PhRMA Days Press Conference

April 12, 2017

Joaquin Duato Chairman of the Board, PhRMA



Roadmap

- I. Recent Developments in the United States
- II. Biopharmaceutical Industry's Contribution to Innovation and Economic Growth in Japan

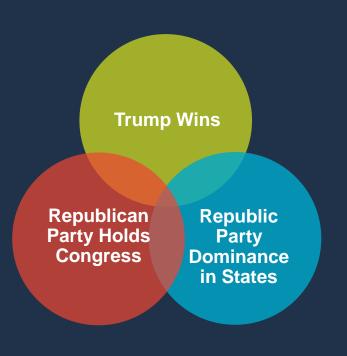


January 31 Meeting with President Trump





PhRMA's Key Messages for the Trump Administration



- The U.S. should continue to lead the world in medical innovation
- Policymakers should seek strong trade agreements that level the playing field
- Government regulations should be modified to enable the private sector to lead the move to a value-driven health care system
- We need to modernize the FDA to bring safe medicines to the market faster, enhance competition and help control overall health care costs



Defend Against Flawed Policy Proposals

FLAWED PROPOSALS

Allow Medicare to "negotiate"

prices for prescription drugs

REALITY

Congressional Budget Office directors of both parties have said Medicare would not be able to negotiate further savings

Not a single Department of Health and Human Services Secretary has been able to certify importation will pose no risk to public health and generate cost savings

Misleading picture of true R&D costs; fails to give patients the info they want and need



Allow patients to import medicines from other countries

Transparency of R&D costs for individual medications



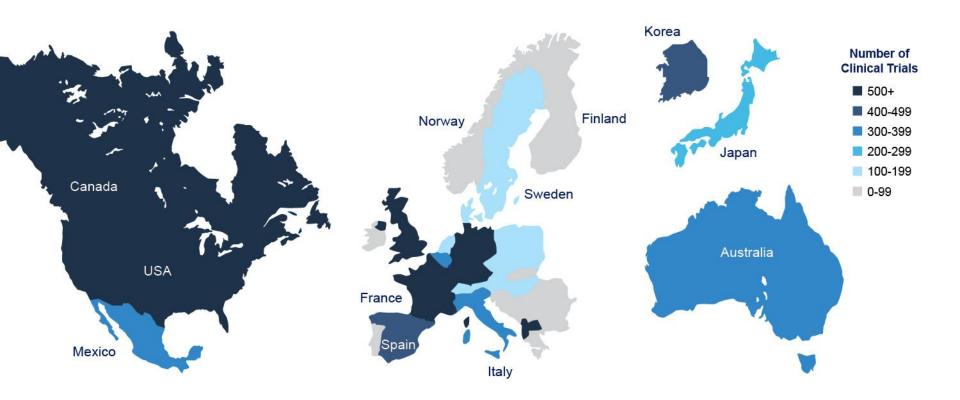
Roadmap

- I. Recent Developments in the United States
- II. Biopharmaceutical Industry's Contributions to Innovation and Economic Growth in Japan



Industry-Sponsored Clinical Trials Contribute Significant Value to the Countries in Which They Are Located

In 2015, the biopharmaceutical industry sponsored 9,059 clinical trials around the world





Industry Has Continued to Increase Investment in Clinical Development across Japan

Number of PhRMA Japan and EFPIA Japan Member Company Sponsored Clinical Trials, 2015

Number of clinical trials conducted

101-200

31-100



16+ Therapeutic Areas

- Cardiology
- Dermatology
- Endocrine Metabolic Disease
- Gastroenterology
- Hematology
- Immunology
- Infectious Disease
- Musculoskeletal Disease
- Ophthalmology
- Respiratory Disease
- Urology
- Rare Diseases
- Others

