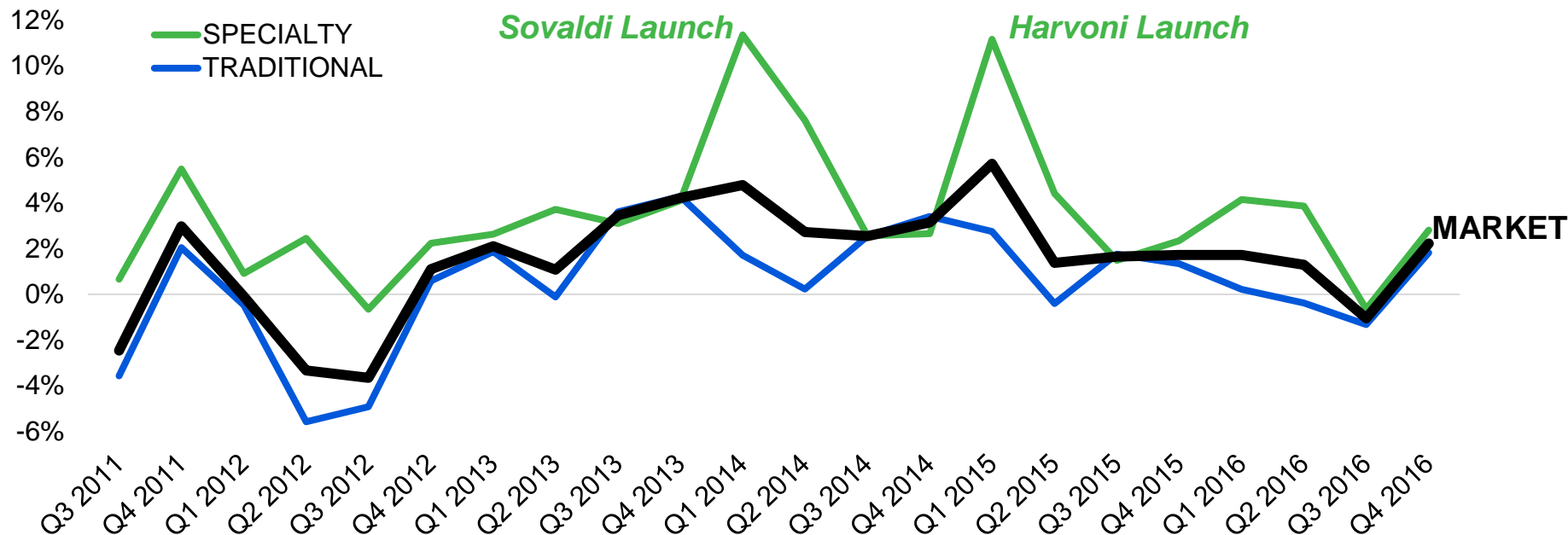


Year over year market growth is decelerating from 2015 to 2016



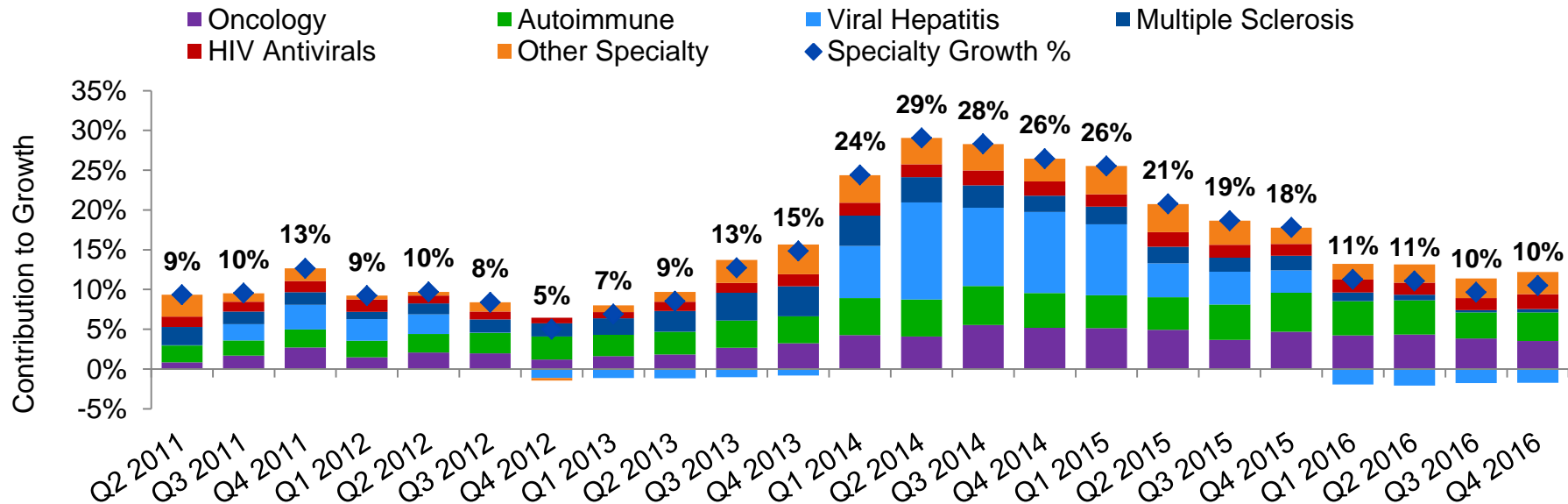
2017

Specialty outpaces total market sales growth quarter over quarter with noticeable spikes during Hep C launches



Specialty spending growth is finally slowing from the record high growth rates reached in 2014-15 with the Hep C bubble
 Specialty growth would have been 3.5% higher in 2016 without HCV

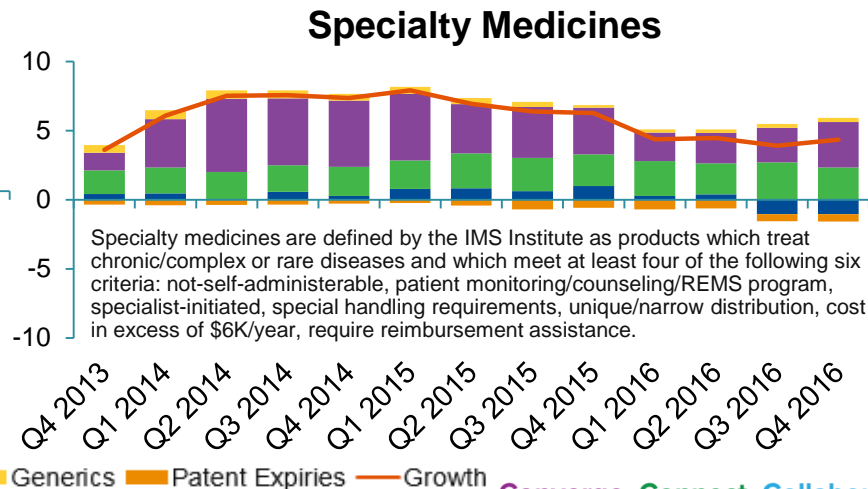
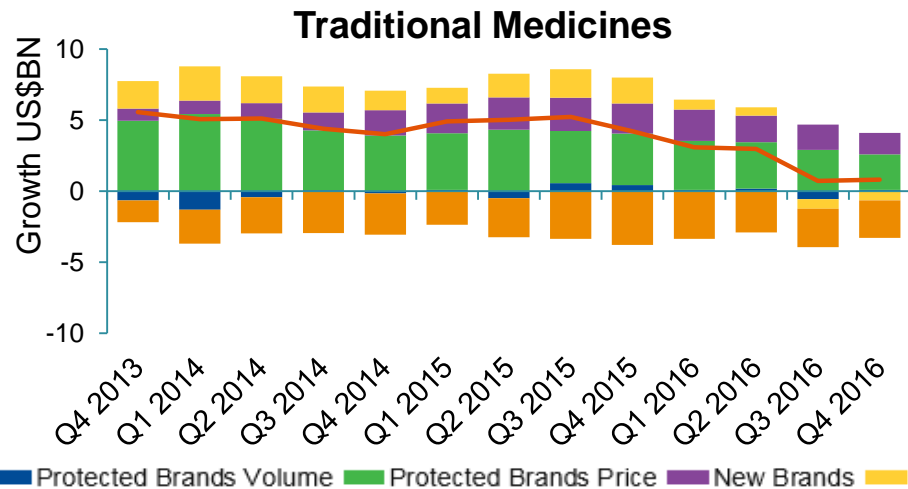
Contribution to Specialty Spending Growth by Therapy Area





Specialty absolute \$ contribution to growth is 80% of total growth

| | Sales (US\$ BNs) | | | | | Contribution to Growth | | | |
|--------------------|------------------|---------|---------|---------|---------|------------------------|------|------|------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2013 | 2014 | 2015 | 2016 |
| MARKET | \$317.8 | \$330.0 | \$378.8 | \$427.5 | \$450.1 | 3.8 | 14.8 | 12.8 | 5.3 |
| SPECIALTY | \$94.9 | \$104.7 | \$132.7 | \$162.3 | \$180.9 | 3.1 | 8.5 | 7.8 | 4.3 |
| TRADITIONAL | \$222.9 | \$225.3 | \$246.1 | \$265.1 | \$269.2 | 0.7 | 6.3 | 5.0 | 0.9 |

