Drug Discovery, Development and Commercialization, 2013

Marketing Pharmaceutical & Biotech Drugs

Williams S. Ettouati, Pharm.D.
Director, Industrial Relations & Development
Health Sciences Associate Clinical Professor, N.S.

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Objectives

- Pharmaceutical Traditional Marketing: The 4 Ps
- FDA: Regulatory Rules
- Pharma New Business Models
- Novel Approach: The 4Cs
- Conclusion

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Marketing Pharmaceutical

- What makes a drug a success?
  - Is it a great ad campaign, or promotions from doctors?
  - Does the drug address a much-needed area of medicine?
  - Does the drug treat a disease in an exceptional way with few side effects?
  - The way to measure its success is sales

Marketing's role is to increase SALES

- Marketing & brand development start early at Phase I
- New Product Planning and Product Management: Group charged with commercializing developing brands
- Payers require Pharmacoeconomic data before reimbursing products

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Marketing The 4 Ps

- Product
- Place or Market
- Price
- Promotion

PRODUCT

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Elements of the “Ideal Drug Profile”

- First in class + best in class
- Expanded patient populations
- Simple dosage regimens; a pill once a day
- Multiple delivery systems
  - Oral, injectable, topical…
- Superior efficacy data
- Enlarged safety data
- Compelling pharmacoeconomic data
- Shows increase survival data
- Sustainable competitive advantages vs. competitors

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Commercial Models in Pharma

- DIFFERENTIATED
  - Significant product innovation
  - Often no generics available
  - Payers exert little influence on treatment decisions
- COMMODITY
  - Generics minimally differentiated, other than by price
  - Payers have a great stake in the prescribing decisions
- TRANSITIONAL:
  - Fall between the above two extremes and are likely to undergo significant change

Design Marketing Plan

- Develop differentiated brand positioning
  - Product label approved by FDA, EMEA…
- Build brand plan and articulate strategic imperatives to deliver brand including
  - Key brand messages
  - Communication strategy for each stakeholder
  - Pricing and promotions strategy
  - Linked to clinical strategy
- Develop physician/patient programs to build compliance and persistency
- Define brand portfolio and architecture

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Product Positioning

- Brand positioning specifies
  - Clear target
  - Defines what the product is and does
  - Provides distinctive reason to believe benefit are true and bring value

- In addition it must address all these questions:
  - Is it relevant to target customers?
  - Will customers care?
  - Does it address a unmet medical need?
  - Is it credible for the brand?
  - Is it distinctive from competitors?
  - Does it leverage brand strengths and address weaknesses?
  - Will it enable the brand to achieve its growth objectives?
  - Is it consistent with the organization's core competencies?
  - Can it be effectively executed and measured?

PLACE - MARKET

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Place: Define the Market

- Segment key customers & target key stakeholders
  - Who are we marketing to?
  - Physician, hospital formulary, patients, advocacy group?
- Identify unmet needs & size volume opportunity
  - Are we going after mass market?
  - Specialty market, orphan diseases?
- Understand current brand & competitor equity
  - Who is the competition? Benchmarking
  - Are we first in class, best in class?
  - A “Me Too” drug?
- Define product opportunity & economic value proposition
  - Do we have better efficacy, safety, dosing, pharmacoeconomics?
- Develop S.W.O.T. Analysis
  - Strengths, Weaknesses, Opportunities and Threats

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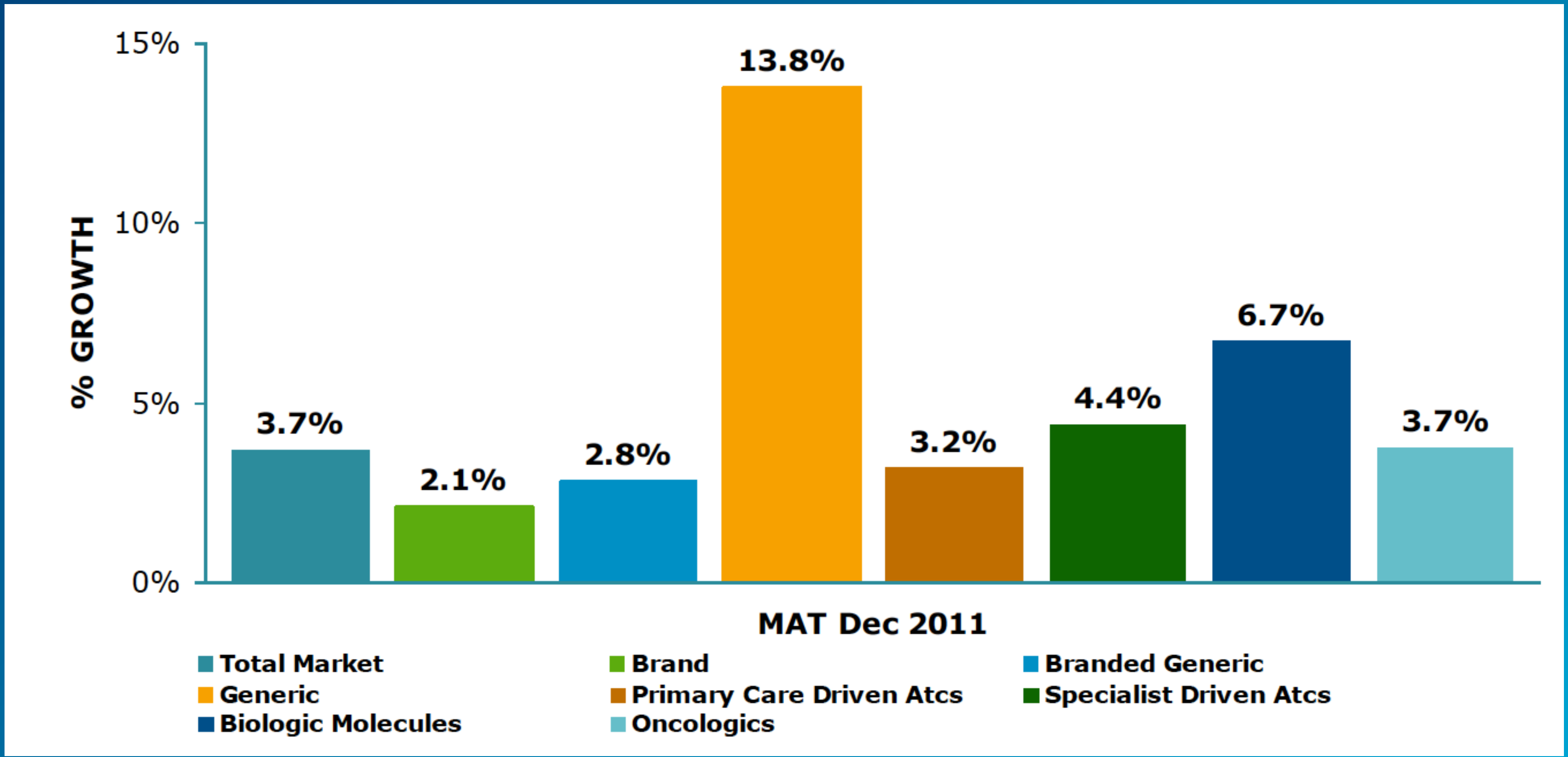
2011 Generics & Specialty Outperformed the Market

