IQVIA Solutions Japan

Pharma Market Insights Japan Pharmaceutical Spend: Outlook to 2024

March 2020 Update
including the Impact of COVID-19

Updated / Revised Assumptions

April 2020 NHI Price Revision Assumptions

- April 2020 NHI Price assumption (NHI only annualized): -4.2% (vs. -4.5% previous forecast)
  - Lower NHI Price impact for Protected Brands
  - Lower NHI Price impact for Generics
  - Higher NHI Price impact for Long-Listed Products
- Subsequent NHI Price Revision Assumptions - no change vs. original forecast

January ~ March 2020 Demand Impact from October 2019 Consumption Tax Increase
(excluding impact from COVID-19)

- Negative demand impact of consumption tax hike was less than expected
- +0.4ppt upward volume adjustment for January ~ March 2020 quarter
- No change vs. original forecast for subsequent quarters

Seasonal and Other Demand/Volume Events Assumptions
(excluding impact from COVID-19)

- Warmer-than-normal temperatures in February/early March 2020 saw an early start to the allergy / hay fever season, however the severity will be in-line with previous years
- No change vs. original forecast for demand/volume events o an annualized basis

Protected Market and NAS (New Active Substances)
(excluding impact from COVID-19)

- NAS (2015 ~ 2019) contribution in 2019 was in-line with expectations
- Future NAS contribution to remain in-line with expectations – no change vs. original forecast
- Protected brand growth in 2019 was in-line with expectations
- Future protected brand growth to remain in-line with expectations – no change vs. original forecast

Unprotected Market (Long-Listed Products and Generics)
(excluding impact from COVID-19)

- Long-listed product (LLP) growth slightly better than expected in 2019, but remained negative
- Actual +0.4ppt upward adjustment for LLP in October ~ December 2019 quarter
- Forecast +0.3ppt upward adjustment for LLP in January ~ March 2020 quarter
- No change for LLP vs. original forecast for subsequent quarters

- Generics (GE) growth lower than expected in 2019 due to better than expected LLP growth
- Actual -0.6ppt downward adjustment for GE in October ~ December 2019 quarter
- Forecast -0.3ppt downward adjustment for GE in each quarter for January ~ December 2020
- Forecast -0.2 ~ -0.4ppt (on average) downward adjustment for GE vs. original forecast for subsequent quarters January 2021 ~ March 2025

Summary of Impact of COVID-19

- While the impact of the October 2019 consumption tax increase (from 8% to 10%) on GDP, the stock market, business confidence, consumer spending, and other economic indicators has been higher than expected, the impact on pharmaceutical spend is lower than expected

- This impact on the above economic indicators will be increasingly felt with additional impact as a result of COVID-19 - which will also have an increasing impact on pharmaceutical spend

- The extent of impact of COVID-19 on pharmaceutical spend will depend on the potential increase in the number of cases via community transmission, the timing of the peak in number of cases, and the end of the disease outbreak (IQVIA defines the end of a disease outbreak at the point in time when no new confirmed cases have been observed for 28 days)

- With confirmed cases of community transmission still being reported in parts of the country, although in low numbers, it is difficult to accurately predict when the COVID-19 outbreak will peak and end. The Outlook to 2024 update assumes a peak in the April ~ June 2020 quarter and an end of the outbreak in the October ~ December Quarter but no later than the January ~ March 2021 quarter