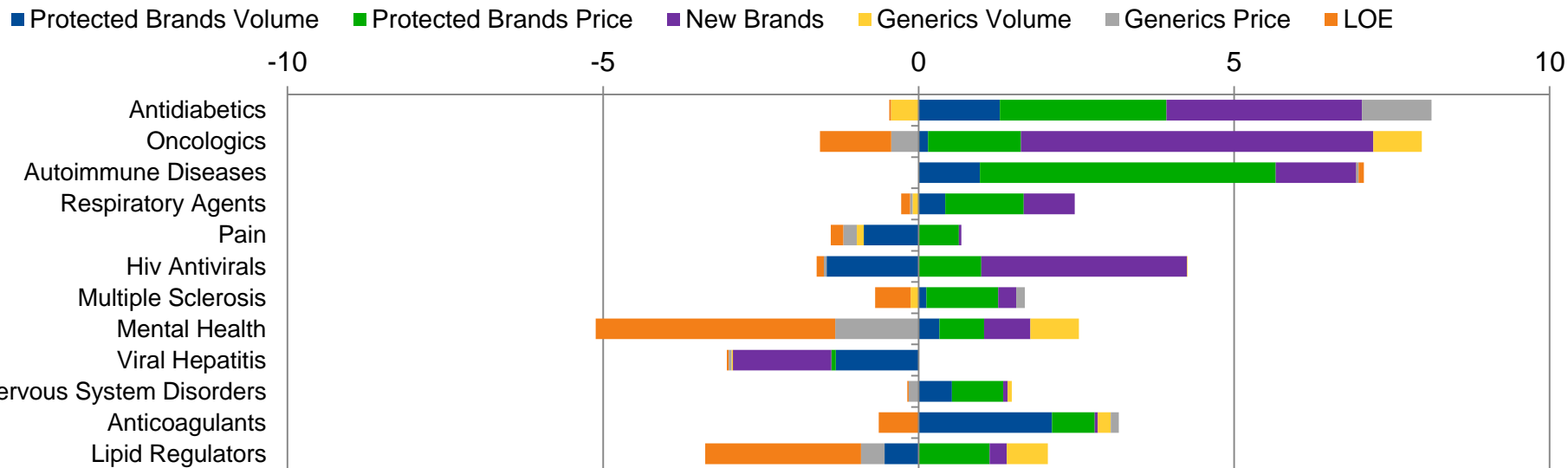




Specialty classes Hepatitis, Autoimmune, Oncology drive non-discounted spending growth

Diabetes growth from new brands, list price growth offset by rebates

Leading Therapy Classes Non-Discounted Spending Growth by Segment (\$BN) MAT Dec 2016





2016 Therapeutic Area Snapshot

| Therapy Area | Non-Discounted Spend (US\$) | | | Dispensed Prescriptions (TRx) | | |
|--------------------|-----------------------------|---------------|---------------|-------------------------------|---------------|---------------|
| | 2016 (BNs) | Δchange (BNs) | Growth | 2016 (MNs) | Δchange (MNs) | Growth |
| Diabetes | \$50.7 | \$6.9 | 15.7% | 223.2 | 12.0 | 5.7% |
| Oncology | \$45.6 | \$6.5 | 16.5% | 20.3 | 0.8 | 4.2% |
| Autoimmune | \$36.7 | \$6.5 | 21.4% | 6.9 | 0.0 | 0.7% |
| Respiratory | \$25.9 | \$2.1 | 9.0% | 180.7 | 5.0 | 2.9% |
| Pain | \$19.7 | -\$1.1 | -5.1% | 461.3 | -8.3 | -1.8% |
| HIV Antivirals | \$18.7 | \$2.6 | 16.0% | 10.9 | 0.2 | 1.7% |
| Multiple Sclerosis | \$18.6 | \$1.0 | 5.4% | 2.4 | -0.1 | -3.5% |
| Mental Health | \$17.2 | -\$2.5 | -12.5% | 394.4 | 17.9 | 4.8% |
| Hep C | \$15.8 | -\$3.0 | -16.0% | 0.9 | -0.1 | -13.4% |
| CNS Disorders | \$12.5 | \$1.3 | 11.8% | 198.1 | 10.5 | 5.6% |
| Anticoagulants | \$12.4 | \$2.4 | 24.3% | 81.4 | 1.1 | 1.3% |
| Lipid Regulators | \$12.1 | -\$1.3 | -9.4% | 263.8 | 3.7 | 1.4% |
| All Others | \$164.0 | \$1.1 | 0.7% | 2,602.0 | 36.6 | 1.4% |
| Total | \$450.1 | \$22.6 | 5.3% | 4,446.2 | 79.3 | 1.8% |

Converge. Connect. Collaborate.



