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United States

Healthcare Report

Includes 10-year forecasts to 2033

April 2024

Contents

Key View

Healthcare System

Health Expenditure

Healthcare Resources And Activity

Digital Health

Disease Burden And Demographics

Data Tables

Methodology And Glossary

1

Key View

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Key View

1 Healthcare System

The US healthcare system is **a mixed system** where publicly financed government coverage (Medicare, Medicaid) coexists with privately financed coverage. Healthcare delivery is **largely through private sector facilities**. The federal government provides funding to assist those who cannot afford health insurance, but **coverage is not universal**, with almost 10% of the population still lacking access to healthcare.

2 Health Expenditure

The US has the **world's highest level of health expenditure** in terms of total spend and as a percentage of GDP. Public spending accounts for 53% of total spending. Private health expenditure, which is rising at a faster rate, is funded through employer-sponsored health insurance, private insurance and out-of-pocket payments. Contributory factors to high spending in the US include the prevalence of chronic diseases and the intensity of treatment received.

3 Healthcare Resources And Activity

Over three quarters of US hospitals are in the private sector and this number is increasing as the total number of hospital beds heads towards the 1mn mark. Inpatient admissions and the average length of stay are falling gradually, although the number of **surgical procedures continues to rise.** Healthcare personnel numbers are increasing slowly, although facilities are facing staff shortages.

Key View

4 Digital Health

While former-President Obama's introduction of **pivotal legislation** in 2009 is credited with kickstarting the uptake of digital health in the US, it is the Covid-19 pandemic which has expedited its progress, as patients and providers were forced to interact remotely. The Health Information and Technology for Economic and Clinical Health Act (HITECH) of 2009 incentivised the use of health information technology and has seen the widespread **adoption of electronic health records**, revolutionising the way healthcare facilities work with data.

5 Disease Burden And Demographics

The US has an **ageing population**, with over one fifth expected to be aged over 65 by 2032. The country has a **growing incidence of non-communicable and chronic diseases**, such as dementia, heart disease, diabetes and certain types of cancer. The major causes of death are circulatory diseases, cancer, accidents and respiratory diseases, with Covid-19 among the top five causes over the 2020-2022 period.

2

Healthcare System

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Key Healthcare System Indicators

World's Most Expensive Healthcare System

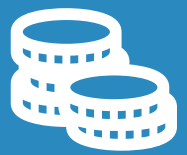
United States – Key Healthcare System Indicators

USD4,795bn health expenditure with CAGR of 4.3%

6,227 hospitals and 930,739 hospital beds

901,448 physicians and 4,051,633 nurses

Health expenditure accounts for 17.5% of GDP



Health expenditure is 53% public and 47% private

The largest healthcare market in North America

Source: BMI

Healthcare System Institutions And Stakeholders

Mixed Public/Private Insurance-Based Healthcare System

US – Key Institutions & Stakeholders In Healthcare System

Government Healthcare Organisations

Department of Health and Human Services (HHS): The federal state department with responsibility for administering, funding and providing healthcare services.

Centers for Medicare & Medicaid Services (CMS): Part of the HHS, the CMS administers the Medicare programme and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program and health insurance portability standards.

National Institutes of Health (NIH): The NIH is the US medical research agency comprising 27 different institutes and centres.

Food and Drug Administration (FDA): The FDA's responsibilities include ensuring the safety, efficacy and security of human and veterinary drugs, biological products and medical devices.

Professional And Commercial Associations

Pharmaceutical Research and Manufacturers of America (PhRMA): The PhRMA represents the leading biopharmaceutical research companies and manufacturers in the US.

Advanced Medical Technology Association (AdvaMed): AdvaMed is a medical technology association representing medical device, diagnostics and digital technology manufacturers.

American Hospital Association (AHA): The national organisation that represents and serves all types of hospitals, healthcare networks and their patients and communities. Members include nearly 5,000 hospitals, healthcare systems, networks and other providers of care.

American Medical Association: The association represents physicians and convenes 190+ state and specialty medical societies and other critical stakeholders.

Private Healthcare Providers

Community Health Systems: A leading operator of general acute care hospitals and outpatient facilities in the US, with 71 affiliated hospitals in 15 states and around 12,000 beds.

HCA Healthcare: A leading provider of healthcare services, comprising 186 hospitals and 2,400+ sites of care in 20 US states and the UK.

Tenet Healthcare: A leading health system and services platform with 52 hospitals and approximately 640 outpatient centres and additional sites of care.

Ascension: A non-profit health system operating more than 2,600 sites of care – including 140 hospitals and more than 40 senior living facilities – in 19 states and the District of Columbia.

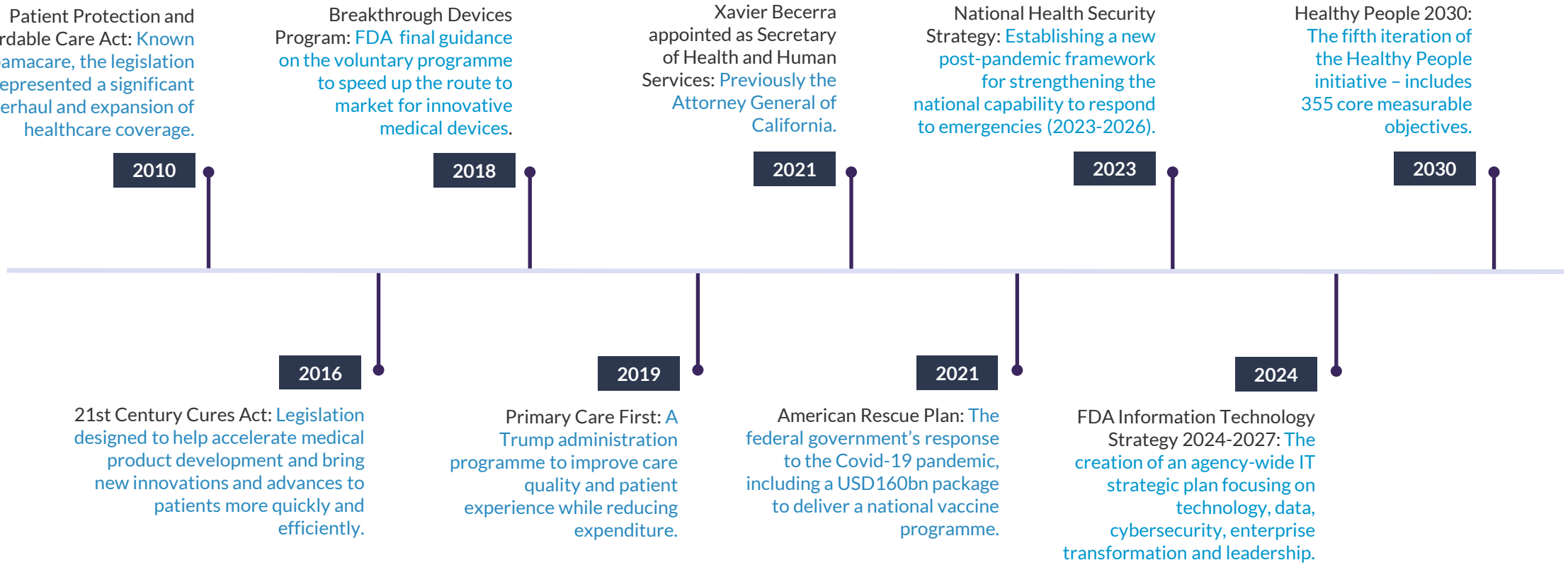
CommonSpirit Health: One of the largest non-profit health systems in the US, with a system of 140 hospitals and more than 1,000 care sites across 21 states.