%Growth US $



Source: IMS Health, National Sales Perspectives, Dec 2011

A Historic First: Traditional Prescription Drug Spending
Since 1993 when Express Scripts began recording annual drug trends
2012 First year where total spending on traditional drugs declined

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Market Shift: Pharma Changes Strategy

- Move from General Practitioner and Family Practice market to specialty market
- Going after orphan indications
- Portfolio moving from small molecules to biologics and macromolecules
- Why?
  - Protection from generic erosion
  - High price per treatment
  - Cheaper & different promotion mix
  - Smaller sales force
  - Lower cost of entry, cheaper clinical trials
  - Faster to market
  - Fast track approvals
  - True unmet medical needs

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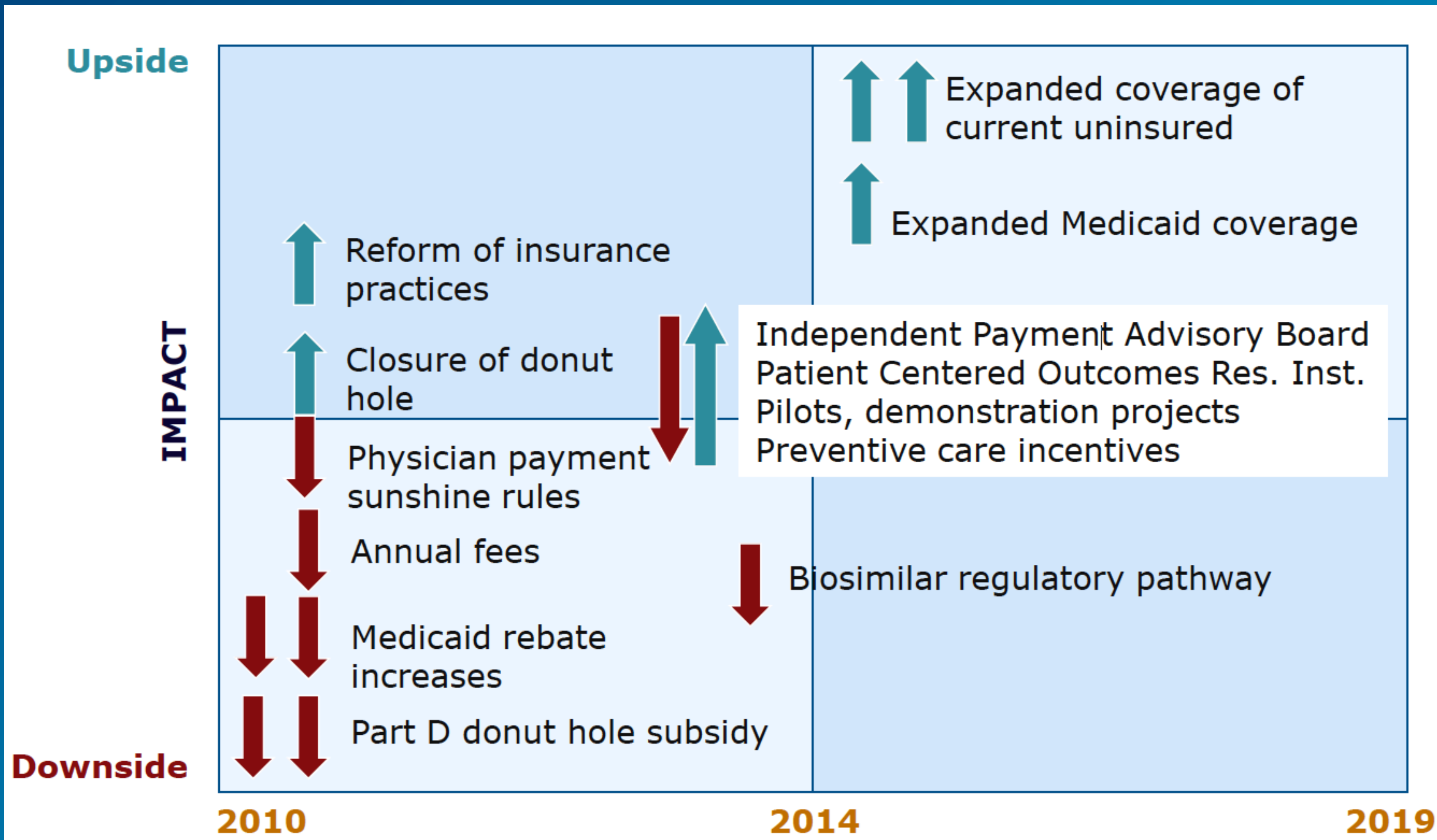
Major Changes in Market Forces