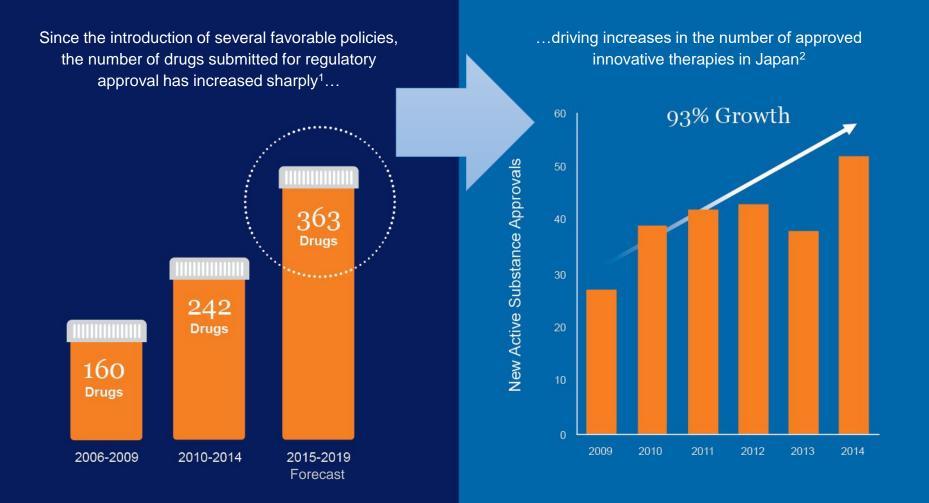


are located¹

Note: Represents all Phase 0 through Phase IV clinical trials registered with Clinical Trials.gov Database in 2015. Individual sites participating in multiple trials are counted multiple times Source: 1PhRMA and EFPIA, 2016, Research in your backyard Japan: Contribution of PhRMA and EFPIA member companies to Japan's society and economy through clinical trials of innovative medicines

200 +

Favorable Policies and Reductions in Approval Times Have Led to Significant Increases in Available Innovative Therapies





Note: 127 companies responded on new drugs that have been submitted or will be submitted for regulatory approval in Japan between 2006-2019 (Excludes drugs developed at the request of MHLW). Source: 1PhRMA, 2016, Views and requests on drug price revision; ²Pharmaceuticals and Medical Devices Agency, Product approvals by FY 2009-2014.

Medicines Are Transforming the Treatment of Many Difficult Chronic Diseases



Cardiovascular Disease

Between 2000 and 2012, the death rate from cardiovascular disease dropped 27% in Japan.² New PCSK9 inhibitors continue to revolutionize therapy for high cholesterol.

Diabetes

Between 2000 and 2012, new therapies contributed to a 20% decline in the diabetes death rate in Japan.²

Rheumatoid Arthritis

The recent introduction of disease-modifying therapies has dramatically improved the lives of patients and caregivers by slowing and sometimes even reversing negative physical symptoms of the disease.³

Drugs In Development in Japan^{1*}

42

 $\mathbf{28}$

35



Death rates for non-communicable diseases

declined by

18% in Japan from 2000 to 2012²

PhRMA

*Medicines in Phase I through Phase III of development. Note: The four main types of chronic diseases defined by WHO are cardiovascular diseases (e.g. heart attacks and stroke), cancers, chronic respiratory diseases (e.g. chronic obstructed pulmonar disease and asthma) and diabetes. Source: ¹US Food and Drug Administration; ²WHO Mortality Database (accessed February 2016); ³Kremer, 2008, "COMET's path, and the new biologicals in rheumatoid arthritis," Lancet.

Without Investment in New Medicines the Cost of Disease Could Bankrupt the Japanese Health Care System

In 2014, the societal cost of dementia was ¥14.5 trillion, nearly 3% of Japan's GDP^1



100,000

The number of people quitting their jobs each year to care for sick family members¹

~50%

The percentage of the societal care cost for dementia that is borne by families¹

30 months

The amount of time spent in nursing home care per patient that could be delayed if currently available medicines were used for at least 9 months²

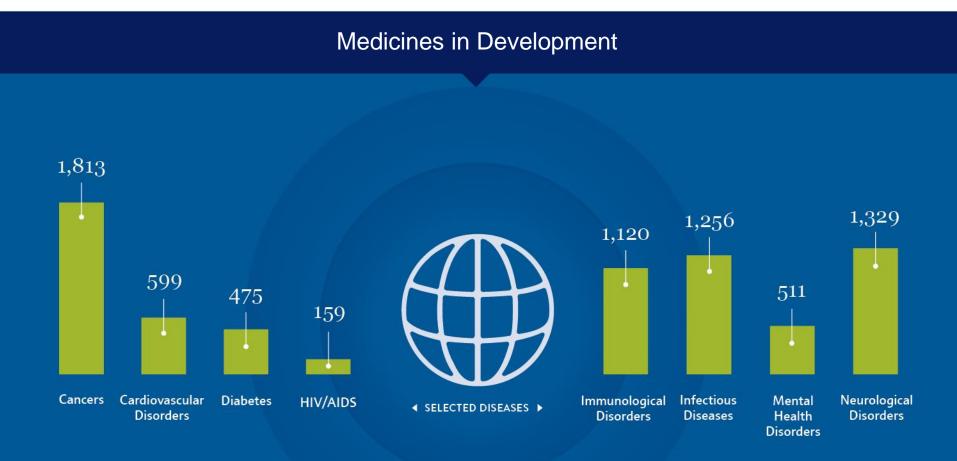
By 2060, the projected societal costs of dementia are estimated to be





Source: ¹Ministry of Health, Labour and Welfare, 2015, International Conference on Cognitive Decline and its Economic Consequences; ²Provenzano et al., 2001, "Delays in nursing home placement for patients with Alzheimer's disease associated with treatment with donepezil may have health care cost-saving implications," Value in Health.