Source: BMI

Healthcare Regulations And Strategic Initiatives

Expanding Access To Affordable Healthcare

US – Timeline Of Key Healthcare Regulations & Strategic Initiatives



Source: BMI

SWOT Analysis

Opportunities Linked To Caring For Ageing Population And Widening Insurance Coverage

US – Healthcare System SWOT Analysis

Strengths

World's highest level of healthcare spending as a percentage of GDP and per capita.

World's largest pharmaceutical and medical device markets, with some of the world's highest rates of installed medical technology.

Highly regulated and competitive medical device and pharmaceutical marketplaces.

Weaknesses

Fragmented, multi-payer health system resulting in inefficiency and high administrative costs.

Despite being one of the most advanced healthcare markets, a large element of the population does not have adequate coverage.

Litigious medical device market can lead to defensive medicine, with clinical actions geared more to protecting physicians than treating patients.

Opportunities

An ageing population and a high prevalence of chronic disease which will increase the demand for novel medicines and advanced medical technologies.

President Biden's commitment to shoring up the ACA and widening medical insurance coverage.

FDA Action Plan to enhance environment for medical device safety and innovation.

Threats

Additional workload and administrative costs placed on healthcare providers by the ACA.

The Inflation Reduction Act aims to limit drug price increases and Medicare expenditure.

Downward pressures on US prescription drug sales, such as patent expiration, increased regulatory scrutiny and healthcare reform.