Total Market Quarterly Year-on-Year Growth
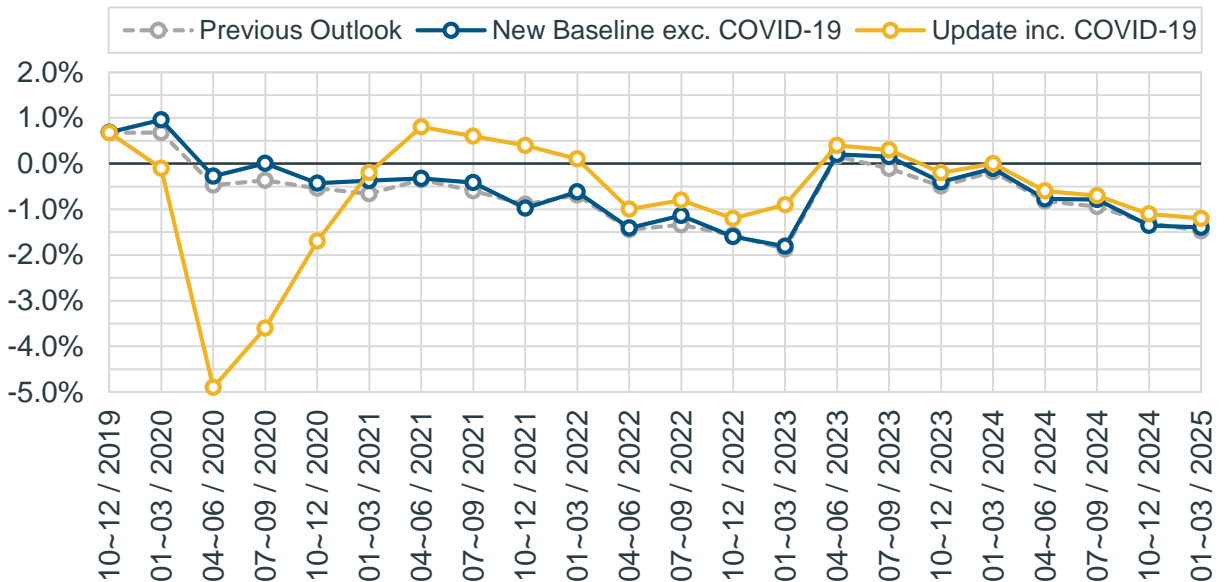
Source: IQVIA Solutions Japan. Japan Thought Leadership Team Analysis.

> **Research / Analysis Methodology**
>
> The IQVIA Japan – Japan Thought Leadership Team conducted research on the impact of COVID-19 on Japan pharmaceutical spend by utilizing IQVIA Core analytic platforms (including IMSBase weekly, medical and prescription data), benchmark and trend analysis from previous events in Japan (PATDAY analysis from high seasonal events, and hospital visit trends associated with natural disasters), COVID-19 impact trends globally / by country (including Europe, China, South Korea and Australia), review of government and other official reports / statements (including projection of number of cases and measures to contain the spread), and discussions with industry stakeholders.