Top 10 Molecules by 2016 Sales (US\$)

| Molecule | Non-Discounted Spend (US\$) | | | Dispensed Prescriptions (TRx) | | |
|-----------------|-----------------------------|---------------|--------|-------------------------------|---------------|--------|
| | 2016 (BNs) | Δchange (BNs) | Growth | 2016 (MNs) | Δchange (MNs) | Growth |
| HUMIRA | 12.9 | 2.8 | 27.3% | 2.57 | 0.3 | 11.0% |
| HARVONI | 10.0 | -4.3 | -30.0% | 0.27 | -0.1 | -35.8% |
| ENBREL | 7.9 | 0.7 | 9.5% | 1.55 | -0.1 | -5.0% |
| LANTUS SOLOSTAR | 5.6 | -0.2 | -2.6% | 11.78 | 0.3 | 2.6% |
| REMICADE | 5.3 | 0.3 | 6.6% | 0.09 | 0.0 | 9.9% |
| JANUVIA | 4.8 | 0.6 | 14.6% | 9.76 | 0.4 | 4.6% |
| ADVAIR DISKUS | 4.6 | -0.1 | -1.3% | 11.86 | -1.3 | -9.6% |
| LYRICA | 4.4 | 0.5 | 14.4% | 10.45 | 0.2 | 2.1% |
| NEULASTA | 4.3 | 0.2 | 4.1% | 0.04 | 0.0 | -9.0% |
| CRESTOR | 4.2 | -2.1 | -33.1% | 12.03 | -8.3 | -40.7% |



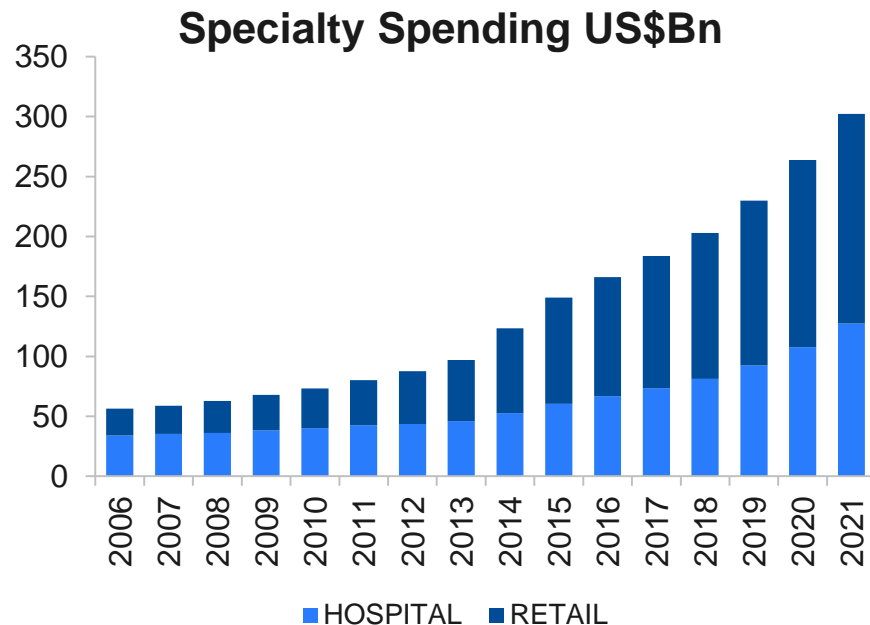
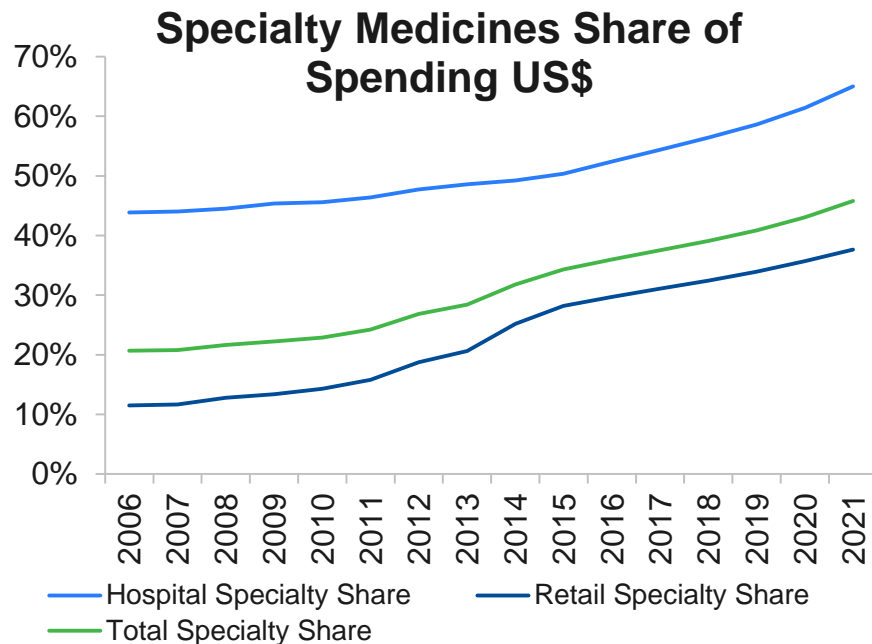
Top 11-20 Molecules by 2016 Sales (US\$)