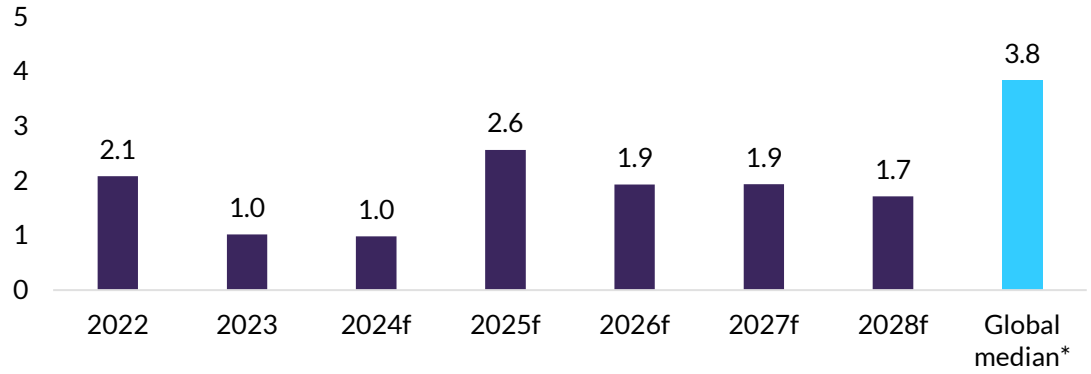
Source: BMI

Macroeconomic Environment

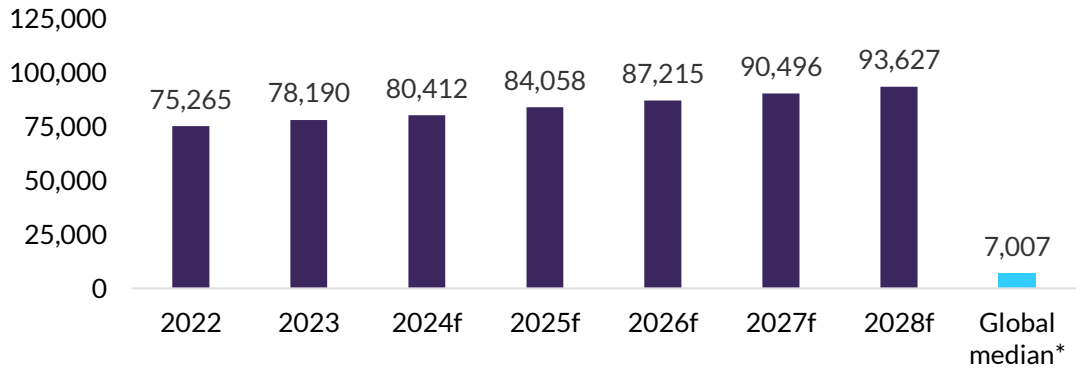
Slowdown In Real GDP Growth To 2028

US – Key Macroeconomic Indicators

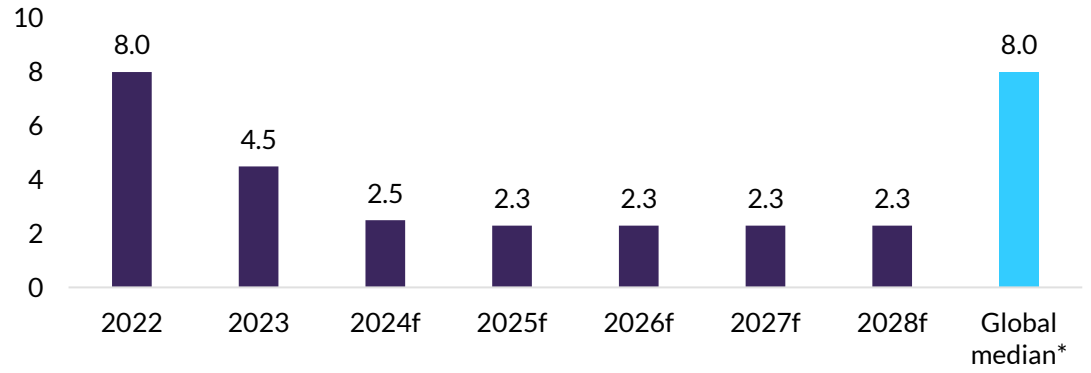
Real GDP growth, % y-o-y



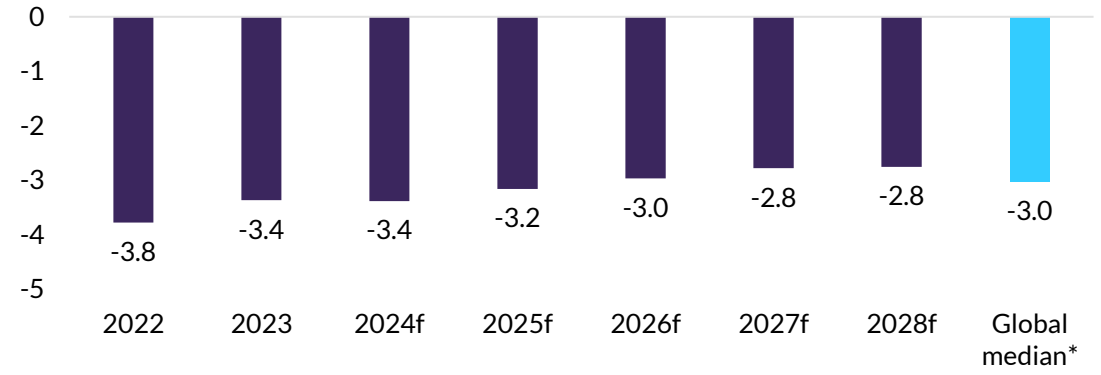
Nominal GDP per capita, USD



Consumer price index, % chg y-o-y



Current account balance, % of GDP



*Global median data for 2023. f = forecast. Source: BMI

3

Health Expenditure

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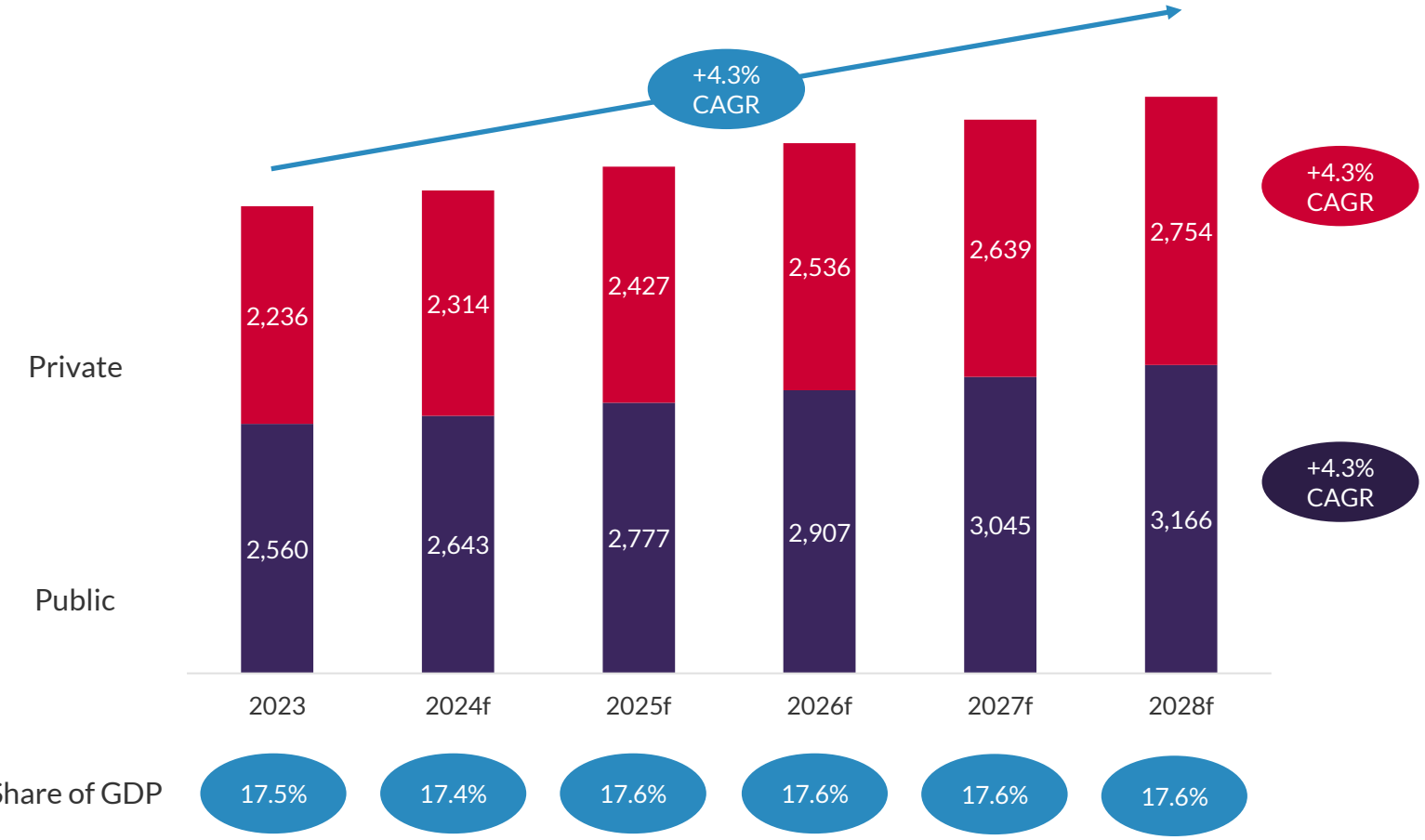
Health Expenditure Forecast

