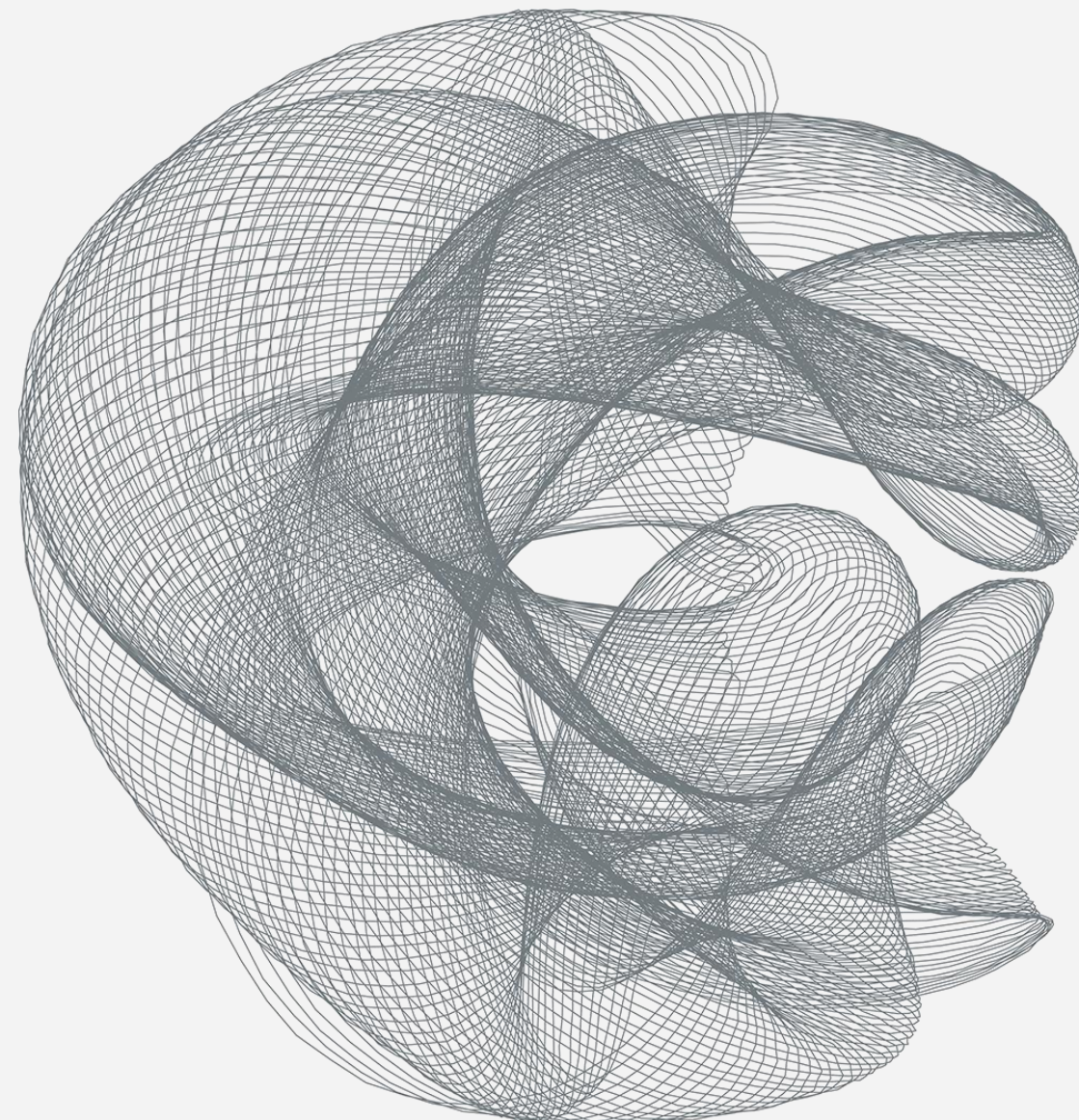


The Global Use of Medicines 2022

OUTLOOK TO 2026

AIFA
29 July, 2022

Murray Aitken, Executive Director

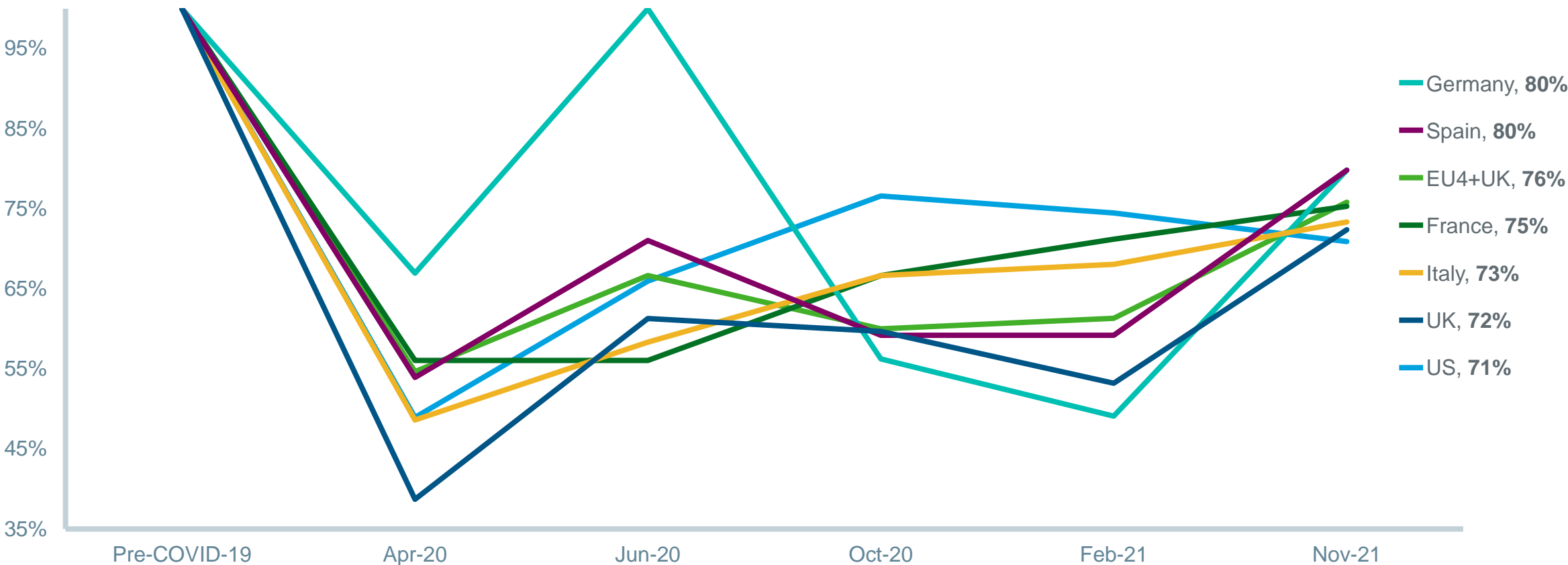


Impact of COVID-19 on the use of medicines

- Healthcare utilization and medicine use continues to be disrupted by the pandemic
- Our modeling indicates about \$175 billion reduction in the global cumulative medicine market by 2026 compared to pre-pandemic estimates
- The COVID-19 vaccines market is modeled to be about \$250 billion cumulative through 2026, though price and volume estimates vary
- The COVID-19-related therapeutics market is estimated to be about \$58 billion cumulative through 2026