| Molecule | Non-Discounted Spend (US\$) | | | Dispensed Prescriptions (TRx) | | |
|-----------|-----------------------------|---------------|--------|-------------------------------|---------------|--------|
| | 2016 (BNs) | Δchange (BNs) | Growth | 2016 (MNs) | Δchange (MNs) | Growth |
| COPAXONE | 4.1 | -0.3 | -6.4% | 0.64 | -0.1 | -7.9% |
| RITUXAN | 3.9 | 0.2 | 6.6% | 0.01 | 0.0 | 21.5% |
| TECFIDERA | 3.7 | 0.2 | 5.7% | 0.46 | 0.0 | -6.4% |
| XARELTO | 3.6 | 0.7 | 26.2% | 8.44 | 1.0 | 13.9% |
| LANTUS | 3.3 | -0.5 | -12.3% | 7.72 | -0.9 | -10.2% |
| ELIQUIS | 3.1 | 1.5 | 95.5% | 7.44 | 3.3 | 79.9% |
| TRUVADA | 3.1 | 0.3 | 12.6% | 1.97 | 0.2 | 8.6% |
| AVASTIN | 3.1 | -0.1 | -1.8% | 0.01 | 0.0 | -12.8% |
| VYVANSE | 3.0 | 0.4 | 15.0% | 11.85 | 0.8 | 7.1% |
| SYMBICORT | 3.0 | 0.3 | 12.2% | 9.88 | 0.8 | 8.9% |



2017

Specialty Medicines are approaching 45% of spending overall, approaching 70% of hospital but overall rise driven by the rise of retail specialty