Certain impacts are negative in the short term but more positive or uncertain longer term



http://fmi.org/docs/2012-health-wellness-conference-presentations/doug-long---the-us-pharmaceutical-market.pdf?sfvrsn=2

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PRICE

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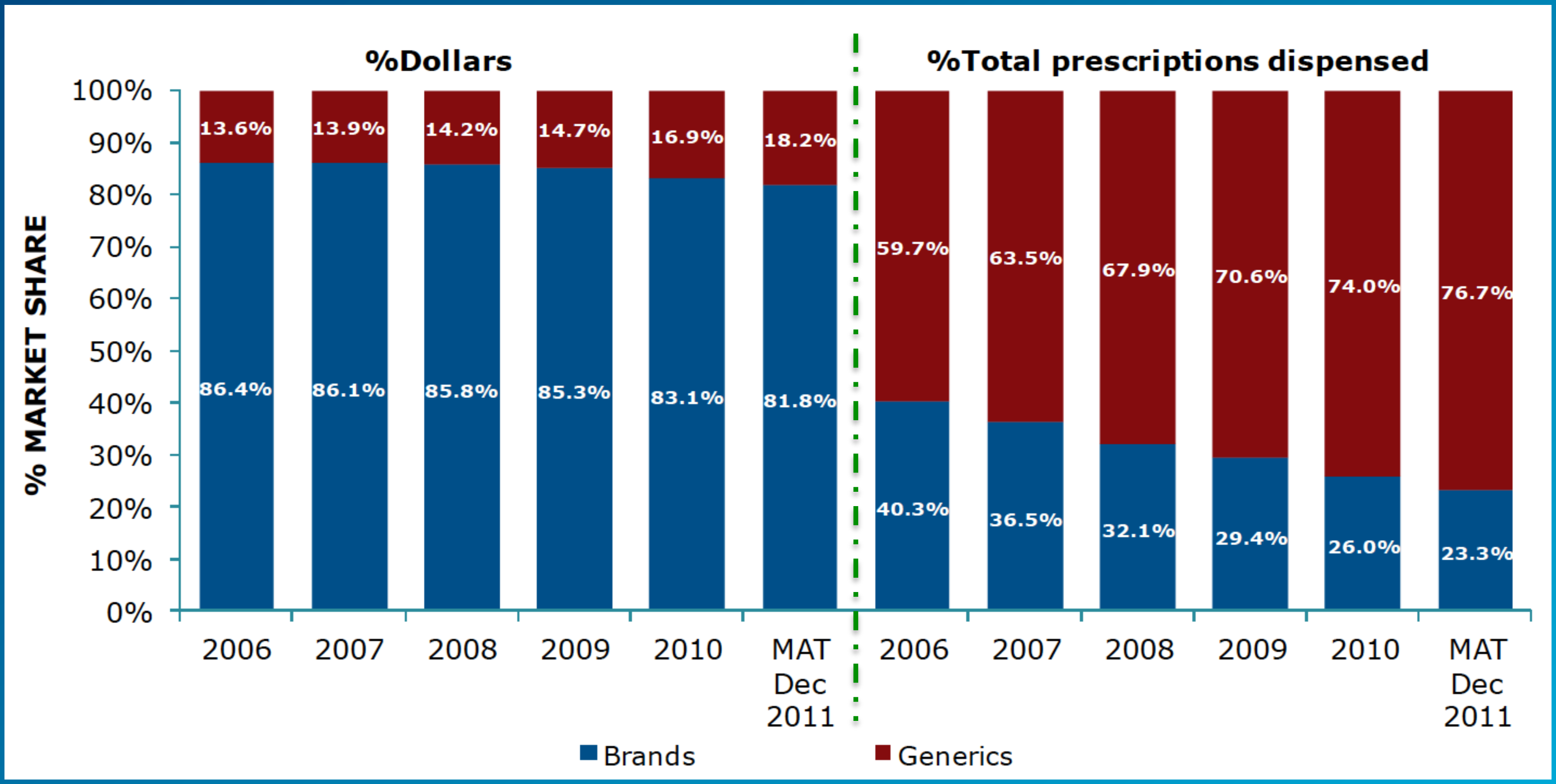
Generics Reached All-Time High Market Share



Source: IMS Health, National Sales Perspectives, Dec 2011, National Prescription Audit, Dec 2011, Branded generics disaggregated

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Pricing Strategy

How is the brand perceived vs. competition on relevant parameters?

2012 Top-selling drugs reflect the strategy of the $310 billion annual drug industry:

No. 1 Nexium™, (heartburn) + 7.8% price increase to a $262 average prescription

No. 2 Abilify™, (bipolar disorder) + 10.4% to $642 per prescription

No. 3 Crestor™, (cholesterol-lowering) + 9.7% to $193 per prescription

IMS Health reports.