- More uncertainty than usual exists about impact on medicines markets of delayed diagnoses, new variants, mental health disorders,, treatment of post-COVID conditions

Oncologists are reporting their caseload is still 20-29% below pre-COVID-19 levels despite significant recovery in 2021

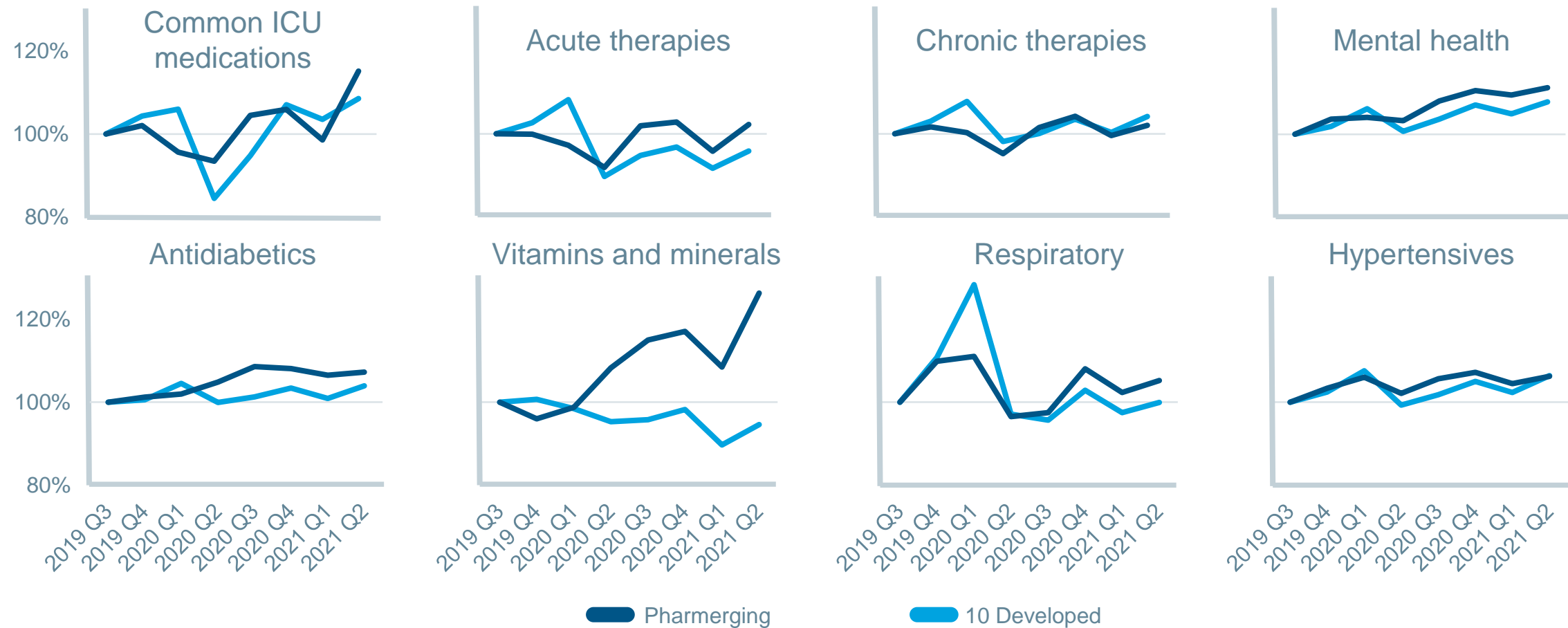
Percentage caseload vs pre-COVID-19 phase



Source: IQVIA Impact of COVID-19 on the Treatment of Cancer Reports - Nov 2021 – U.S. and EU4+UK. Global Oncology Trends 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science

Medicine use was disrupted in some therapies in 2020, with varied timing and impact across countries

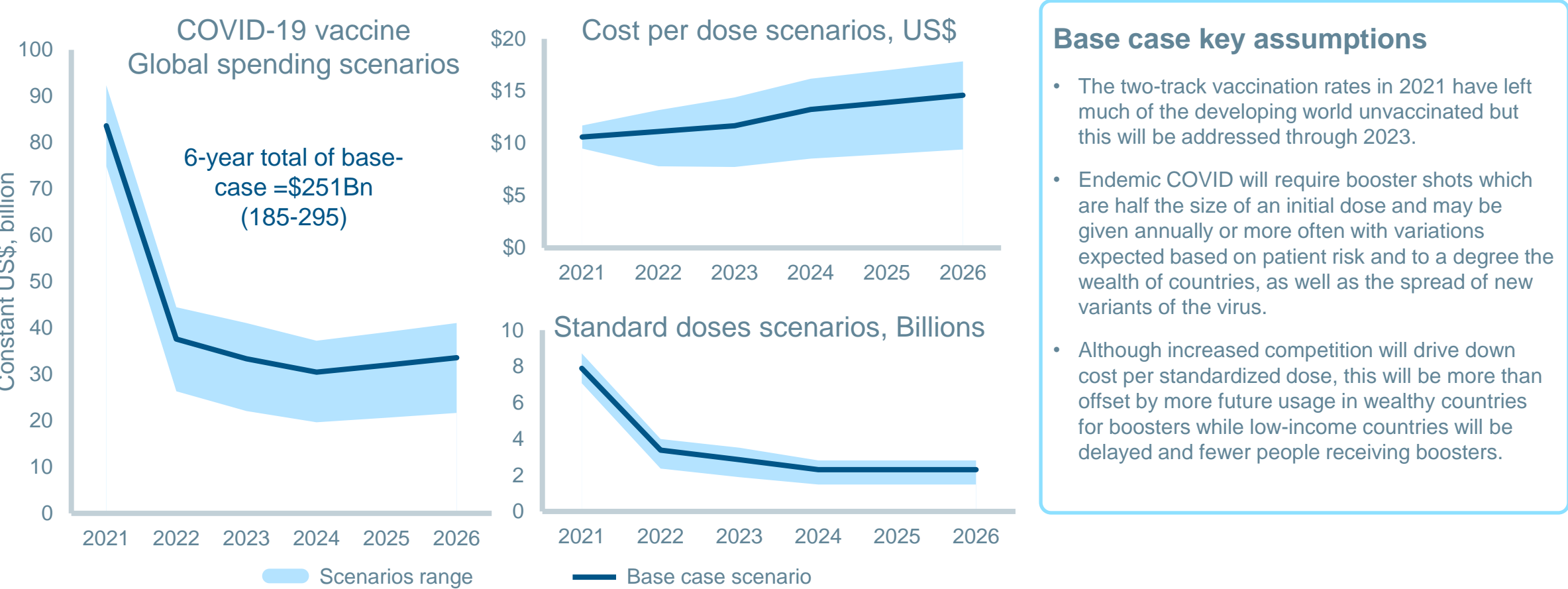
Trends in medicine use in 10 developed and pharmerging markets, Standard Units indexed to Q3 2019 values



