



The Promise of Medicine: Our Commitment to Combating COVID-19 and Other Serious Diseases with Innovation

Giovanni Caforio | Chairman of the Board

October 9, 2020

PhARMA
RESEARCH • PROGRESS • HOPE

Today's Agenda

- Progress on COVID-19 Treatments and Vaccines
- Continued Advances to Address Unmet Medical Needs
- Learnings from COVID-19 – Sustainability and Pro-Innovation Policies
- PhRMA as a Constructive Partner

Our Commitment to *Beat* Coronavirus

We are **rapidly screening our vast global libraries of medicines** to identify potential treatments and have numerous clinical trials underway to test new and existing therapies

We are **dedicating our top scientists and using our investments in new technologies** to speed the development of safe and effective vaccines

We are **sharing the learnings from clinical trials in real time** with governments and other companies to advance the development of additional therapies

We are **expanding our unique manufacturing capabilities and sharing available capacity** to ramp up production once a successful medicine or vaccine is developed

We are **collaborating with government agencies, hospitals, doctors and others** to donate supplies and medicines to help those affected around the world

We are **working with governments and insurers** to ensure that when new treatments and vaccines are approved they will be available and affordable for patients

Incredible Progress in a Few Short Months

Early Phase Research

- January 10, 2020
 - COVID-19 virus sequenced
- Early in 2020
 - Pre-clinical testing began to assess potential pathways
 - Many approaches pursued to increase odds of success

Progress To Date*

- **1,634** active global clinical trials
- **534** unique therapies being tested
- **43** unique vaccines being tested

**As of October 2, 2020*

Vaccines Advance with New Technologies and Increased Collaboration

Developing a Coronavirus Vaccine

1. Identify & Sequence the Virus
2. Determine the Target
3. Conduct Preclinical Trials
4. Conduct Clinical Trials
5. Obtain Regulatory Approval
6. Manufacturing & Distribution

SARS (2003)

Breakout

20 Months

Human Trials of Vaccine Candidates

COVID-19 (2019)

Breakout

61 Days

Human Trials of Vaccine Candidates

Speed Will Not Compromise Vaccine Safety and Efficacy

“The biopharmaceutical industry is confident we can beat COVID-19 because science guides every aspect of our work. Our industry is committed to ensuring the highest of standards of research, clinical testing and manufacturing are upheld throughout the vaccine research and development process.

The decades-long investments biopharmaceutical companies have made in **new technologies, research and previous vaccines have prepared our industry to act swiftly, without cutting corners, to respond to the COVID-19 pandemic and we're confident science will win.**”

-Stephen Ubl, president and CEO of PhRMA



September 8, 2020

9 vaccine makers sign safety pledge in race for Covid-19 vaccine

Speed of Response is Bolstered by Industry Collaborating in Unprecedented Ways

Partnerships that typically take months to plan and formalize are now coming together in a matter of weeks.

Partnerships Between Industry



August 31, 2020

Takeda sets up deal to distribute Moderna's COVID-19 vaccine in Japan

Public-Private Partnerships



June 29, 2020

WHO ACT-Accelerator prioritizes global vaccine approach

Working with Japan to Achieve a Prosperous “Post-COVID-19” Japan

Treatments and Vaccines

- Donated medicine
- Collaborated with the Japanese government
- Started Phase 1 clinical trials in Japan

Donations and In-kind Support

- Gave tens of millions of yen in financial support
- Donated hundreds of thousands of medical supplies
- Launched matching employee gift and new scholarship programs

Stable Supply / Manufacturing

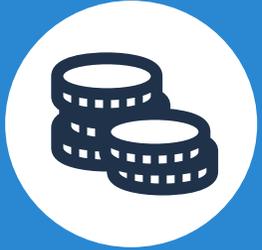
- Monitoring supply chain conditions to ensure stable supply of medicines
- Ramping up output of existing medicines with demonstrated benefit
- Expanding strategic partnerships and investing in infrastructure

Industry Effort to Combat COVID-19

新型コロナウイルス感染症に関する最新情報

<http://www.phrma-jp.org/coronavirus>

Beyond COVID-19 Treatments and Vaccines, Medicines Bring Value to Japan



INVESTMENT

Over the past two decades, PhRMA members have invested nearly \$1 trillion in R&D