Solid Growth In Health Spending Over Next Five Years

US – Health Expenditure By Payor Types, USDbn (2023-2028)



f = forecast. Source: WHO, BMI

Key View

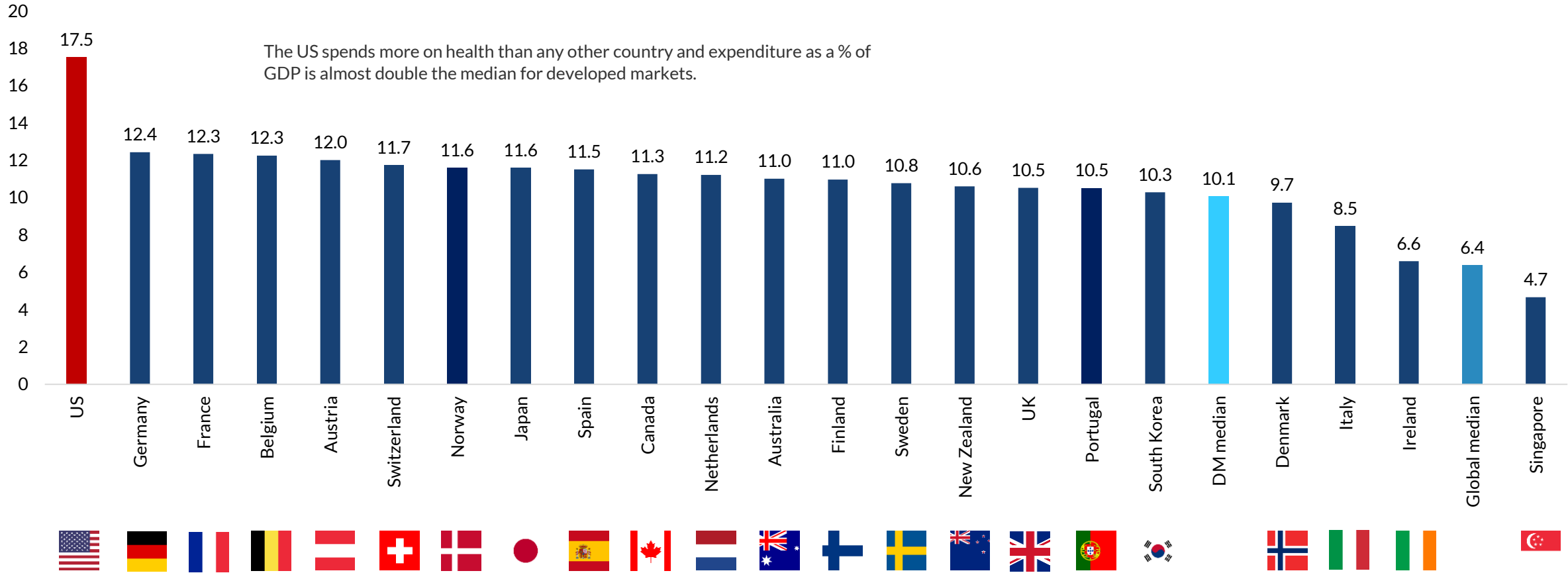
The 4.3% CAGR for health expenditure is close to average globally, indicating a mature market. Public spending accounts for more than half of the total and is forecast to grow at the same rate as private spending. Public healthcare is largely funded through the Medicare insurance programme and the Medicaid assistance programme. Public spending is forecast to increase at a 2023-2028 CAGR of 4.3% to USD3,166bn by 2028.

Private spending accounts under half of the total. It is forecast to grow at a 2023-2028 CAGR of 4.3%. By 2028, it is projected to increase to USD2,754bn.

Health Expenditure And GDP

World's Highest Health Expenditure

Select Developed Markets – Health Expenditure As A Percentage Of GDP (2023)

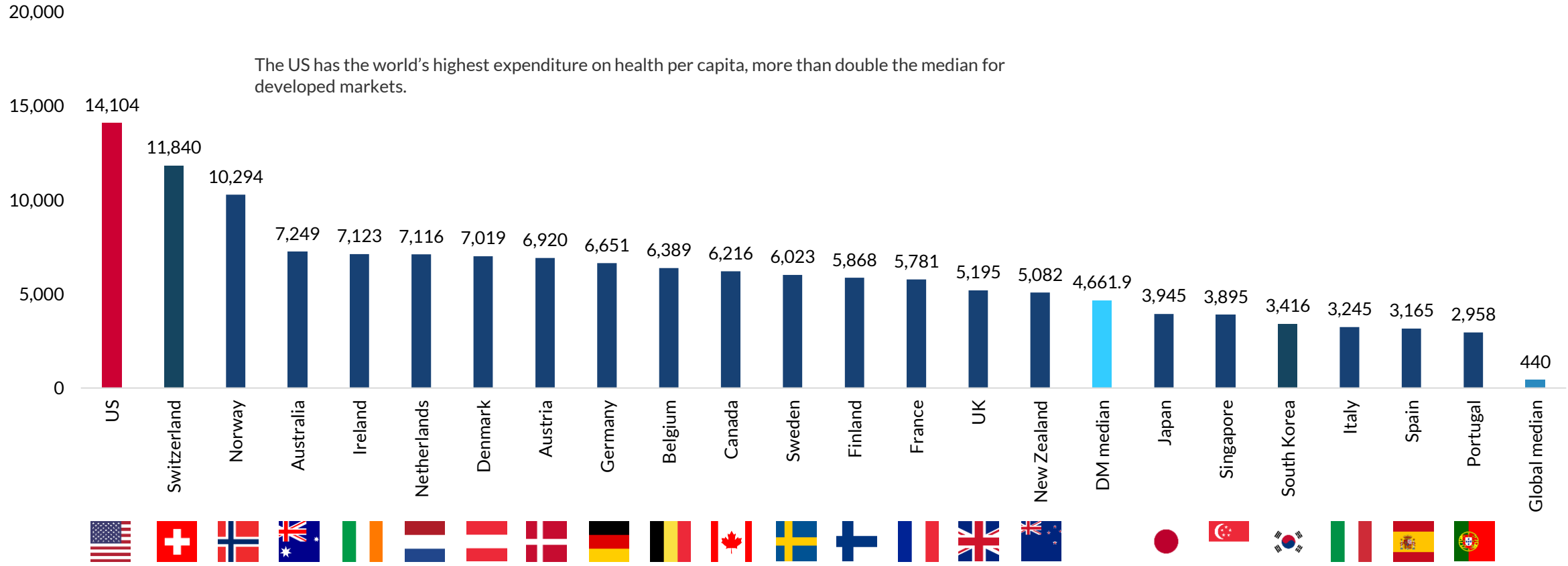


DM = developed markets. Source: WHO, BMI

Per Capita Health Expenditure

World's Highest Expenditure Per Capita

Select Developed Markets – Annual Per Capita Health Expenditure, USD (2023)