Source: IQVIA MIDAS, Sep 2021; IQVIA Institute, Nov 2021
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Global spending on COVID-19 vaccines is modeled to be \$251Bn through 2026, though cost and volume estimates vary

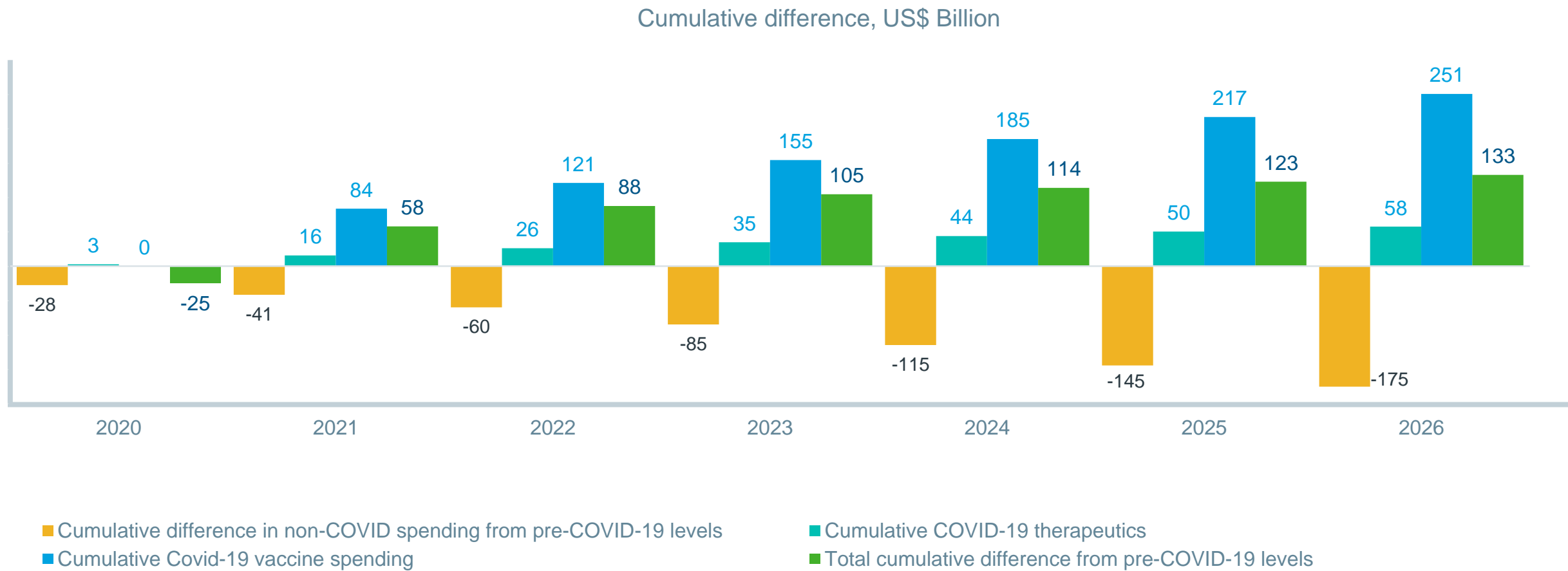
COVID-19 Vaccine Scenarios



Source: IQVIA Institute, Mar 2021; Pricing information from public disclosures as of Mar 25, 2021; Vaccination trends to date from Ourworldindata.org
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Global spending, including COVID-19 vaccines and therapeutics, to exceed pre-pandemic outlook by \$133Bn to 2026