PATIENTS

Patients are living longer, healthier, and more productive lives



HEALTH CARE SYSTEM

Medicines can put the health care system on a more sustainable path by reducing need for more expensive services



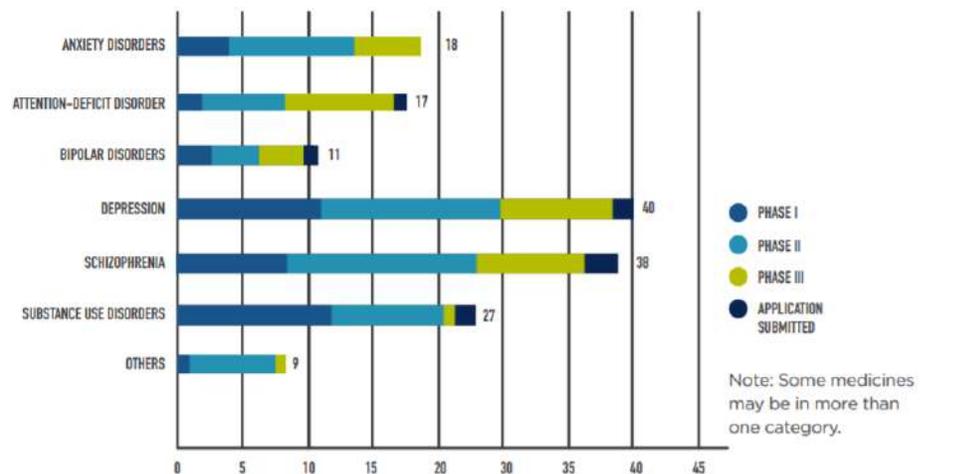
ECONOMY

The biopharmaceutical industry creates jobs, R&D investment and medicines that improve worker productivity

Industry Continues Fighting and Innovating

Focus on Mental Health

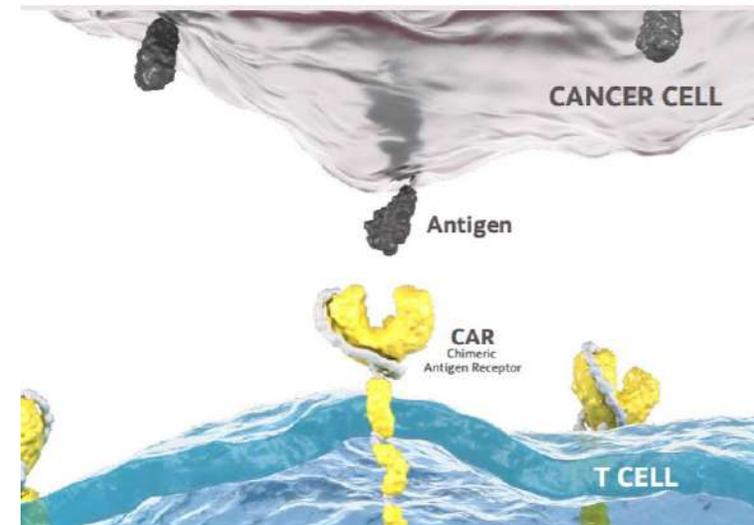
Medicines in Development by Disease and Phase



Researching Cancer Medicines

Bristol Myers Squibb

Targeting Cancer with Cell Therapy



CAR T cell therapy reprograms immune cells for a personalized attack on cancer

Applying Learnings from COVID-19 to Ensure an Effective and Resilient Health Care System in Japan