More Than 7,000 Medicines Are in Development Around the World





Note: Represents all products currently in Phase 0 through Phase IV clinical trials and regulatory review. Each product is counted exactly once, regardless of the number of indications pursued. Source: Adit R&D Insight Database (accessed March 2016).

12

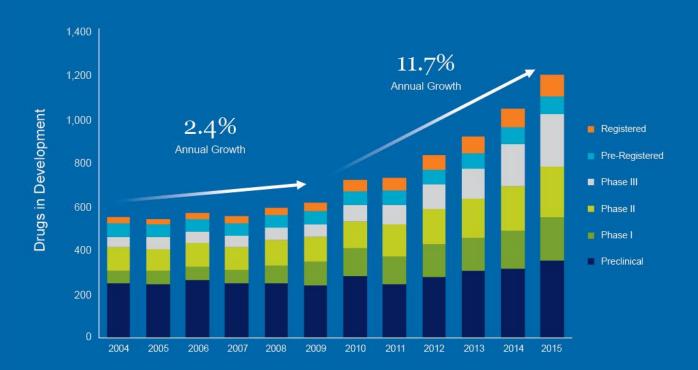
Development of Innovative Medicines Has Accelerated, Providing Hope for New Therapies and Creating Economic Activity

+

Over 1,000 medicines

are in development in Japan today, providing hope for patients in need of new medicines and supporting tangible economic activity in terms of R&D employees and clinical trials

Japanese Clinical Development Pipeline





Global Challenges Loom that Threaten Continued Innovation and Patient Access to Medicines





In Japan, Uncertainty and Unpredictability Threaten Progress Made Over the Past Decade



Japan Biopharmaceutical Innovation

Innovation is harder and more costly

 Per-patient clinical trial costs in Japan are two to six times higher than anywhere else in the world¹ Investments in innovation are increasingly risky given the unpredictability of the Japanese market

- The Price Maintenance Premium is now subject to a zero-based review.
- Further reduction of drug prices will make R&D investment and drug launch in Japan less attractive³
- The stagnant Japanese economy is a risk to future investments in health care

Challenges exist impeding patient access

- "Optimal Use Guidelines" are introducing uncertainty in the new product adoption process
- HTA that imposes cost-effectiveness thresholds threatens to undermine innovation and reverse progress on patient access to innovative medicines⁴



Source: ¹PPD, 2013, Conducting clinical trials in Japan: a CRO perspective; ²IHS Markit, 2015, Japan's comprehensive strategy for pharmaceutical sector calls for innovation and M&A; ³PhRMA, 2016, Views and requests on drug price revision; ⁴EFPIA, 2015, EFPIA viewpoint: health technology assessment (HTA) application in select markets and implications for Japan.

Putting Spending on Prescription Medicines in Perspective across Key Developed Markets

	USA	Japan	Germany	France	UK	Italy	Canada	Spain
Total Spending on Hospital Care, 2014	\$1,786B	\$271B	\$191B	\$124B	\$117B	\$92B	\$70B	\$73B
Total Spending on Prescription Medicines, 2014	\$277B	\$82B	\$49B	\$34B	\$29B	\$29B	\$22B	\$16B
Ratio (Hospital Care / Prescription Medicines)	6.4	3.3	3.9	3.6	4.0	3.2	3.2	4.6



SPENDING ON Prescription Medicines



SPENDING ON Hospital Care Expenditure on hospital care across countries is **3-6 times the total spending** on prescription medicines



Note: Top seven countries ranked by total health care spending in the OECD. Hospital care includes all curative and rehabilitative care. Pharmaceutical spending for Japan is from 2013, the most recent year reported.

Source: Health Advances analysis; OECD Health Statistics Database (accessed October 2016); ABPI analysis of UK National Health Service data; Farmindustria analysis of Italian Medicines Agency (AIFA) and Italian National Institute for Statistics (Istat) data.

Medicines Are Part of the Solution and More Can Be Done Together

Governments, Providers, and Payers



Biopharmaceutical Companies

Continue developing innovative therapies, promote medication adherence, and maintain efforts to support broad patient access



Basic Principle:

 The benefits a pro-innovation agenda brings to patients and Japanese economic growth must be considered, instead of focusing solely on cost-cutting

Our Conclusion:

 Further efficiencies to our sector can bring cost-savings while allowing continued support of pro-innovative policies to help alleviate health burdens for patients and also to stimulate economic growth



To support these, PhRMA's members have:

- Created a new "Vision" for the Japanese healthcare system
- Developed a set of technical proposals for each element of the reform plan

Activities:

- Strong collaboration with industry partners to develop proposals addressing stated concerns of the Japanese government
- Frequent meetings with MHLW and other government officials to exchange views and deliver possible solutions
- Engagement with other Japanese stakeholders to increase their understanding of industry positions and proposed solutions



PhRMA's Vision: Making Japan the best place to live and age