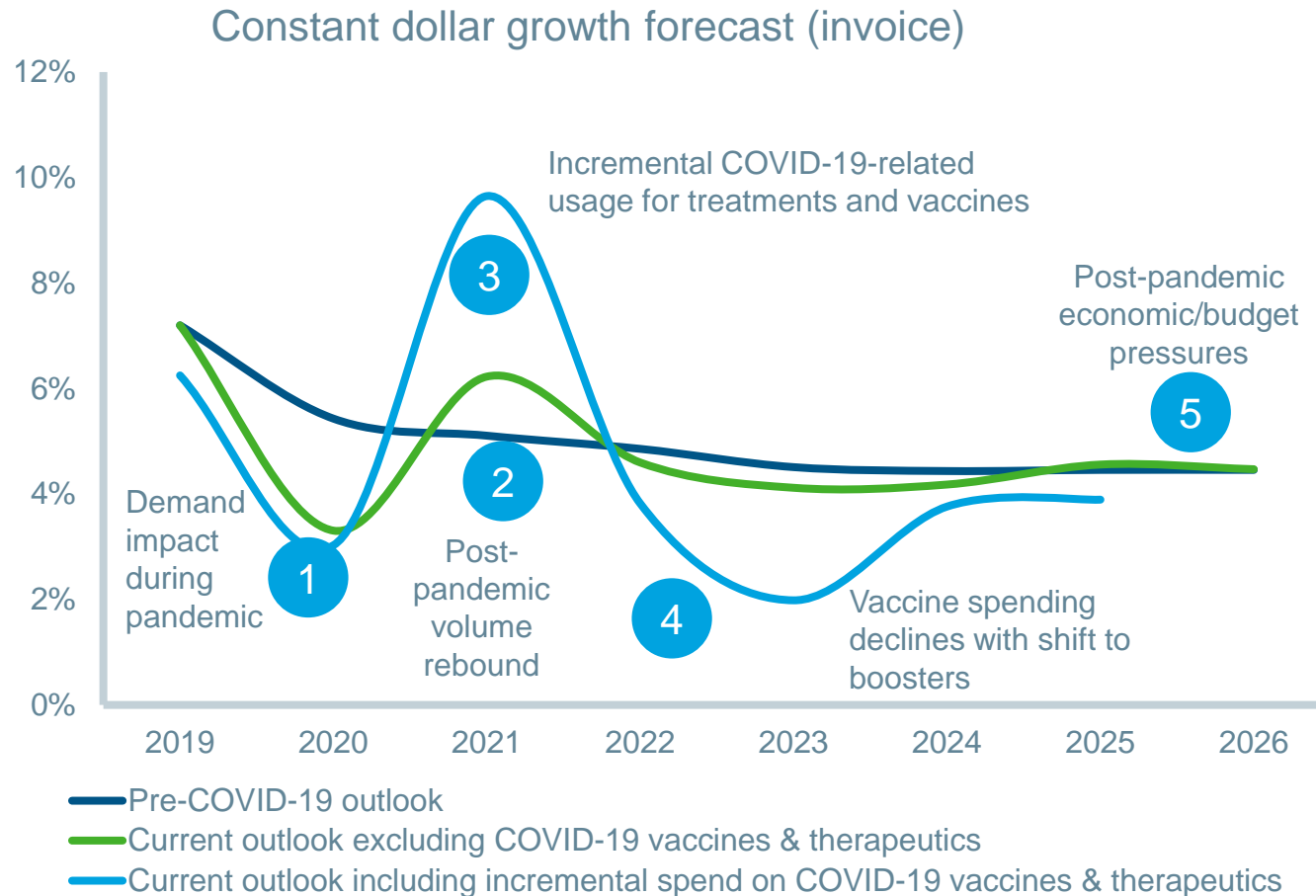
Changes in the historical and projected global medicine pending model due to COVID-19, 2020–2026, US\$Bn



Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
The Global Use of Medicines 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science.

Global market growth will return to pre-pandemic projections by 2025 despite year-to-year fluctuations

Comparison of current outlook to pre-COVID outlook



Key events in the outlook

- 1 2020: -2.1% (~\$27Bn)
- 2 2021: +1.1% above pre-Covid-19 growth; +2.9% above 2020 growth excluding vaccine and therapeutics
- 3 2021: +8% higher growth including vaccines and therapeutics compared to spending without them
- 4 2022: Significant decline in required spending for COVID-19 vaccines as much of the world is inoculated to some degree
- 5 Expected budget pressures will emerge from longer-term pressures of sustained pandemic

Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
The Global Use of Medicines 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science.

Increased uncertainty about demand and use of medicines linked to pandemic impact

Summary of expected impacts of the COVID-19 pandemic on patients and therapeutics

Disrupted or delayed diagnoses of conditions

- Interruption of typical healthcare seeking behaviors due to quarantines / shutdowns could have lasting effects or result in more severe disease when diagnosed, especially cancer

Post-COVID-19 conditions

- Lack of clear understanding of causes and consequences of “long-COVID” conditions
- Estimated over 100 million newly diagnosed conditions in COVID-19 patients, particularly in CNS and respiratory
- Treatment modalities still in investigation

Impact on infectious diseases

- Vaccine hesitancy spreads to others and results in outbreaks of previously controlled viruses such as measles, mumps, rubella
- Seasonal flu season disruption could result in more virulent strains in future seasons, especially if vaccination rates drop

Population level mental health

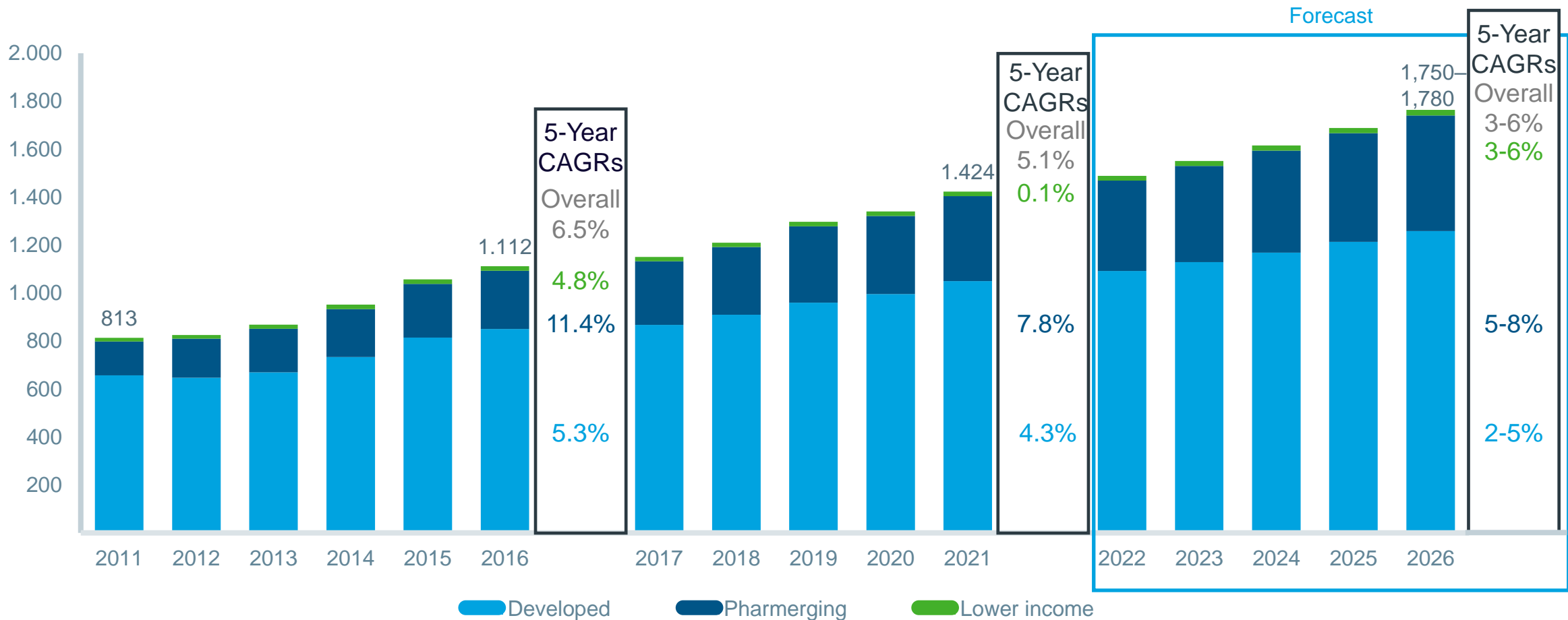
- Depression/anxiety, stress disorders
- Substance abuse / dependency