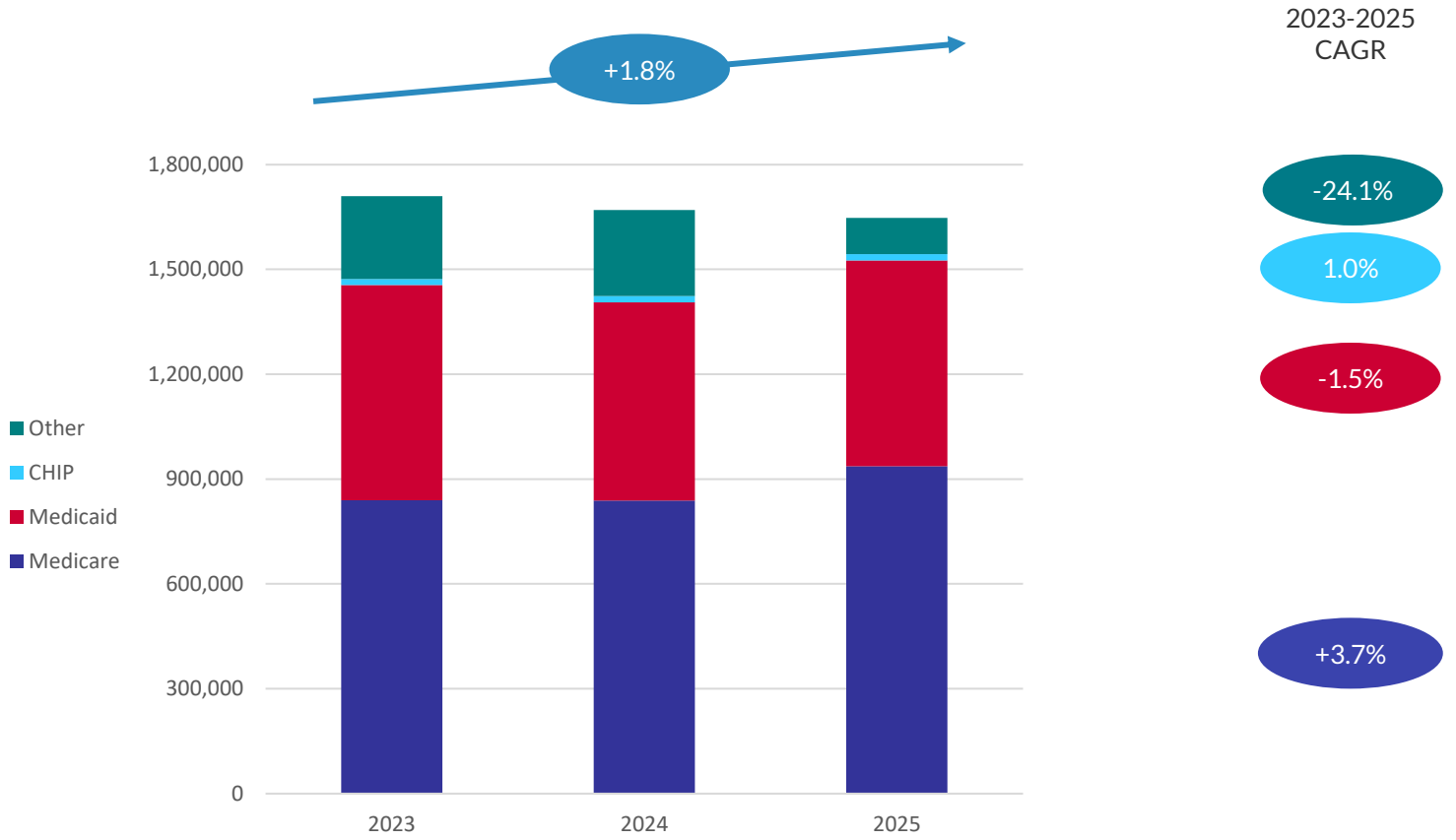


DM = developed markets. Source: World Health Organization, BMI

Government Healthcare Budget

Growth In Budget Outlay Will Slow To 2025

US – Federal Government Healthcare Budget Outlays, USDmn (2023-2025)



Source: US Department of Health and Human Services, BMI

Key View

The president's budget outlays for Health and Human Services are set to increase by a CAGR of 1.8% over the 2023-2025 period, down from the 6.0% increase recorded over the 2021-2023 period. After a 2.3% drop in FY2024, the FY2025 HHS budget of USD1.8trn for mandatory programmes represents a budget increase of 7.9%.

Medicare and Medicaid will represent 85% of mandatory programme budgeted outlays for FY2025. The Children's Health Insurance Program (CHIP) budget will account for 1.0% of the total.

FY2025 operating division budget outlays will include USD46.6bn for the National Institutes of Health (NIH) and USD4.0bn for the FDA.

4

Healthcare Resources And Activity

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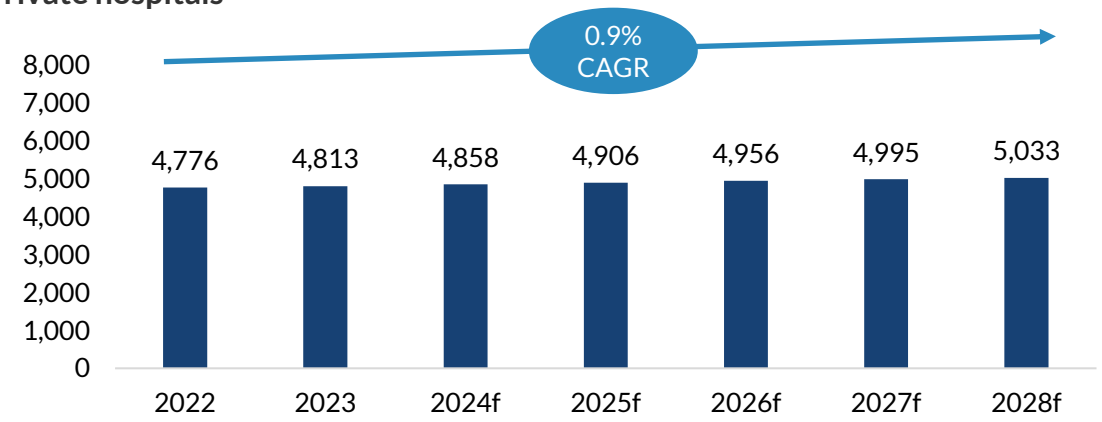
Hospital Resources Forecast