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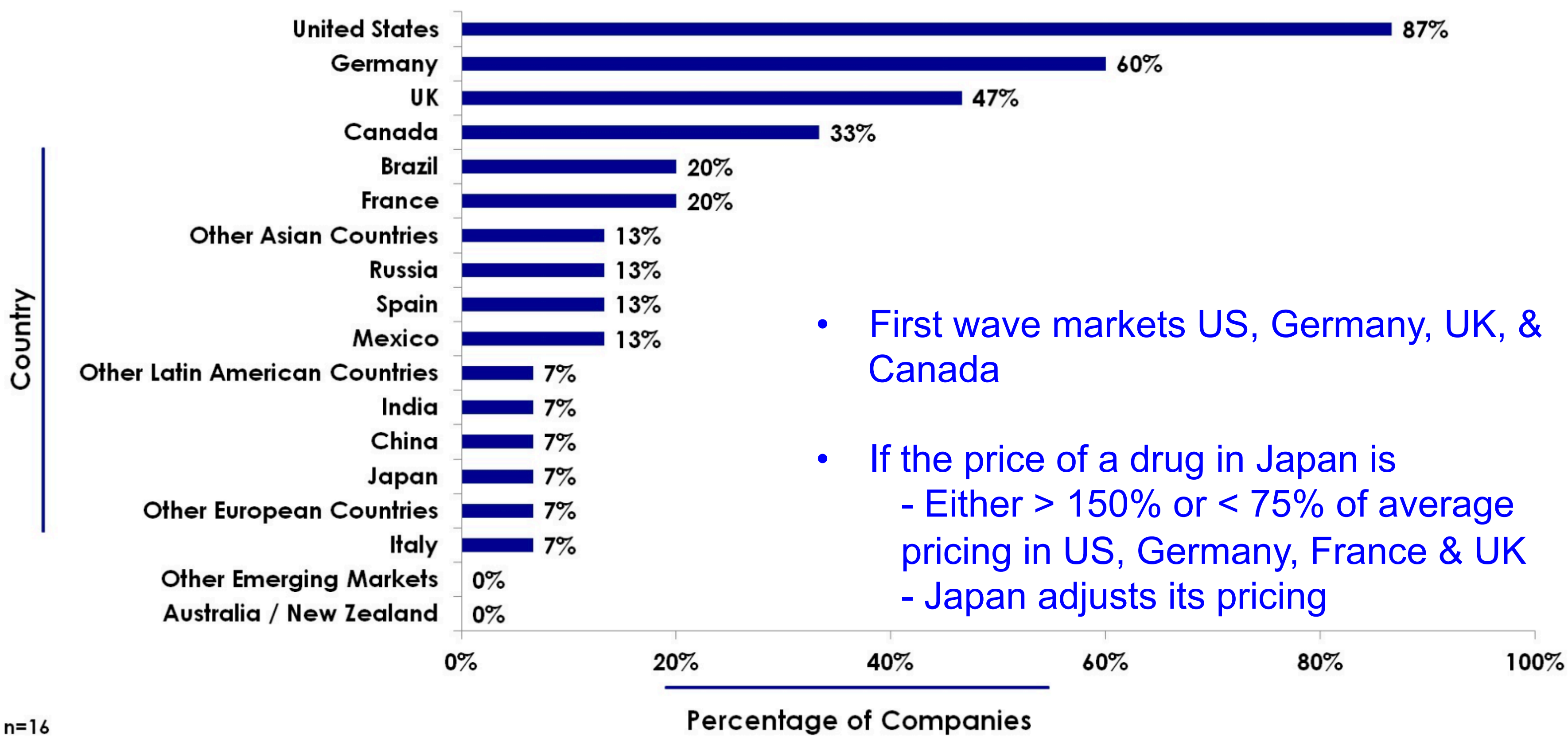
Global Pricing Strategy

Percentage of Companies Launching Products in Specific Countries During the First Wave



- First wave markets US, Germany, UK, & Canada
- If the price of a drug in Japan is
  - Either > 150% or < 75% of average pricing in US, Germany, France & UK
  - Japan adjusts its pricing

n=16

Source: Cutting Edge March 2013

- International price referencing can either make or break a company's market access strategy.

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Price Elasticity: Is it Sustainable?

- Biologic and orphan drugs pricing reaches stratosphere!
- Example; Gattex™ (short bowel syndrome), fourth drug approved in 2012 priced > $200,000 per patient/year
- Market for orphan drugs growing at a faster rate than the overall drug market
- Brand-name pharmaceutical prices have
  - Risen faster than inflation
  - Increased more than 13% from Sept. 2011 to Sept. 2012

Source: Fierce Biotech

PROMOTION

Launching The Drug: Promotion

- Align organization
  - Sales force, global/local, commercial/clinical
  - Optimize communication delivery vehicles
- Customize interaction mix for key customers
  - Physicians, patients, managed markets
- Partner with payers
  - Maximize preferred access while minimizing discounts
- Set clear sales targets for brands
- Measure both volume and brand equity performance
- Understand impact of programs on revenue, return on investments
- Monitor customer satisfaction