Global Market Outlook to 2026

- Total market grows from \$1.4 trillion to almost \$1.8 trillion in 2026, as growth rate slows to 3-6% CAGR, compared to 5.1% over past 5 years and 6.5% over prior 5 years
- Specialty drugs account for most of the growth, reaching 45% of total market by 2026, up from 31% in 2016, and almost 60% of total market in the 10 major developed countries
- Oncology, immunology and diabetes growth to slow over the next 5 years while innovation lifts neurology market growth
- Next generation biotherapeutics may fuel explosive growth over the next five years but significant scientific and commercial uncertainty remain
- Geographic focus continues strongly on the U.S. market, as EU markets reflect more restrictive access and reimbursement for innovative drugs, Japan market declines, and China registers heightened interest as a market and source of innovation

The global medicine market — using invoice price levels — is expected to grow at 3–6% CAGR through 2026 to about \$1.8Tn

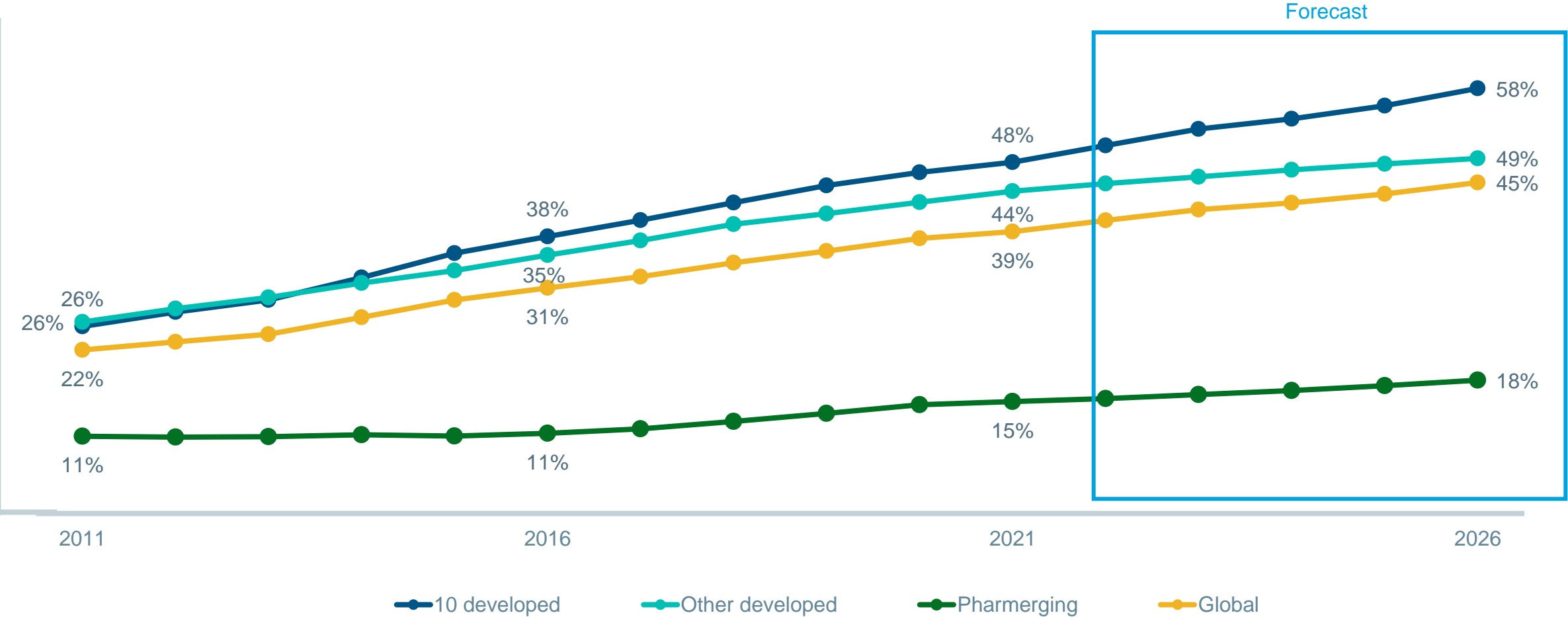
Global medicine market size and growth 2011–2026, const US\$Bn



Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
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Specialty medicines will represent about 45% of global spending in 2026 and almost 60% of total spending in developed markets