Summary of Impact of COVID-19

Quarterly Comparison Update inc. COVID-19 vs. Update exc. COVID-19
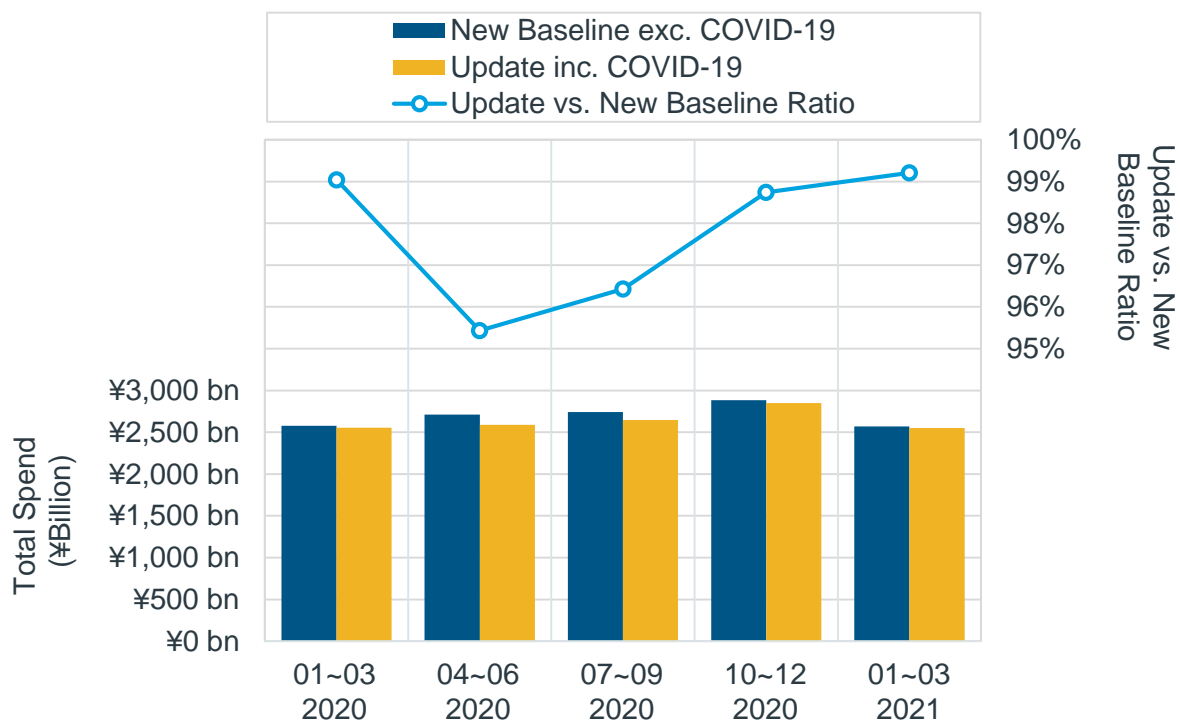
|	01~03 2020	04~06 2020	07~09 2020	10~12 2020	01~03 2021
New Baseline exc. COVID-19 (¥Billion)	2,579	2,662 ~ 2,762	2,694 ~ 2,794	2,834 ~ 2,934	2,519 ~ 2,619
Update inc. COVID-19 (¥Billion)	2,554	2,538 ~ 2,638	2,596 ~ 2,696	2,798 ~ 2,898	2,499 ~ 2,599
Update vs. New Baseline Ratio	99.0%	95.4%	96.4%	98.7%	99.2%

Source: IQVIA Solutions Japan. Japan Thought Leadership Team Analysis.
Totals may not add up consistently due to rounding differences.

Summary of Impact of COVID-19

- The absolute impact including COVID-19 in FY2020 (April 2020 ~ March 2021), compared to the new baseline excluding COVID-19, will be between -¥303 and -¥253 billion

- Forecast growth in FY2020 including COVID-19 will drop from between -0.8 to +0.2% (new baseline excluding COVID-19) to between -3.1 to -2.1%

- The April ~ June 2020 quarter will report the highest difference between forecast including COVID-19 and new baseline excluding COVID-19 of any quarter in FY2020, with the January ~ March 2021 quarter effectively back in line with the new baseline excluding COVID-19

- The main impacting factor on pharmaceutical spend will be a decline in overall patient visits / doctor consultations (non-CORVID-19 related) as patients stay away from medical institutions unless necessary, or due to access to medical institutions being restricted

- This patient visit / doctor consultation impact will vary between disease areas and / or severity of disease areas, with patients with non-urgent diseases less likely to visit medical institutions for consultations / prescriptions

- Therapy areas expected to be least impacted include antiviral agents (ATC J classes), respiratory agents (ATC R classes – including asthma, COPD, and allergies), CNS (ATC N classes) and therapies for severe / more life-threatening diseases including oncologics and for auto-immune diseases, amongst others

- In terms of chronic diseases and lifestyle related diseases (including geriatric related CNS disorders, hypertension, diabetes and others), late February ~ early March prescription data shows increased average length (days) of prescriptions – meaning there will be less frequent patient visits for prescription renewal in the short term