Promotion

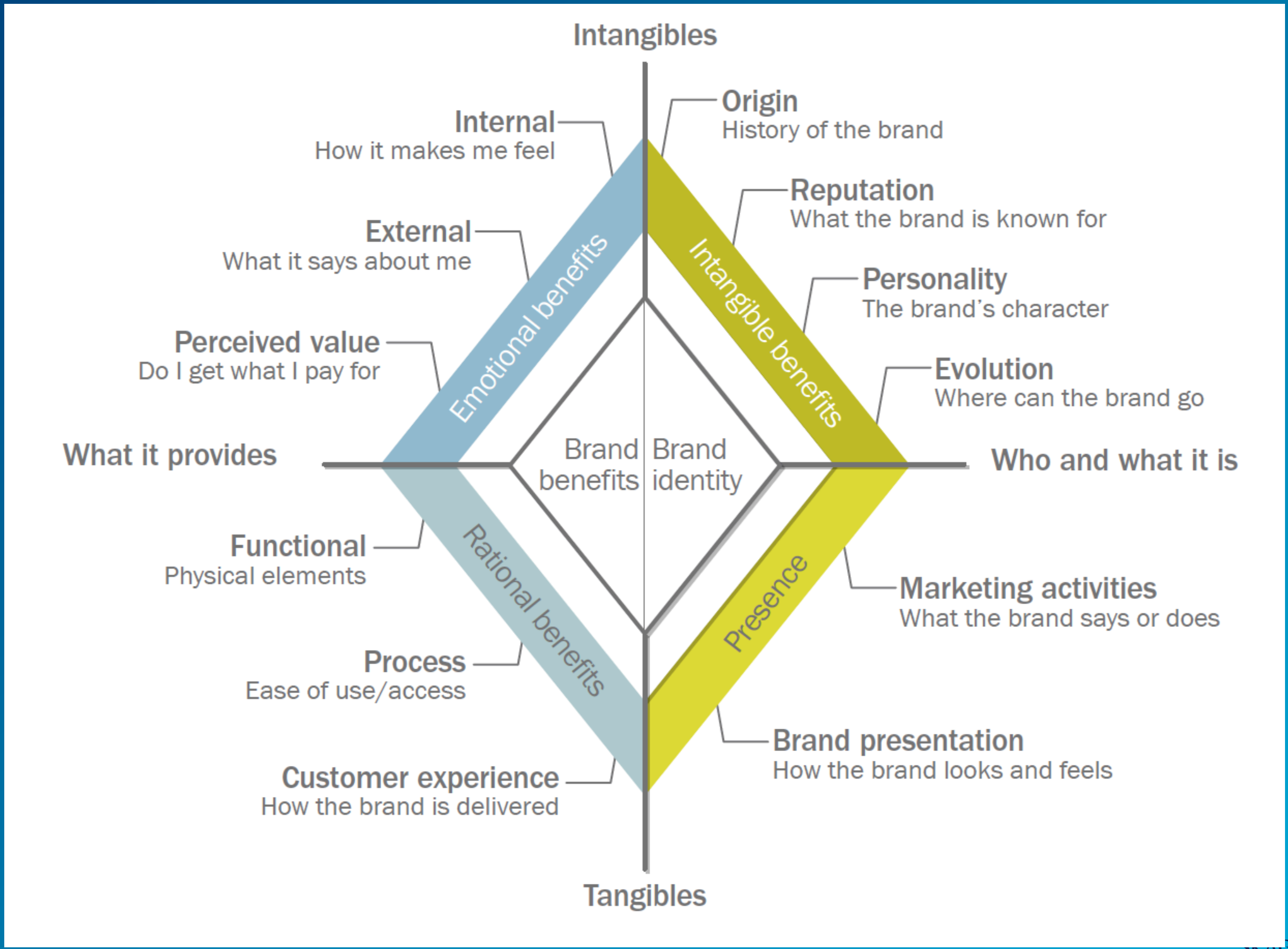
Payors →

	Primary focus of efforts is to manage…		
	Utilization	Cost	Predominant tactics
Patients	✓		• Benefit designs featuring higher patient out-of-pocket burden (e.g., higher deductibles, co-pays, co-insurance) • Disease management programs (i.e., ensure appropriate use and increase chronic-therapy compliance)
Providers	✓	✓	• More restrictive medical policy (e.g., prior authorisations, denials, step-edits, quantity limits) • Drug acquisition requirements (e.g., specialty pharmacy versus buy-and-bill) • Reduced reimbursement for drug and/or administration
Manufacturers		✓	• Discount/rebate-based contracts for access and/or preferred position (on pharmacy and/or medical benefit)

Market Share & Sales Driven By

- Broadest indications into large patient populations
- Sustainable competitive claims against marketed and products in development
- First in class and best in class
- Timing of line extension
- Promotion intensity, marketing budget
- Reimbursement

What Do Customers Think & Feel About Our Drug?



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PROMOTION

- Sales Force
- Other means of promotions
  - Direct to Consumer Advertising (DTCA)
    - TV, print magazines
    - Internet, Facebook, social media, advocacy groups
    - DTCA Promotional spending
      - Peaked at $5.9B in 2006 followed by 25% decline to $4.4B by 2010
      - In 2010; $370 million top 15 small molecule (8.8% of sales)
      - $33 million for the top 15 biologics (1.4% of sales) *
  - Medical Science Liaison
  - Publications
  - Promotion is one-way communication

Promotion is regulated & limited by FDA and other regulatory agencies

Promotion of Prescription Drugs to Consumers and Providers, 2001–2010; Rachel Kornfield, Julie Donohue, Ernst R. Berndt G. Caleb Alexander; PLOS ONE | www.plosone.org 1 March 2013 | Volume 8 | Issue | e55504

Changing Stakeholder Influence

In 2009, + 90,000 Pharma sales reps traversed nation's hospitals and doctors' offices, wooing doctors and dishing out free samples!

Influence and power of stakeholder from 2008-2013[1]

		National Payers	Local Payers	Physician	Pharmacist	Patient Groups	Key Opinion Leaders
U.S.	Primary	↑↑	↑↑	↓↓	↔	↑	↑
	Specialty	↑↑	↑↑	↓	↔	↑	↑↑
Canada	Primary	↑	↑	↓↓	↑	↑	↔
	Specialty	↑	↑	↓	↔	↔	↔
U.K.	Primary	↑	↑	↓	↑	↔	↓
	Specialty	↑↑	↑↑	↔	↔	↑	↔
France	Primary	↑	↑↑	↓	↑	↔	↓
	Specialty	↑	↑	↓	↔	↑	↓
Germany	Primary	↑	↑↑	↓↓	↑	↑	↔
	Specialty	↑↑	↑	↔	↓	↑	↔
Spain	Primary	↔	↑↑	↓↓	↑	↔	↑
	Specialty	↔	↑↑	↓	↑	↑	↔
Italy	Primary	↔	↑↑	↓↓	↑	↔	↓
	Specialty	↑	↑	↓	↑↑	↑	↓
Japan	Primary	↑		↔	↑	↔	↔
	Specialty	↑		↑	↔	↑	↑

[1] IMS Research

Note: An increase or decrease in power is specific only to the country and is not in comparison to other countries

Physician influence is declining while that of payers is increasing.

