PRESCRIPTION MEDICINES: COSTS IN CONTEXT

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Vice-president
Takeda Pharmaceuticals, U.S.A., Inc.
Our Footprint is Global

- Global Pharma Company
- 70+ Countries with market presence
- 6 key markets: Japan / U.S. / Europe / China / Russia / Brazil
- 30k+ Employees worldwide
- #1 Pharma Company in Japan
- FY2015: $14B USD
Takeda has a strong commitment to the U.S., with more than 5,000 employees across multiple business units, including TPUSA, R&D facilities, manufacturing operations and the headquarters for our Oncology and Vaccines business units.
MEDICINES ARE OFTEN SINGLED OUT BY INSURERS for High Cost Sharing and Restrictions on Access

On average, patients pay out of pocket nearly 20 PERCENT OF THEIR TOTAL PRESCRIPTION DRUG COSTS COMPARED TO 5 PERCENT OF HOSPITAL CARE COSTS*

*Includes brand and generic
High Cost Sharing Reduces Adherence

RAND researchers found that doubling copays reduced patients’ adherence to prescribed medicines by 25% to 45% and increased emergency room visits and hospitalizations.

Source: Goldman DP, et al.9
Spending on Retail Prescription Medicines is THE SAME PERCENTAGE OF HEALTH CARE SPENDING TODAY AS IN 1960 – 10%

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

Health Care Dollar, 2014

$0.10
Prescription Drugs

$0.32
Hospital Care

$0.20
Physician and Clinical Services

$0.08
Home Health and Nursing Home Care

$0.07
Government Admin. & Net Cost of Private Health Insurance

$0.23
Other*

*Other includes dental, home health, and other professional services as well as durable medical equipment costs.

Projected Total Spending on Retail and Non-Retail Brand & Generic Medicines and Pharmacy Costs, Through 2024

Medicines Account for a Small Share of Health Spending Differences Between the United States and Other Countries

Per Capita Health Care Spending in the United States, Canada, and Germany, 2013

For example, medicines account for 6% of the difference in total health care spending between the United States and Canada and 9% between the United States and Germany.

Source: PhRMA analysis based on Organisation for Economic Co-operation and Development data.
## Medicaid Rx Spending, With and Without Rebates

*Spending on drugs (brand, generic and pharmacy) was just 4.9% of total Medicaid Spending in 2014 – down from 5.3% in 2010*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Medicaid Expenditures (Billions $)</th>
<th>Pre-rebate Rx Expenditures (Billions $)</th>
<th>Post-rebate Rx Expenditures (Billions $)</th>
<th>Pre-rebate Rx Share %</th>
<th>Post-rebate Rx Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$398B</td>
<td>$32.9B</td>
<td>$21.1B</td>
<td>8.3%</td>
<td>5.3%</td>
</tr>
<tr>
<td>2011</td>
<td>$408B</td>
<td>$37.6B</td>
<td>$21.5B</td>
<td>9.2%</td>
<td>5.3%</td>
</tr>
<tr>
<td>2012</td>
<td>$424B</td>
<td>$37.8B</td>
<td>$20.2B</td>
<td>8.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2013</td>
<td>$449B</td>
<td>$37.5B</td>
<td>$18.9B</td>
<td>8.4%</td>
<td>4.3%</td>
</tr>
<tr>
<td>2014</td>
<td>$498B</td>
<td>$42.6B</td>
<td>$21.9B</td>
<td>8.5%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2015</td>
<td>$561B</td>
<td>$51.7B</td>
<td>$27.7B</td>
<td>9.2%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Source: Menges Group calculations from NHE, CMS data
The Biopharmaceutical Sector is the single largest funder of business R&D in the United States

Share of Total US Business R&D by Industry, 2011*

- Phamaceuticals & Medicines: 21%
- Software: 11%
- Semiconductors: 9%
- Automobiles: 4%
- Communications Equipment: 4%
- Aerospace: 3%

The remaining 48% share of business R&D spending is conducted by other industries including subsectors of the machinery sector, the electrical equipment sector, and the professional, scientific, and technical services sector among others.

*Source: National Science Foundation

Prescription Medicines: Costs in Context  www.phrma.org/cost
THE ECONOMIC REACH
of the US Biopharmaceutical Industry

THE BIOPHARMACEUTICAL INDUSTRY SUPPORTED 3.4 MILLION JOBS ACROSS THE US ECONOMY IN 2011.

- 814,000 DIRECT JOBS
- 1,022,000 INDIRECT JOBS
- 1,528,000 INDUCED JOBS

INNOVATIVE BIOPHARMACEUTICAL INDUSTRY
VENDORS AND SUPPLIERS
ADDITIONAL PRIVATE ECONOMIC ACTIVITY

3,364,000 TOTAL JOBS
Chronic Disease is TRUE HEALTH CARE COST DRIVER

Chronic diseases drive 80% of health care spending

Chronic diseases, such as cancer, diabetes and heart disease are the leading causes of death and disability in the United States

The annual cost burden of diabetes is $174 billion

Source: CDC
PRAGMATIC SOLUTIONS

to Address Cost Concerns

MODERNIZE THE DRUG DISCOVERY AND DEVELOPMENT PROCESS
- Increase competition by reducing the generic backlog at FDA, and providing financial and/or regulatory incentives to encourage generic entry for older, off-patent drugs for serious conditions
- Modernize the FDA to keep pace with scientific discovery and drive greater efficiencies in the discovery and development of new treatments and cures

PROMOTE VALUE-BASED HEALTH CARE
- Address barriers to paying for value by confronting regulatory barriers that impede companies from entering into innovative contracts

ENGAGE AND EMPOWER CONSUMERS
- Make quality and cost information public to aid in decisions, and enforce common-sense rules that prevent discrimination against vulnerable patients

ADDRESS MARKET DISTORTIONS
- Improve risk adjustment models, and reform the 340B program