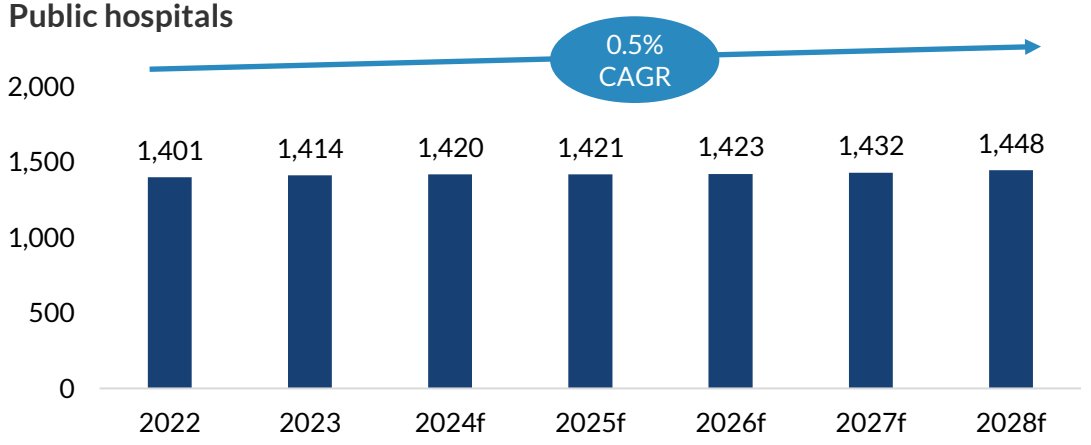
US Hospital Bed Total Approaching 1mn

US – Number Of Private Hospitals, Public Hospitals, Hospital Beds & Hospital Beds Per 1,000 Population