↑ INCREASE ↓ DECREASE ↔ STAY THE SAME

- Fundamental change in decision-makers
- Payer eclipsing physician in many markets
- Different markets are in different states
- Tailoring solution to local environment is essential to success

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Pharma Sales Rep Challenges

- Many primary-care doctors get paid by the office visit
- Physicians responses to pharmaceutical sales reps:
  - "I'm too busy to talk right now"
  - "Respect my time, please just drop off the literature and samples at the desk"

No Pharma Sales Reps Allowed!

- Cornering docs and spewing a quick pitch of products features and benefits rarely will work
- Physicians really don't listen – they are thinking:
  - How long will this take & how can I cut this conversation short?

Regulatory Rules

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FDA: Office of Prescription Drug Promotion

- Mission: "To protect the public health by assuring prescription drug information is truthful, balanced and accurately communicated."

- Accomplished through:
  - Comprehensive surveillance
  - Enforcement
  - Education program
  - Fostering better communication of labeling and promotional information to both healthcare professionals and consumers.

- OPDP regulates:
  - Sales representative presentations
  - Speaker program presentations
  - TV and radio advertisements
  - All written or printed drug promotional materials

FDA.gov; http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/UCM330855.pdf

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FDA: Prescription Drug Advertising Must

Prescription Drug Advertising must

- Be accurate
- Balance the risk and benefit information
- Be consistent with prescribing information approved by FDA
- Only include information that is supported by strong evidence

Common Violations

- Omitting or downplaying of risk
- Overstating the effectiveness
- Promoting off-label, or unapproved, uses
- Misleading drug comparisons

http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Surveillance/PrescriptionDrugAdvertisingandPromotionalLabeling/UCM209847.pdf

PHARMA NEW BUSINESS MODELS

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The New Marketing Model

The Four Cs: The customer’s perspective

- Customer
  - Profiling, patient stratification, payers, physician, government
  - What does each customer want
- Cost
  - Maximize customer value: Pharmacoeconomics
  - Reimbursement: Outcomes trials early before, during & after launch
- Convenience
  - On the customer’s term
  - Online detailing, ordering, mobile aps
- Communication
  - Two way communication, Internet ie: www.Sermo.com
  - Building meaningful interaction and relationships

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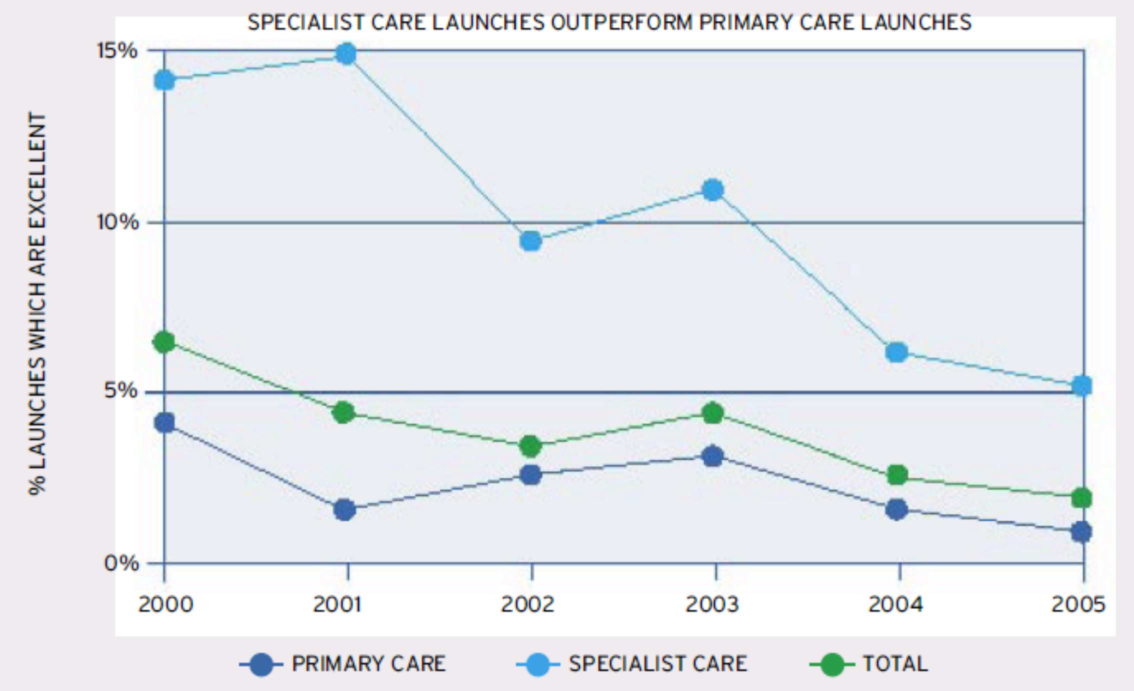
Achieving Launch Performance

- Payers' control over the use of new medications
- Many generic alternatives in almost all primary care therapy
- Abandoning tone-way messaging model to patients
- Moving to a consumer-centric model; views physicians as consumers
- Increasing number of specialist classes



New commercial models and launch excellence

For launch to achieve excellence, companies must address different:

- Environment
- Customers
- Approaches to market
- Timescales

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New Pharma Business Model

Forget blockbuster, one size fits all, let's go after

- Orphan drug business
  - 1,795 projects were in development, Oct 2011
  - Individually affect fewer than 200,000 people in the U.S.
  - Together estimated to affect over 25 million people
  - Broad range of diseases & conditions from enzyme storage disorders to rare cancers
  - Orphan drug approvals accounted for 30 % of approvals in most recent five-year period