- On a full year basis 2020 there will be minimal positive or negative impact on pharmaceutical spend as a result of these extended scripts, however there will be impact month-to-month and quarter-to-quarter based on newly present prescribing / dispensing cycles

- This increased average length of prescriptions is expected to continue through 2020 and potentially into 2021 and it will be interesting to monitor if this trend becomes "the new norm" beyond the impact of COVID-19

Outlook to 2024 – Calendar Year

Total Spend
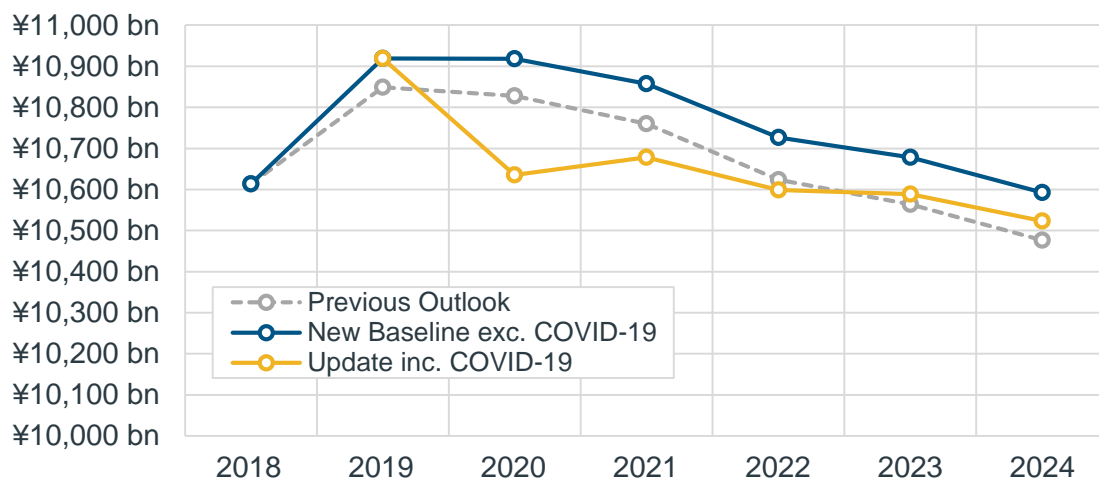
	2018	2019	2020	2021	2022	2023	2024
Previous Outlook (¥Billion)	10,614	10,849	10,728 ~ 10,928	10,660 ~ 10,860	10,523 ~ 10,723	10,464 ~ 10,664	10,376 ~ 10,576
New Baseline exc. COVID-19 (¥Billion)	10,614	10,919	10,818 ~ 11,018	10,758 ~ 10,958	10,626 ~ 10,826	10,578 ~ 10,778	10,493 ~ 10,693
Update inc. COVID-19 (¥Billion)	10,614	10,919	10,535 ~ 10,735	10,578 ~ 10,778	10,499 ~ 10,699	10,489 ~ 10,689	10,424 ~ 10,624