**SUPPORT
INNOVATION**



**HEALTH AS AN
INVESTMENT**



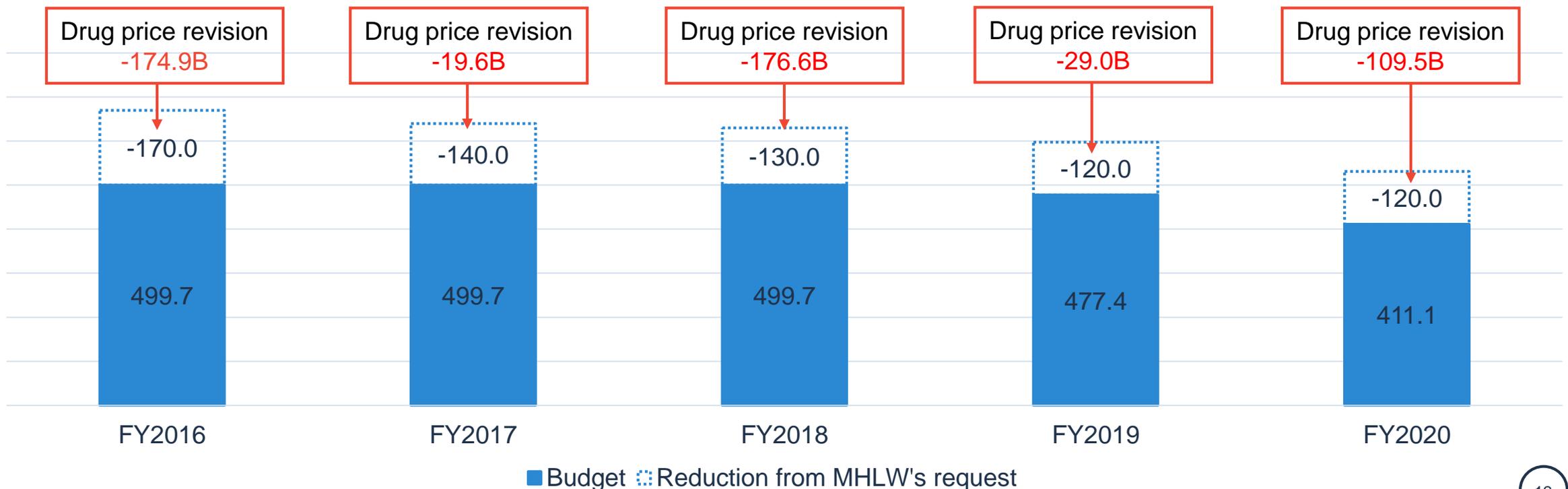
**PROMOTE DIGITIZATION
OF HEALTH CARE**

A comprehensive reform of the health care system is needed to ensure an efficient and effective allocation of resources

Relying on Drug Price Revisions to Fund the Social Security System is Unsustainable

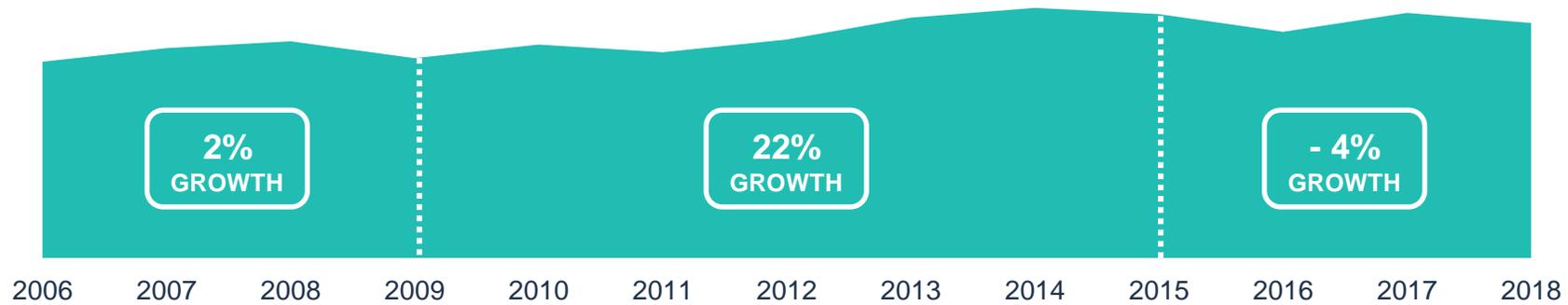
75% of total savings (509.6B yen) over the last 5 years came from drug pricing revisions

Social security budget growth (central government expenditure basis)