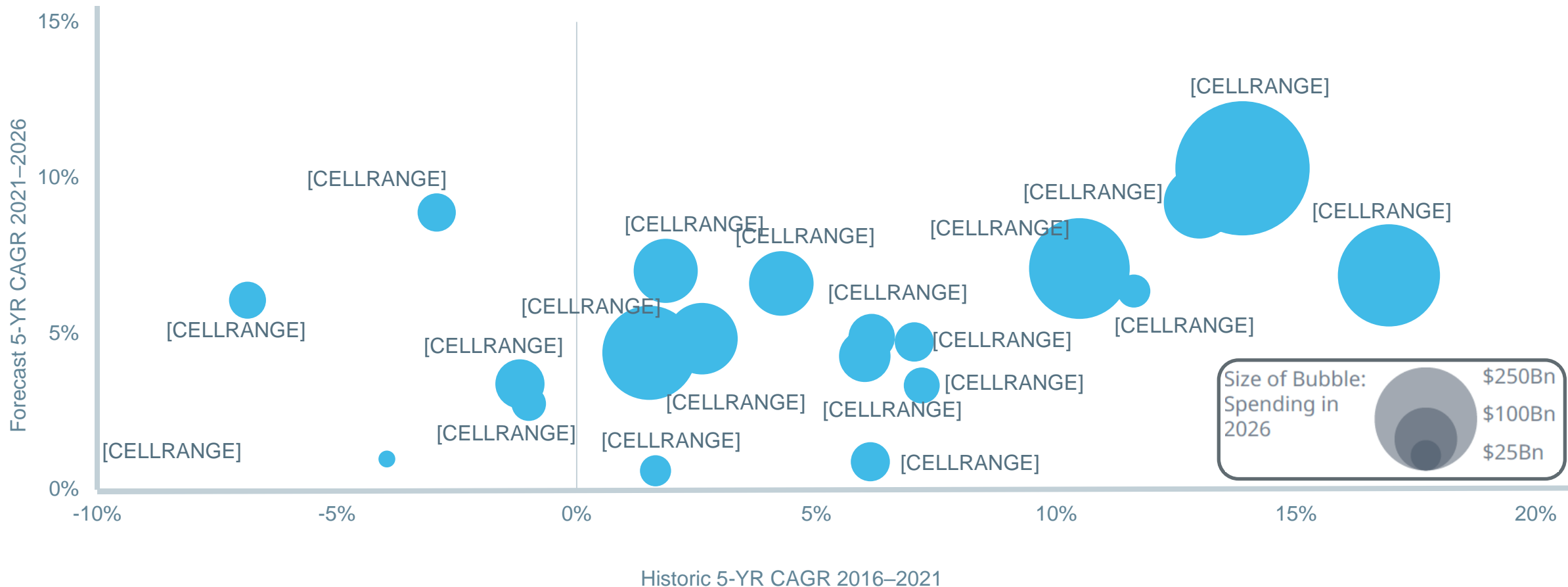
Specialty medicines share of spending



Source: IQVIA Institute, Nov 2021
The Global Use of Medicines 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science

Oncology, immunology and diabetes growth to slow over the next 5 years while innovation lifts neurology

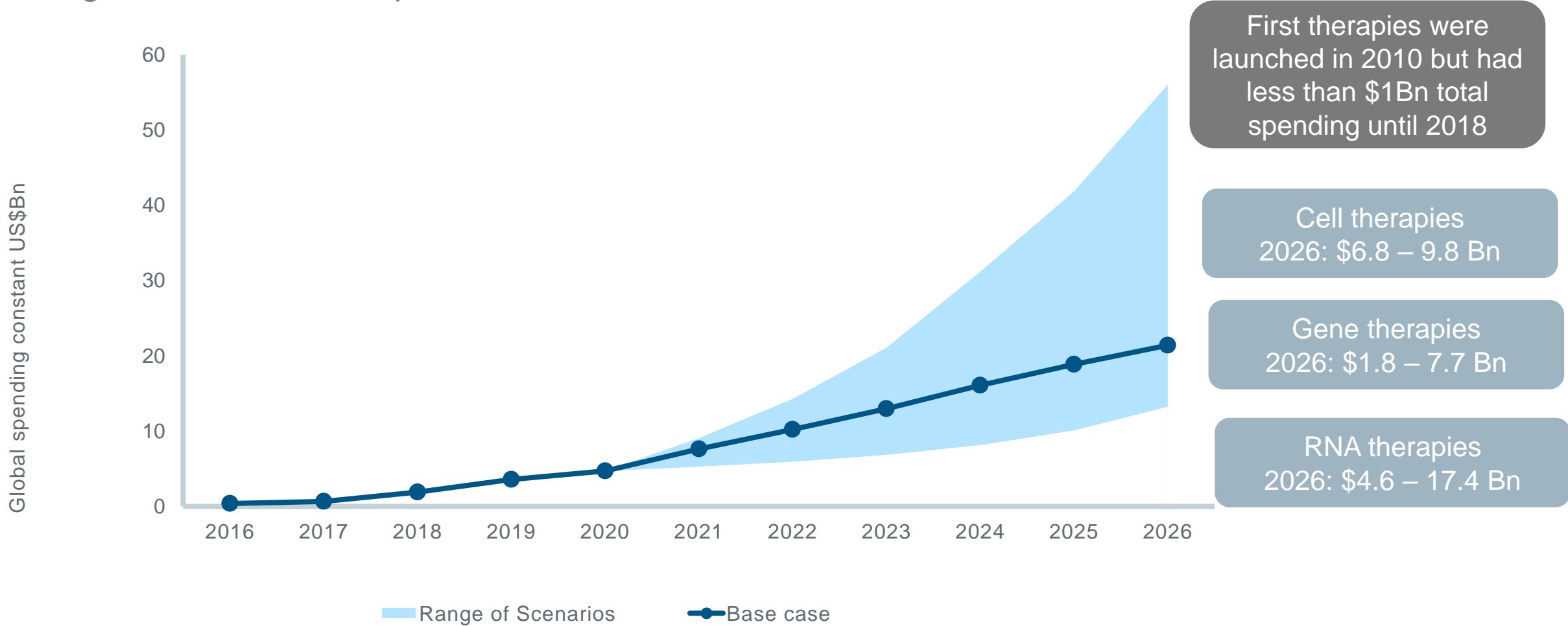
Global historic and forecast growth for top 20 therapy areas



Source: IQVIA Institute, Nov 2021
The Global Use of Medicines 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science

The outlook for next-generation biotherapeutics includes significantly uncertain clinical and commercial successes

Cell, gene and RNA therapeutics



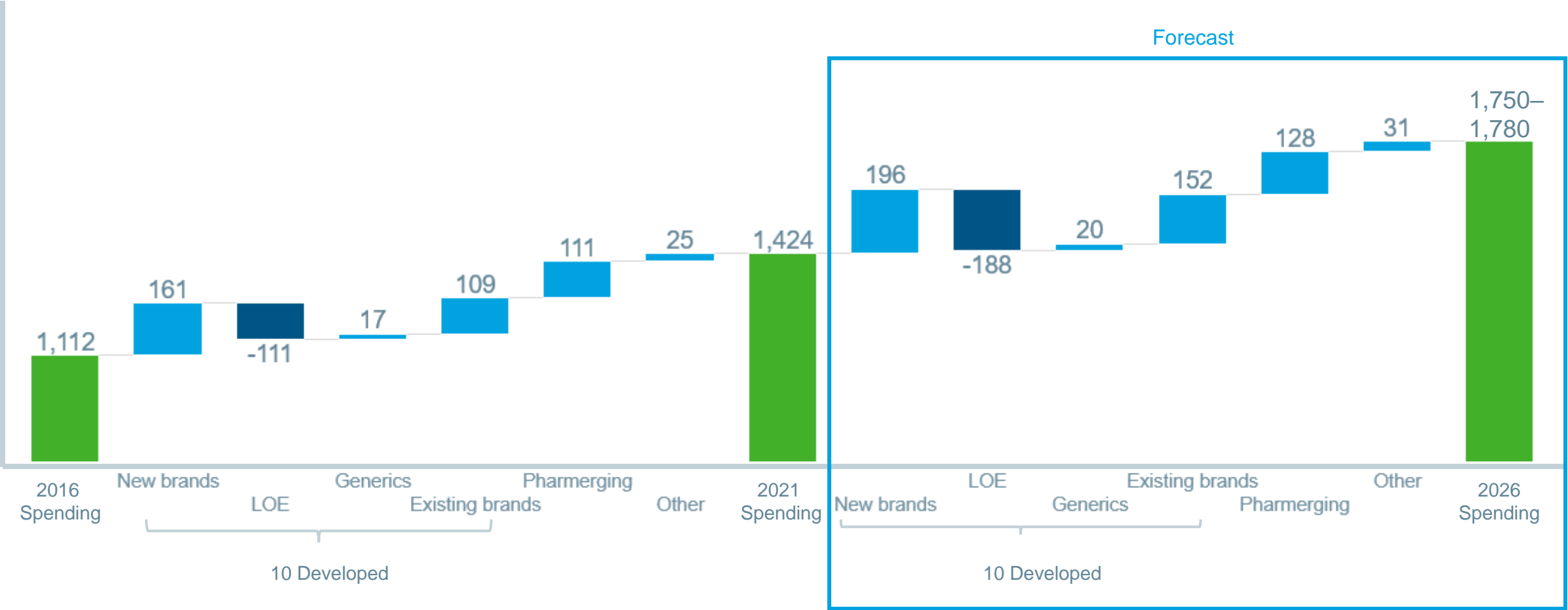
Source: Company Financials; IQVIA Institute Nov 2021
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Key dynamics in developed health systems