Three regions make up 88% of global biologic sales and 98% of biosimilar sales*



60% of biologic sales
3% of biosimilar sales



6% of biologic sales
8% of biosimilar sales

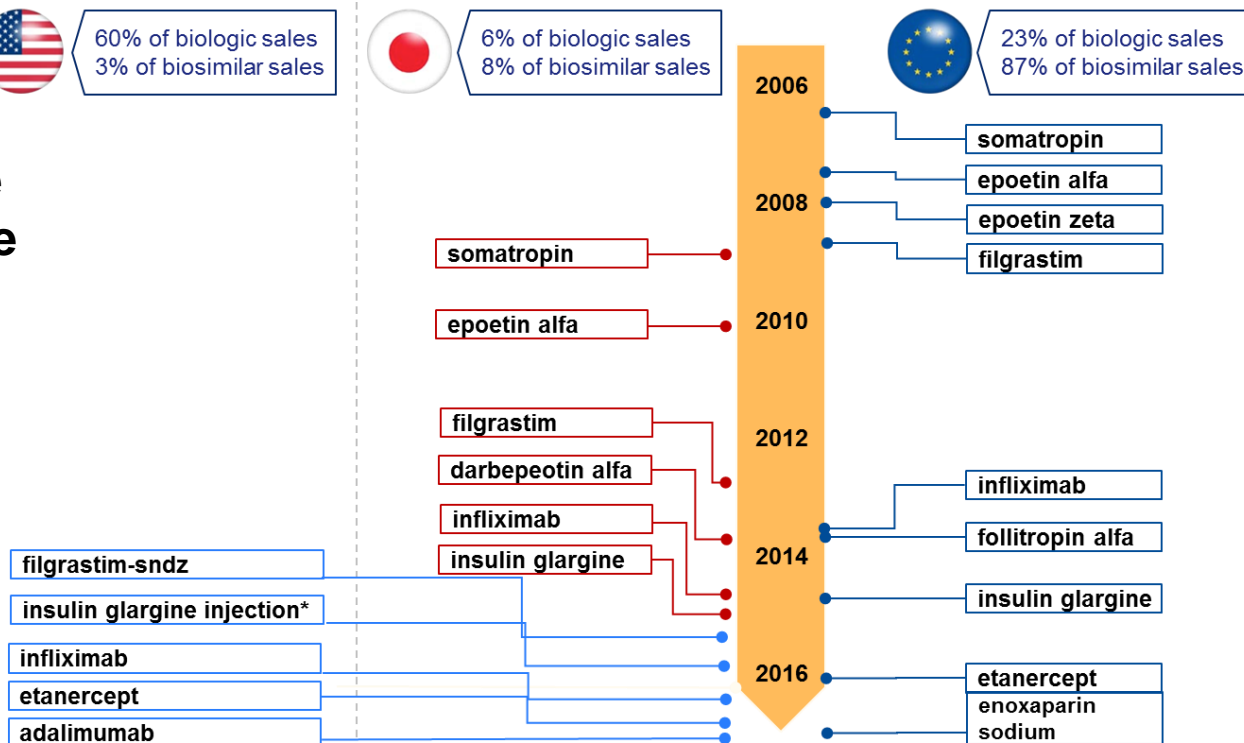


23% of biologic sales
87% of biosimilar sales



US, Japan, Europe Biosimilar molecule approvals to date

Source: QuintilesIMS MIDAS Q3 2016 (Europe excludes Russia and Turkey); EMA website Jan 2017; FDA website June 2016; Japan approval dates from Gabionline April 2016; *Basaglar is not a biosimilar in the USA, it is a follow-on biologic; excludes Non-original biologics





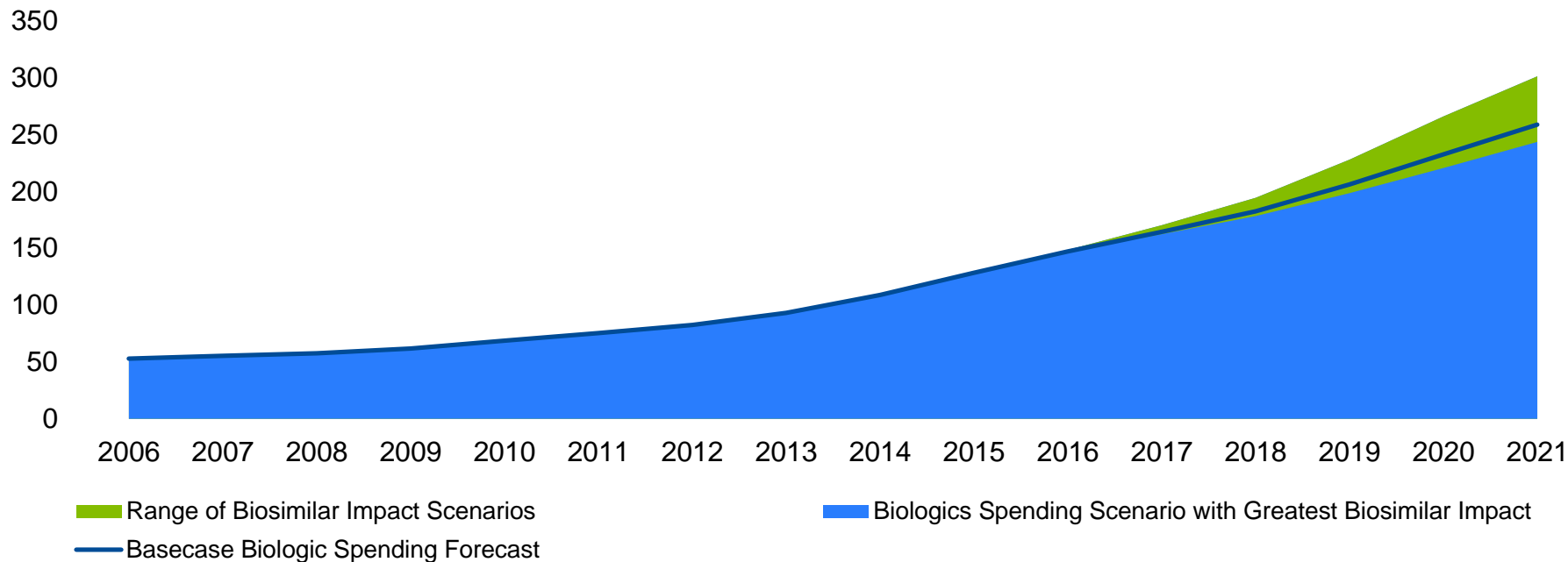
Europe has paved the way for biosimilar development