- Therapeutic cancer vaccines
- Antisense therapies
- In vivo diagnostic
- Bioengineered vaccine
- Cell therapy, gene therapy
- Monoclonal antibody,
- Recombinant and transgenic products

http://www.phrma.org/pipeline; http://phrma.org/sites/default/files/2435/2013innovationinthebiopharmaceuticalpipeline-analysisgroupfinal.pdf

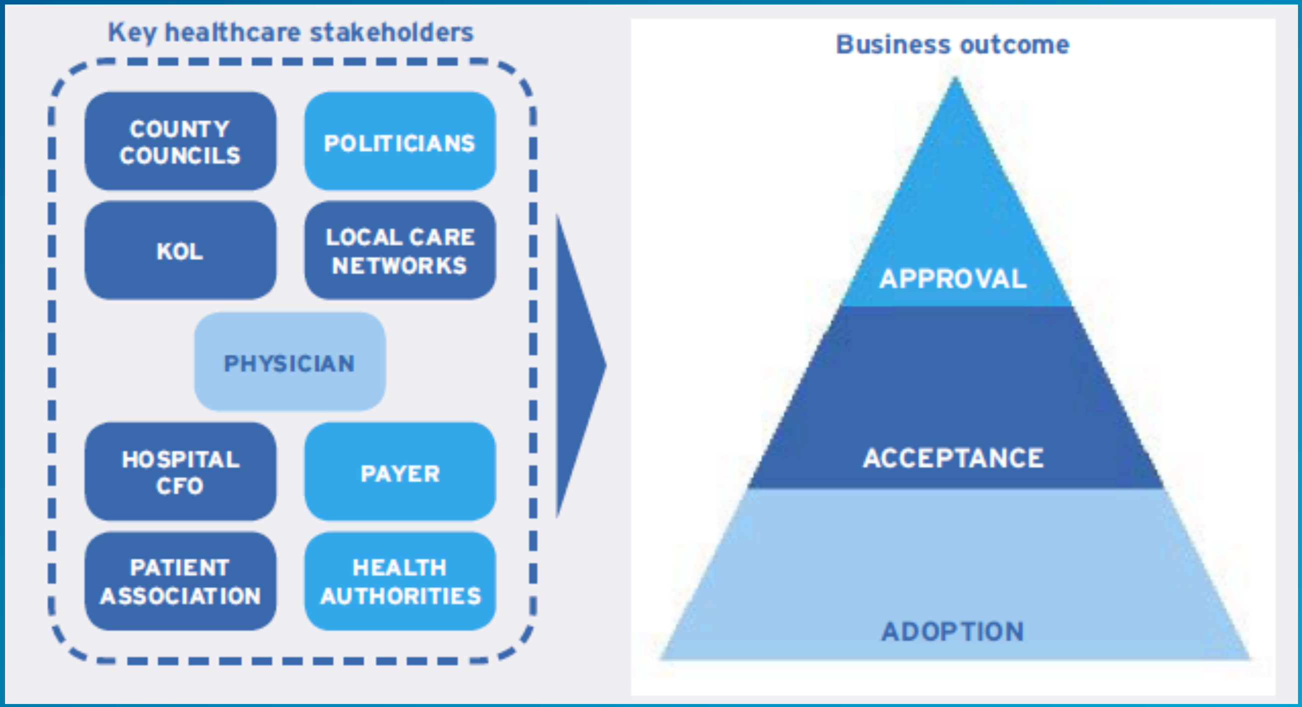
Mastering Stakeholder Complexity

New markets:

- Specialty market, dominant growth driver of global pharma industry
- Oncology forecast to be world's leading pharmaceutical sector

Changed environment requires new commercial model

- Greater attention to payers & to gaining market access
- Greater investment in outcomes trials before, during and after launch



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Address Payers Effectively: 7 Steps

1. Identify & understand the funding flows for the disease area
2. Identify the decision makers controlling these funds
3. Understand what motivates decision makers and criteria
4. Adapt product development based on insights into decision making criteria
5. Develop value dossiers tailored to each type of payer, segmented both by group and motivation type
6. Before & during launch, target the segmented payers with appropriate communication; Using digitally-based commercialization approaches
7. Monitor the impact of all activities

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Increasing Challenge of Specialty Prescription Medication Spending

- Require specialized handling or administration, frequent dosing adjustments, and intensive clinical monitoring & patient assistance

- Affecting less than 2 percent of the US population, in 2012 accounted for 24.5% of the country's total drug spend

- Four of the US 15 costliest diseases in drug spend are treated with specialty medications
  - Inflammatory conditions
  - Multiple sclerosis
  - Cancer
  - HIV

Firece Pharma

“Owning the Patient”

Demand Side

- Develop medical management or wellness programs

- Assess other non-traditional service offerings which could serve as logical bundling opportunities

- Serve as a patient advocate, supporting the patient with education and assistance in making informed health care decisions

New Sales Rep = Customer Relationship Manager

Obsolete: Monolithic sales force; every rep is charged with same tasks

- New Sales Forces = Customer Relationship Manager (CRM)
  - Build adoption at individual customer level
  - Build acceptance & approval with payers

- New CRM = New set of skills
  - Account management
  - Ability to manage strategic relationships with all levels in an organization
  - B to B selling skills
  - Ability to deal with broad range of stakeholders:
    - Physicians, payers, nurses, key opinion leaders and patients
  - Coordination with team of individuals in overlapping roles
  - Develop payer insights, create payer value, & drive demand
  - Provide information in nearly real-time with mobile technology