Year-on-Year Growth
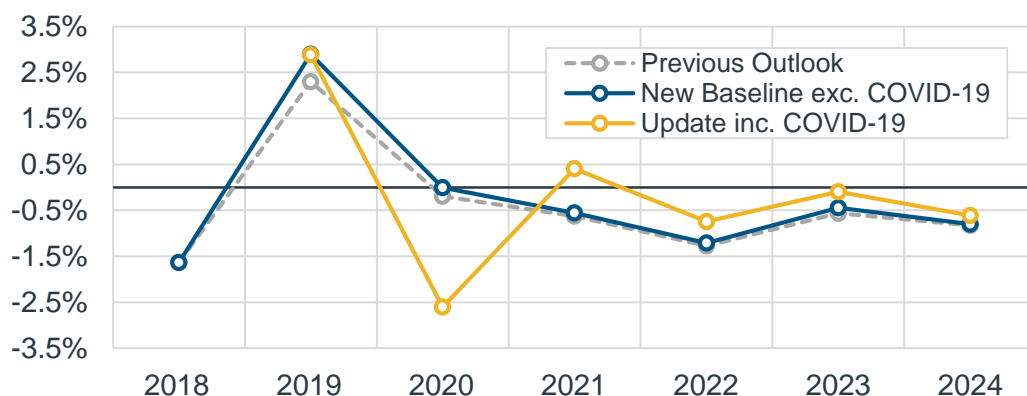
|	2018	2019	2020	2021	2022	2023	2024
Previous Outlook Growth	-1.6%	+2.3%	-0.7 ~ +0.3%	-1.1 ~ -0.1%	-1.8 ~ -0.8%	-1.1 ~ -0.1%	-1.3 ~ -0.3%
New Baseline exc. COVID-19 Growth	-1.6%	+2.9%	-0.5 ~ +0.5%	-1.1 ~ -0.1%	-1.7 ~ -0.7%	-0.9 ~ +0.1%	-1.3 ~ -0.3%
Update inc. COVID-19 Growth	-1.6%	+2.9%	-3.1 ~ -2.1%	-0.1 ~ +0.9%	-1.2 ~ -0.2%	-0.6 ~ +0.4%	-1.1 ~ -0.1%

Source: IQVIA Solutions Japan. Japan Thought Leadership Team Analysis.
Totals may not add up consistently due to rounding differences.

Outlook to 2024 – Fiscal Year

Total Spend
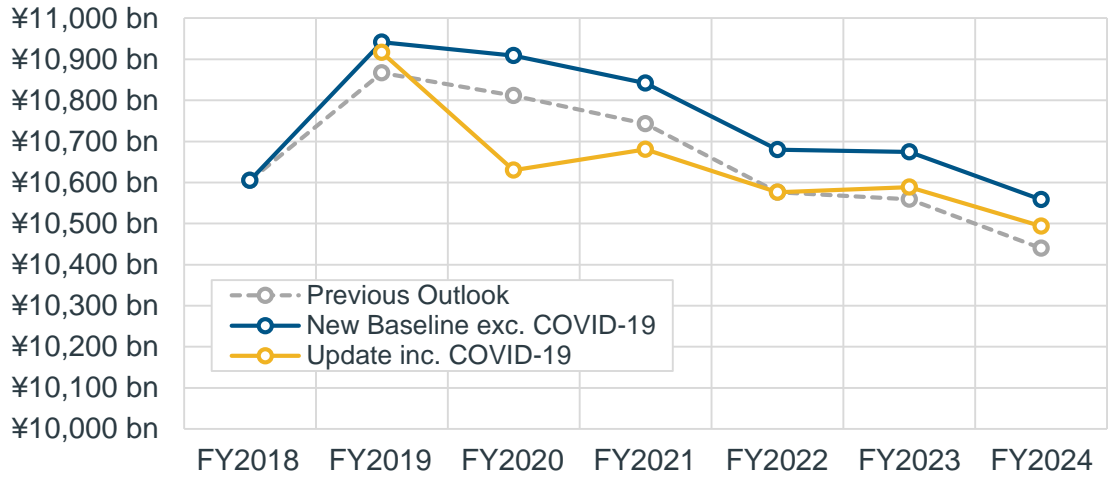
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Previous Outlook (¥Billion)	10,605	10,866	10,711 ~ 10,911	10,643 ~ 10,843	10,476 ~ 10,676	10,459 ~ 10,659	10,330 ~ 10,530
New Baseline exc. COVID-19 (¥Billion)	10,605	10,941	10,809 ~ 11,009	10,742 ~ 10,942	10,580 ~ 10,780	10,574 ~ 10,774	10,458 ~ 10,658
Update inc. COVID-19 (¥Billion)	10,605	10,917	10,530 ~ 10,730	10,581 ~ 10,781	10,476 ~ 10,676	10,489 ~ 10,689	10,393 ~ 10,593