- As of the end of 2016, the EMA has approved **23 biosimilars (8 molecules)**
- 2016 marks **the tenth anniversary** of the launch of the first biosimilar in Europe and Medicines for Europe claims:
 - Across Europe, nearly **90% of doctors now know what Biosimilar medicines are and nearly 60% have already prescribed them**
 - Since the first biosimilar medicine was launched in 2006, EU-approved biosimilars have generated more than **400 million patient days of positive clinical experience**
 - Between 2006 and 2014, **biosimilar medicines have increased patient access by 44% overall within in the EU-5 countries*^**

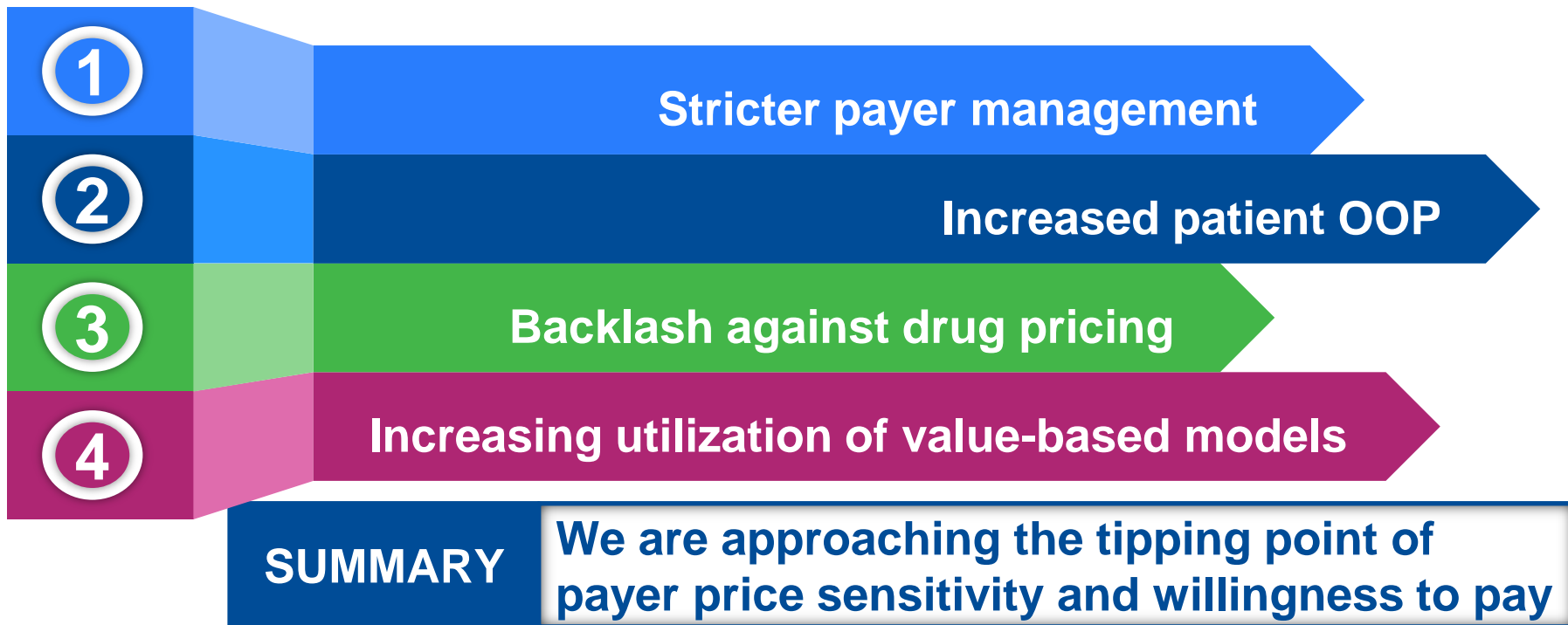
* France, Germany, Italy, Spain, United Kingdom

2017

U.S. biologic spending without biosimilars would grow at 14-17%; as low as 9-12% in greatest impact scenario



Key US Market Access Trends over the last decade





2017

Today's reality for Market Access is *“half the access at twice the cost”*

- Payers exert more market power than ever
- Formulary restrictions and blocks have become more widespread strategies for formulary control
- As a result, payers are able to extract higher rebates with each year
- Launch products are entering an environment where differentiation doesn't guarantee access anymore