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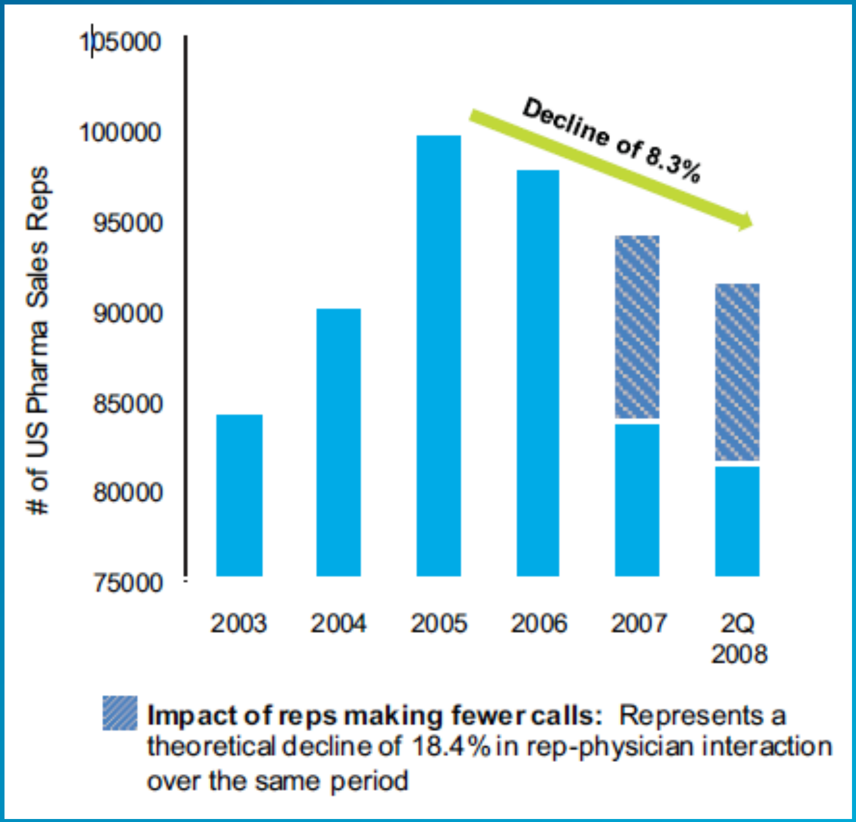
What Would Happen if All Traditional Pharma Reps Went Away?

- Many people say: Everyone would be better off!
- Reps cost pharma $B
- Drain scarce physician time
- Provide little of the results-based information increasingly demanded by providers, patients, payers, and regulators

Decline in U.S. Pharmaceutical Reps



Source: Fierce Pharma

Pharma's New U.S. Commercial Model Deloitte Development

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The “New Independent Rep”

- Specialize in specific therapeutic area
- Background and skill set with greater clinical expertise
  - M.D., PharmD, Nurse Practitioner, Physician Assistant, or Nurses
- Representing all relevant treatments in the range of pharma companies
- Relying on outcomes-based research and comparative data
- Maintain unbiased stance
- Pharma would not be able to differentially compensate for different branded treatments, avoid bribery

Example of a Independent Rep:

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In Conclusion
Sustainable Competitive Marketing Strategy

Key levers* —— **Competitive intelligence** ——→

- Optimal competitive differentiation strategy (product positioning, messaging)
- Quality/strength of clinical evidence
- Range of approved/on label indications and/or dosing requirements
- Phase IV strategy

- Physician segmentation and prioritisation
- Value proposition by segment for physicians (and other members of practice)
- Patient value proposition (brand and corporate image, patient education, PR/advocacy group/media strategy)
- Access and reimbursement support programs, and persistence programs

- KOL outreach strategy and plan
- Publication strategy
- Scientific/medical event plan
- Medical liaison effectiveness
- Professional training
- CME

- Overall sales force size and coverage
- Rep skills and capabilities
- Sales aids and tools
- Key account approach and management
- Targeting, call plan and territory modeling
- Sales force compensation/incentive
- Sales support systems

- Supply chain and distribution
- Processes, systems and technology to ensure service that meets customer needs
  - Sales processes
  - Finance/terms
  - Other

KOL: Key Opinion Leader management and medical marketing

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Thank You

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Novel Therapies Address Unmet Needs

Selected Product Launches 2009-2013

Disease area	Launched	Upcoming
Arrhythmia	Brinavess™ (vernakalant) Multaq® (dronedarone)	
Autoimmune	Simponi® (golimumab) Stelara™ (ustekinumab)	tofacitinib (JAK inhibitor)
Diabetes	Nesina® (alogliptin, DPPIV) Onglyza™ (saxagliptin, DPPIV) Victoza® (liraglutide, GLP-1) Bydureon™ (exenatide, GLP-1)	canagliflozin (SGLT2) dapagliflozin (SGLT2) lixisenatide (GLP-1) Tradjenta™ (linagliptin, DPPIV)
Hepatitis C	Victrelis™ (boceprevir, NS3-4A PI) Incivek® (telaprevir, NS3-4A PI)	
Lupus	Benlysta® (belimumab)	
Melanoma	Yervoy™ (ipilimumab)	vemurafenib
Multiple sclerosis	Ampyra® (fampiridine, oral) Gilenya® (fingolimod, oral)	laquinimod (oral) ocrelizumab teriflunomide (oral)
Osteoporosis	Prolia® (denosumab)	
Thrombosis/ Acute coronary syndrome	Brilique™ (ticagrelor, P2T), Effient® (prasugrel, Xa) Pradaxa® (dabigatran etexilate, Xa)	Eliquis® (apixaban, Xa)
Prostate cancer	Firmagon® (degarelix) Jevtana® (cabazitaxel) Provenge® (sipuleucel-T) Zytiga™ (abiraterone acetate)	

Source: IMS Health