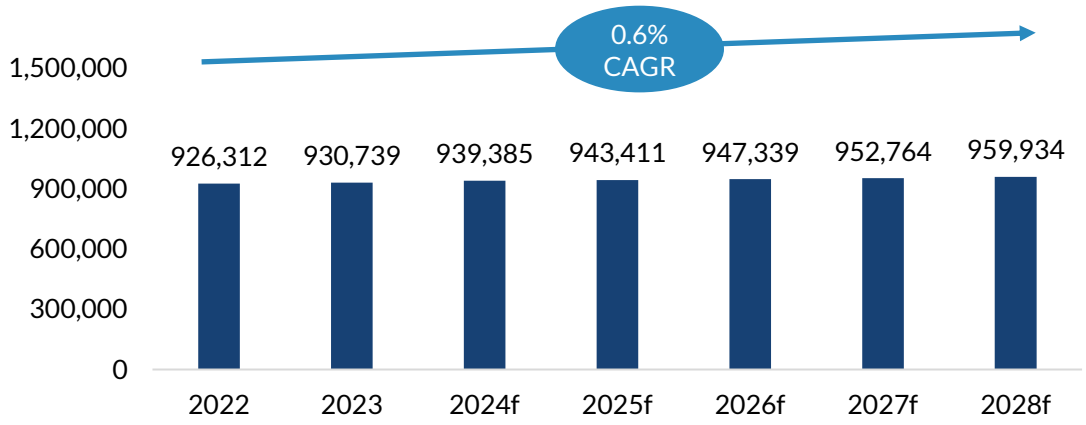
Private hospitals



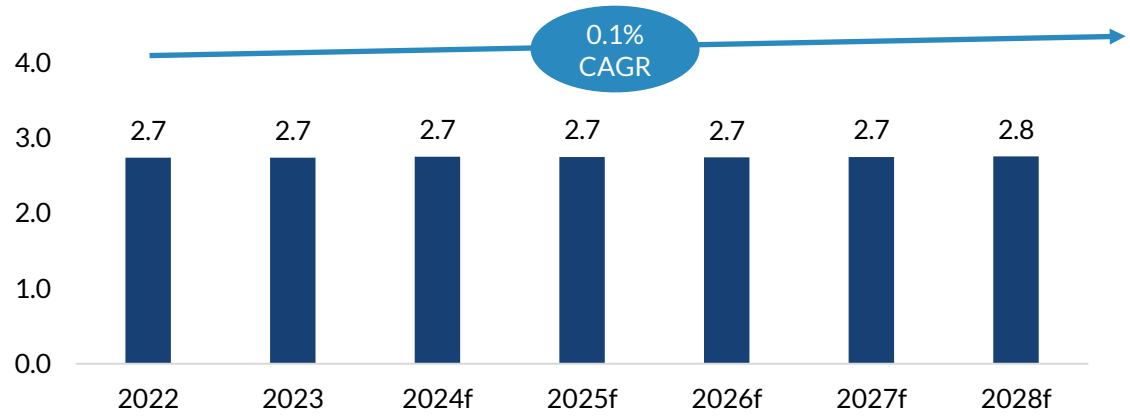
Public hospitals



Hospital beds



Hospital beds per 1,000 population

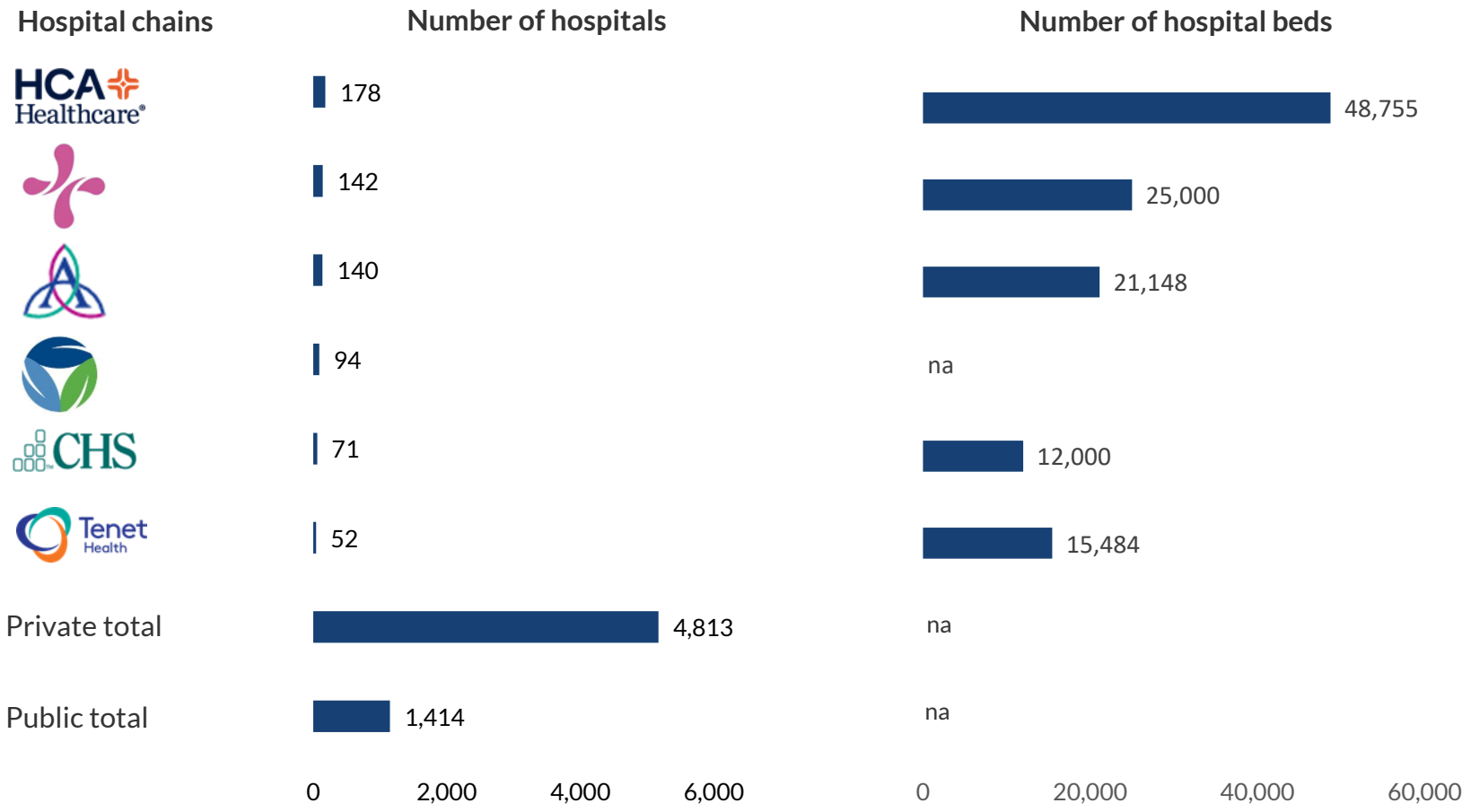


f = forecast. Source: BMI

Private Healthcare Providers

Majority Of Health Facilities Are In Private Sector

US – Hospitals & Hospitals Beds In Private & Public Healthcare Sectors (2023-2024)



na = not applicable/available. Source: BMI

Key View

Over three quarters of US hospitals are under private ownership. Both the private commercial sector and the non-profit sector are well represented.

HCA Healthcare is the largest hospital group in the US, operating 178 acute hospitals and more than 2,300 other healthcare facilities across 20 states. Revenues totalled USD65.0bn in 2023.

The largest non-profit hospital groups are CommonSpirit, with 140 hospitals in 21 states and Ascension, a Catholic health system which provides an estimated 25,000 beds in 140 hospitals.

Healthcare Sector Comparison

Majority Of Americans Are Covered By Private Health Insurance

US – Comparative Analysis Of Public Sector Healthcare & Private Sector Healthcare

	Public Sector Healthcare	Private Sector Healthcare
Sources of funds	Public sector programmes such as Medicare, Medicaid, the Children's Health Insurance Program (CHIP) and the Veterans Health Administration (VHA) are funded by the **federal government.**	Private healthcare coverage is funded through **employer-sponsored health insurance,** private insurance and out-of-pocket payments.
Coverage	Medicare and Medicaid provide **subsidised assistance** to the elderly, the disabled and those on low incomes. CHIP covers uninsured children in families that don't quality for Medicaid. Military veterans are covered by the VHA.	**Private health insurance** accounts for around a third of total US health expenditure and is the primary form of coverage for two-thirds of the population. Hospitals are free to choose which insurance plans they accept.
Providers	Public sector hospitals are owned by state or local governments and the federal government, including VHA facilities.	Private healthcare providers include both **for-profit** and **non-profit** hospital groups. Most short-stay acute hospitals in the US fall within the non-profit sector.
Co-payments	Medicare patients pay a part of costs through **deductibles** for hospital and other costs. A small co-payment is sometimes required for Medicaid expenses.	**Co-payments** and **deductibles** are features of most **health insurance plans.** Co-payments tend to be highest for emergency treatment.