- Surge of biomedical innovation activity over past two years will sustain greater flow of new therapeutics and vaccines
- Expansion of access to innovative medicines will drive incremental growth as issues of equity and efforts to reduce disparities in outcomes intensify
- Losses of exclusivity create the potential for significant savings in both small molecules and biologics where competitive market conditions exist

Strong growth in pharmerging markets and new brands in developed markets will lift global spending through 2026

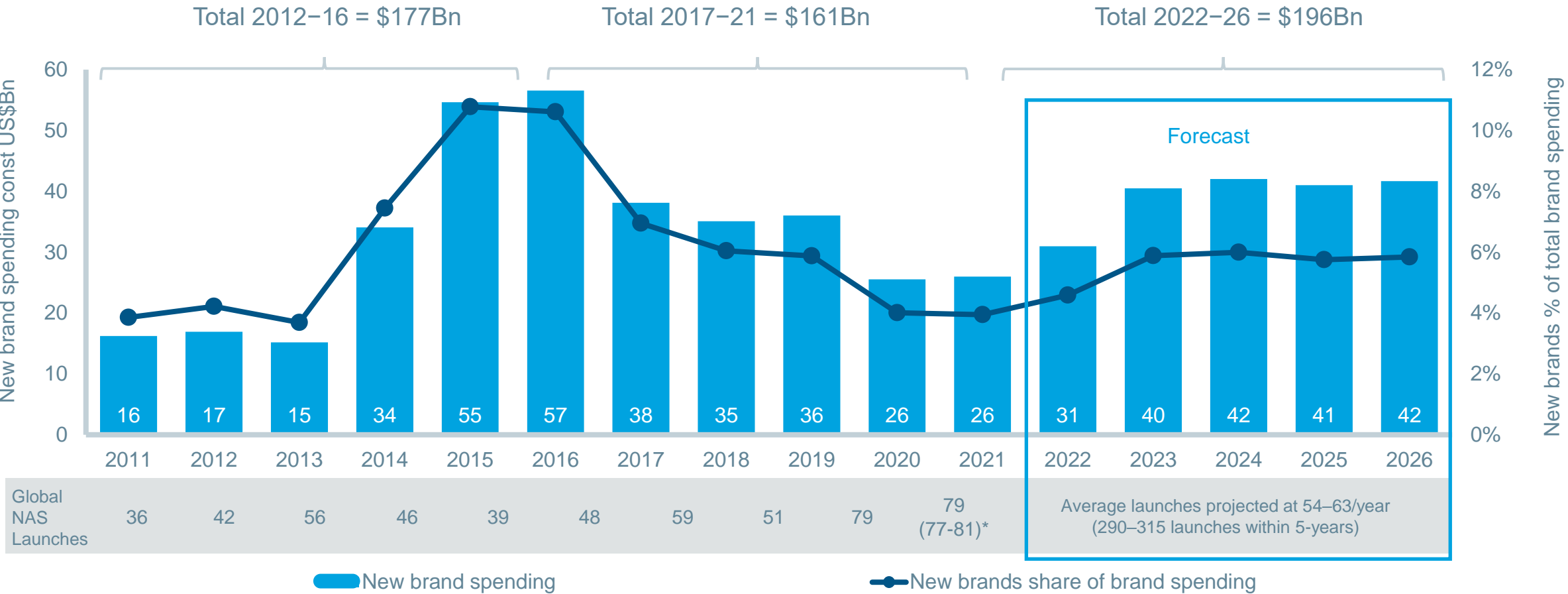
Spending and growth drivers 2016–2026 const US\$Bn



Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
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New brand spending in developed markets projected to be similar to the last 5 years but a smaller share of spending

Ten developed countries new brand spending



Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
The Global Use of Medicines 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science

The Surge of Biomedical Innovation Activity: 2019-21

U.S. Venture Funding in Life Sciences

+105%

\$22.9 -> \$47.0 Bn



Planned Clinical Trial Starts

+885

4,693 -> 5,578



Total Pipeline

+17%

5,221 -> 6,085



Next Generation Biotherapies in Pipeline

+33%

605 -> 804



Total Subjects (excl COVID-19 or Ebola trials)