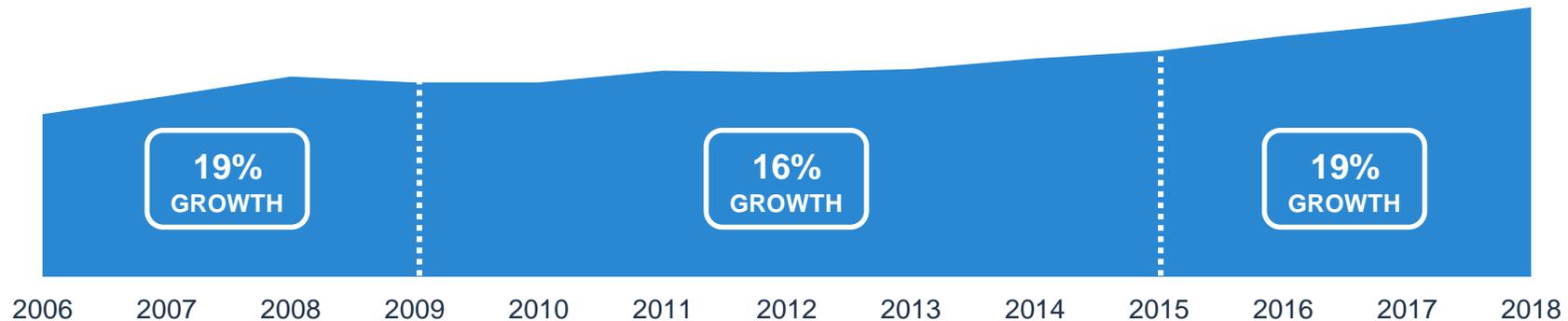


Policy Changes Impact Biopharmaceutical Investment in Japan

Biopharmaceutical Industry R&D Investment in Japan



Biopharmaceutical Industry R&D Investment Globally



Pro-Innovation Policies are Vital to Prevent, Treat and Cure All Diseases, Including COVID-19



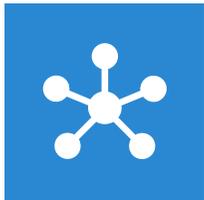
Annual Price Cuts

Maintain the biennial price revision system for innovative products. Limit the scope of products subject to annual price revisions to non-innovative products.



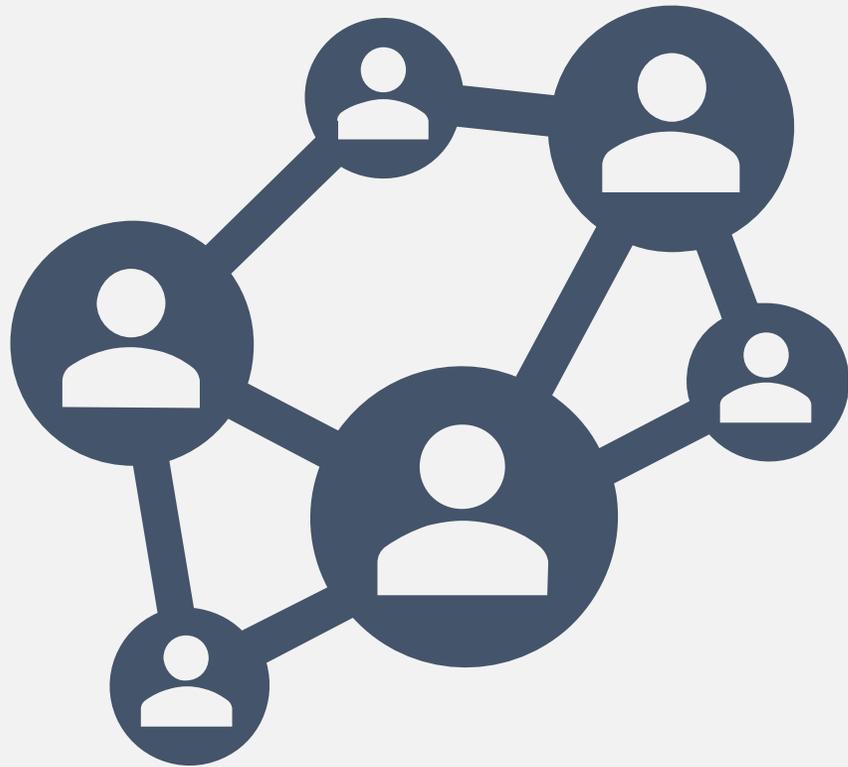
Price Maintenance Premium (PMP)

Revise the new PMP rules to ensure that the system is fair, science-based, and rewards truly innovative products and companies.



Health Technology Assessment (HTA)

Ensure that the HTA system does not delay patient access and is only applied at post-launch to validate a product's premium based on criteria that recognize the full value of innovative medicines.



Doing Our Part as a Constructive Partner in Post-COVID-19 Japan

PhRMA is committed to working with key stakeholders to apply learnings from COVID-19 to promote the sustainability and resiliency of Japan's health care system as well as to ensure that appropriate incentives are in place to enable timely access to innovative, life-saving medicines and continued investment in Japan.