2017

Market Access challenges and complexities now dominate the focus for commercial organizations



Prescribers used to be the primary focus for drug manufacturer's analysis and insight

- *Who are the highest volume prescribers in a TA?*
- *Which physicians are early adopters of new MOAs?*
- *Which physicians are loyal to specific brands and which switch?*



As drug coverage and contracting evolved, manufacturers shifted attention to payers

- *Which channels and payers are restricting access?*
- *How effective are their restrictions?*
- *How significant are the restricted books of business?*



Industry trends pushed more cost sharing to patients, increasing influence on brand success

- *How much of a barrier to access are deductibles, patient out of pocket, etc.?*
- *How does patient cost exposure influence patient compliance?*
- *Are patient savings programs available and effectively facilitating access?*



Pharmaceutical companies must answer patient-centric questions for successful performance

- **Pricing and Contracting Strategy:**

- What will the drug cost the patient?
- What savings options are available?
- What is the expected total patient cost for treatment?

- **Pull-Through and Marketing Execution:**

- Where are benefit designs more and less favorable?
- How do drug costs differ by geography, insurance?
- How do phases of coverage (deductibles, coverage gap) influence patient access and behavior?

- **Performance Measurement:**

- Where can real-world data (RWD) add commercial value and innovation?
- What information about customers actual cost and benefit exposure should be infused into sales and marketing tactics?



2017

Identified trends fell into two categories

MORE OF THE SAME



STRICTER PAYER MANAGEMENT

INCREASED PATIENT OOP

BACKLASH AGAINST DRUG PRICING

INCREASING UTILIZATION OF VALUE BASED MODELS

GAME CHANGERS



SHIFT AWAY FROM DEEP REBATE MODEL

INCREASED PRICE TRANSPARENCY

INCREASED MANAGEMENT WITHIN THE MEDICAL BENEFIT



What are people thinking about?

Generic Manufacturers

- Purchasing Alliances
- Price increase backlash
- Portfolio Optimization
- Brand /niche drugs
- Proposed labeling changes
- Tax Inversion

Payers

- Exploding costs of Specialty Drugs
- Rising Oncology costs
- Formularies blocks and exclusive launches

Wholesalers

- Purchasing Alliances
- Controlled Substances abuse
- Access to Specialty Drugs
- Generic Price Deflation & less Brand inflation
- Track and Trace

Brand/Specialty Manufacturers

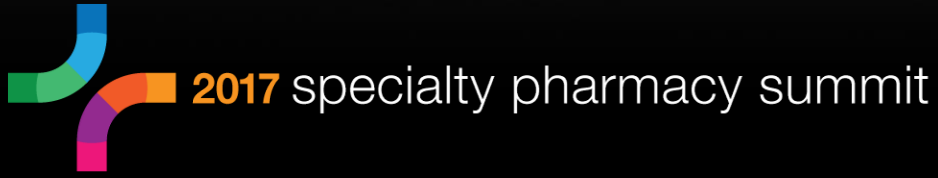
- *Price backlash*
- *Becoming more specialized*
- *Oral Specialty*
- *Orphan Drugs*
- *Tax Inversion*

Pharmacies

- Reimbursement
- Controlled Substances abuse
- Access to Specialty Drugs
- Purchasing Alliances
- Track and Trace

Consumers

- Rising costs
- Specialty Tiers
- Losing Insurance



LIVE with Adam, Doug, and Eric!

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Cardinal Health Inc. (CAH, 21-Apr-2017, USD 72.50), Overweight/Positive, CD/CE/D/J/K/L/M/N
CVS Health Corp. (CVS, 21-Apr-2017, USD 79.28), Overweight/Positive, A/CD/CE/D/J/K/L/M
Diplomat Pharmacy Inc. (DPLO, 21-Apr-2017, USD 15.51), Overweight/Positive, CE/J
Express Scripts Holding Co. (ESRX, 21-Apr-2017, USD 66.46), Overweight/Positive, CD/CE/J/K/M/N

Important Disclosures (continued)

McKesson Corp. (MCK, 21-Apr-2017, USD 135.92), Rating Suspended/Positive, A/CD/CE/D/E/J/K/L/M/N

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PharMerica Corporation (PMC, 21-Apr-2017, USD 23.05), Underweight/Positive, CE/J

Walgreens Boots Alliance, Inc. (WBA, 21-Apr-2017, USD 84.03), Equal Weight/Positive, CD/CE/J/K/N

Prices are sourced from Thomson Reuters as of the last available closing price in the relevant trading market.

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