+28%

757 -> 966k



Novel Active Substances Launched

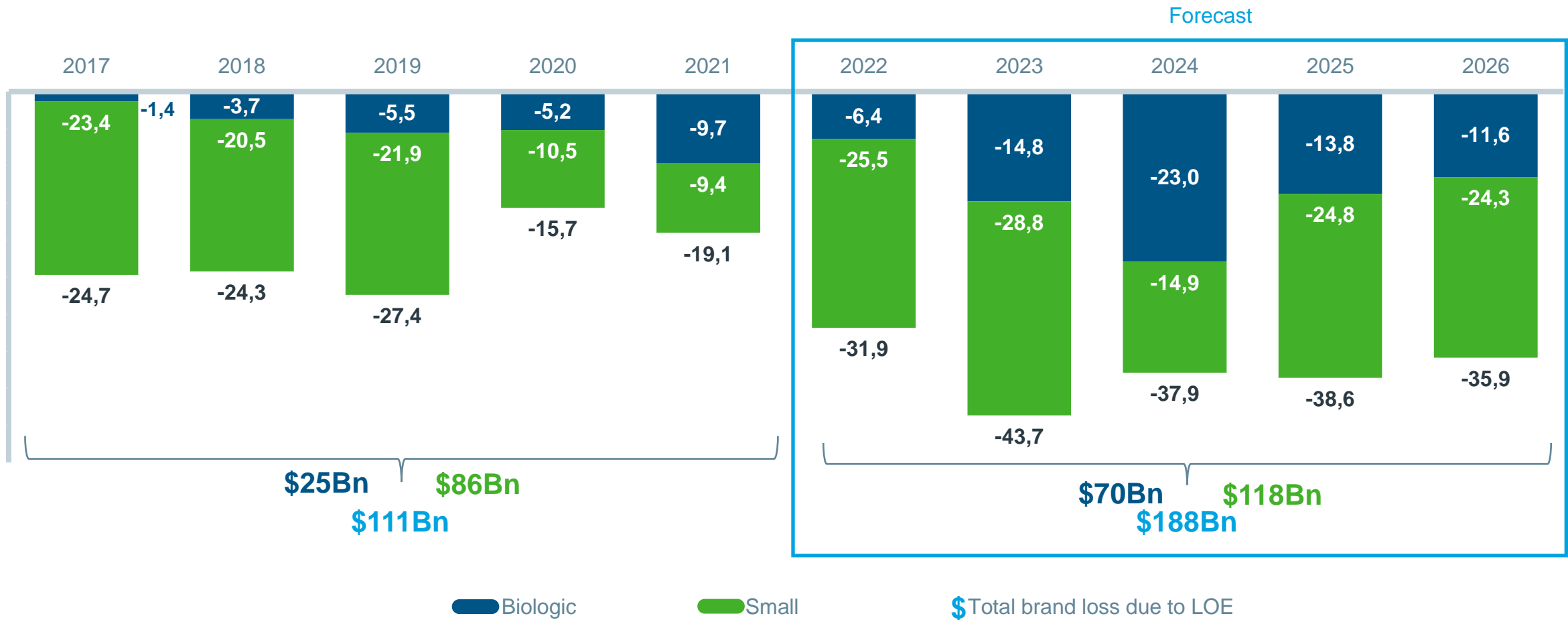
+26

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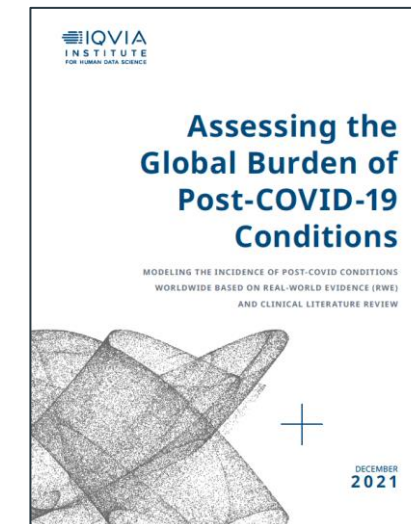
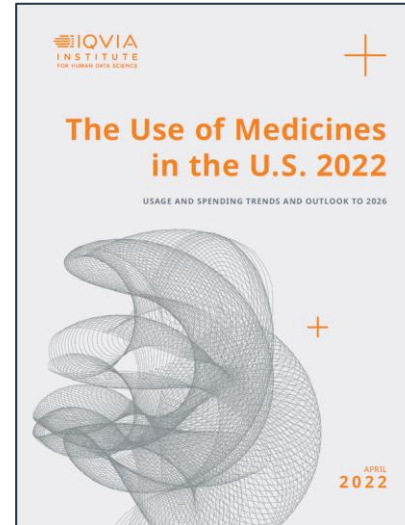
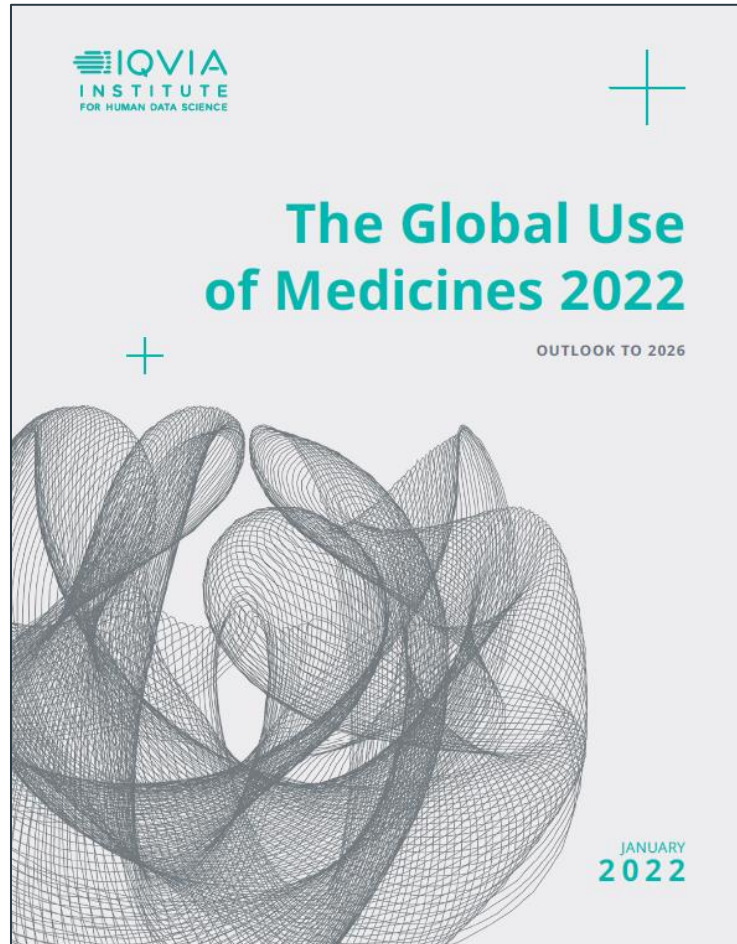
The impact of exclusivity losses will increase to \$188Bn over the next 5 with a large increase in the impact of biosimilars

Developed markets impact of brand losses of exclusivity 2017–2026, US\$Bn



Source: IQVIA Market Prognosis, Sep 2021; IQVIA Institute, Nov 2021
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