Year-on-Year Growth
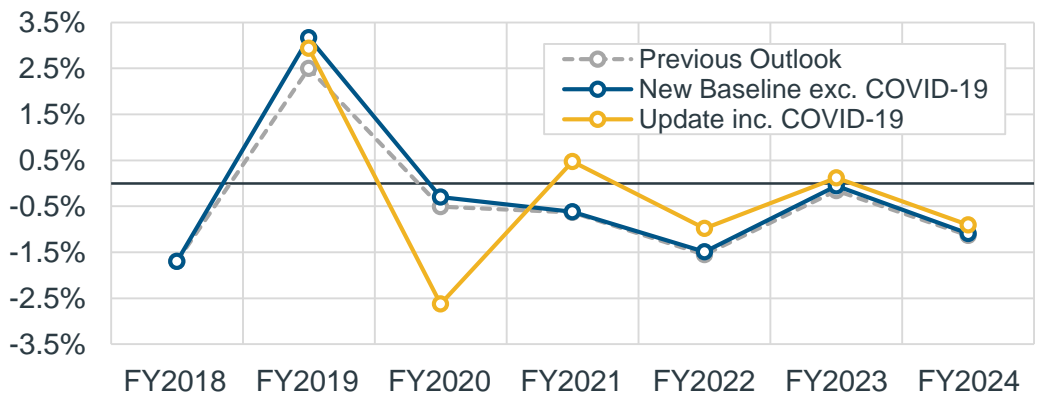
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Previous Outlook Growth	-1.7%	+2.5%	-1.0 ~ 0.0%	-1.1 ~ -0.1%	-2.1 ~ -1.1%	-0.7 ~ +0.3%	-1.6 ~ -0.6%
New Baseline exc. COVID-19 Growth	-1.7%	+3.2%	-0.8 ~ +0.2%	-1.1 ~ -0.1%	-2.0 ~ -1.0%	-0.6 ~ +0.4%	-1.6 ~ -0.6%
Update inc. COVID-19 Growth	-1.7%	+2.9%	-3.1 ~ -2.1%	+0.0 ~ +1.0%	-1.5 ~ -0.5%	-0.4 ~ +0.6%	-1.4 ~ -0.4%

Source: IQVIA Solutions Japan. Japan Thought Leadership Team Analysis.
Totals may not add up consistently due to rounding differences.

Data Disclosure and Distribution

This report is for IQVIA Solutions Japan client internal use only.

Questions should be directed to IQVIA Solutions Japan Thought Leadership at:
JP.ThoughtLeadership@iqvia.com

About IQVIA

IQVIA (NYSE:IQV) is a leading global provider of information, innovative technology solutions and contract research services focused on using data and science to help healthcare clients find better solutions for their patients. Formed through the merger of IMS Health and Quintiles, IQVIA offers a broad range of solutions that harness advances in healthcare information, technology, analytics and human ingenuity to drive healthcare forward. IQVIA enables companies to rethink approaches to clinical development and commercialization, innovate with confidence as well as accelerate meaningful healthcare outcomes. IQVIA has approximately 55,000 employees in more than 100 countries, all committed to making the potential of human data science a reality. IQVIA's approach to human data science is powered by the IQVIA CORE™, driving unique actionable insights at the intersection of big data, advanced technology and analytics with extensive industry knowledge.

IQVIA is a global leader in protecting individual patient privacy. The company uses a wide variety of privacy-enhancing technologies and safeguards to protect individual privacy while generating and analyzing the information that helps their customers drive human health outcomes forward. IQVIA's insights and execution capabilities help biotech, medical device, and pharmaceutical companies, medical researchers, government agencies, payers and other healthcare stakeholders tap into a deeper understanding of diseases, human behaviors and scientific advances, in an effort to advance their path toward cures.

To learn more, visit www.IQVIA.com.