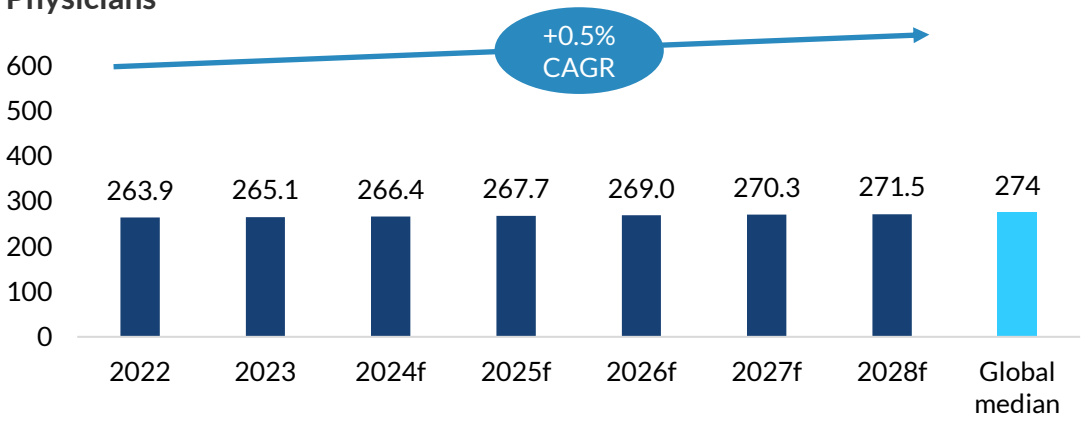
Source: BMI

Healthcare Personnel Forecast

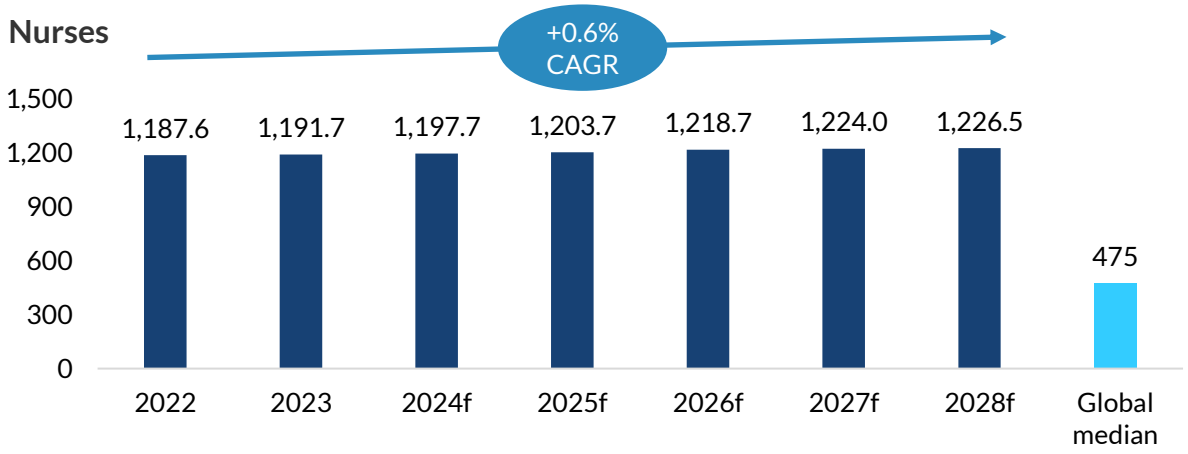
Number Of Physicians Will Remain Below Global Average

US – Number Of Healthcare Personnel Per 100,000 Population & Global Median

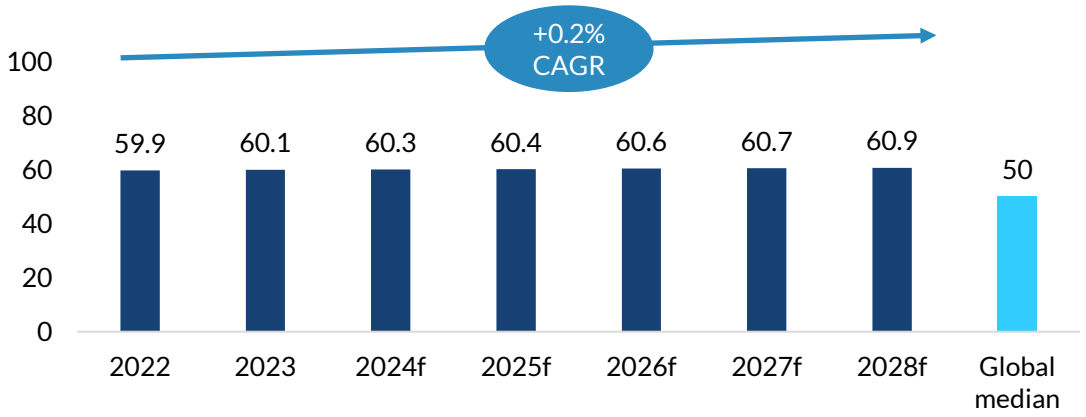
Physicians



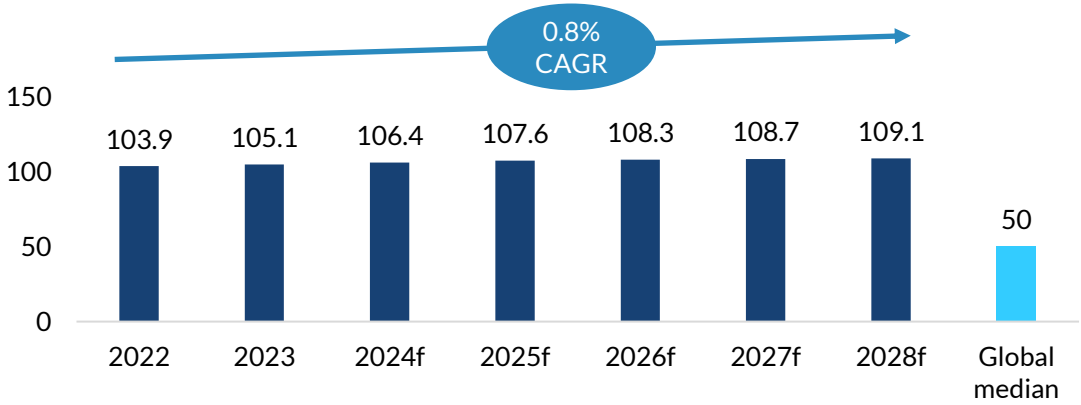
Nurses



Pharmacists



Dentists



Note: Global median data for 2023. f = forecast. Source: BMI

Public Sector Healthcare Services

Public Programme Beneficiaries Generally Required To Make Co-Payments

US & Select Developed Markets – Reimbursed Or Free At The Point Of Delivery Public Sector Healthcare Services

Source: BMI

Key View

The US does not guarantee health coverage. Public health coverage is available through the Medicare and Medicaid programmes, which together provide subsidised assistance to the elderly, disabled and those on low incomes.

The Children's Health Insurance Program and the Veterans Health Administration are also federally funded bodies, providing health services to children not covered by insurance and military veterans respectively.

Patients who do not have private health insurance or fail to qualify for the federally assisted programmes may have to rely on charitable institutions.

Public Sector Healthcare Services

Free Access To Health Services Is Not Guaranteed By Public Sector

US – Reimbursed Or Free At Point Of Delivery Public Sector Healthcare Services

Eye check

Not covered

Vision care is not covered by the public sector.

Health check

Not covered

EPSDT – Early and Periodic Screening, Diagnostic, and Treatment Services are designated a mandatory benefit under the Medicaid programme.

Influenza vaccine

Partially covered

Influenza vaccination is available to over 65s under Medicaid Part B and some county health departments offer free shots during the flu season.

Maternity

Fully covered

Pregnancy-related services are exempt from out-of-pocket costs under Medicaid coverage.

Dental

Partially covered

Individual states are required to provide dental benefits to children covered by Medicaid and the Children's Health Insurance Program.

Optical glasses

Not covered

Optical glasses are not covered by the public sector.

Prescription drugs

Partially covered

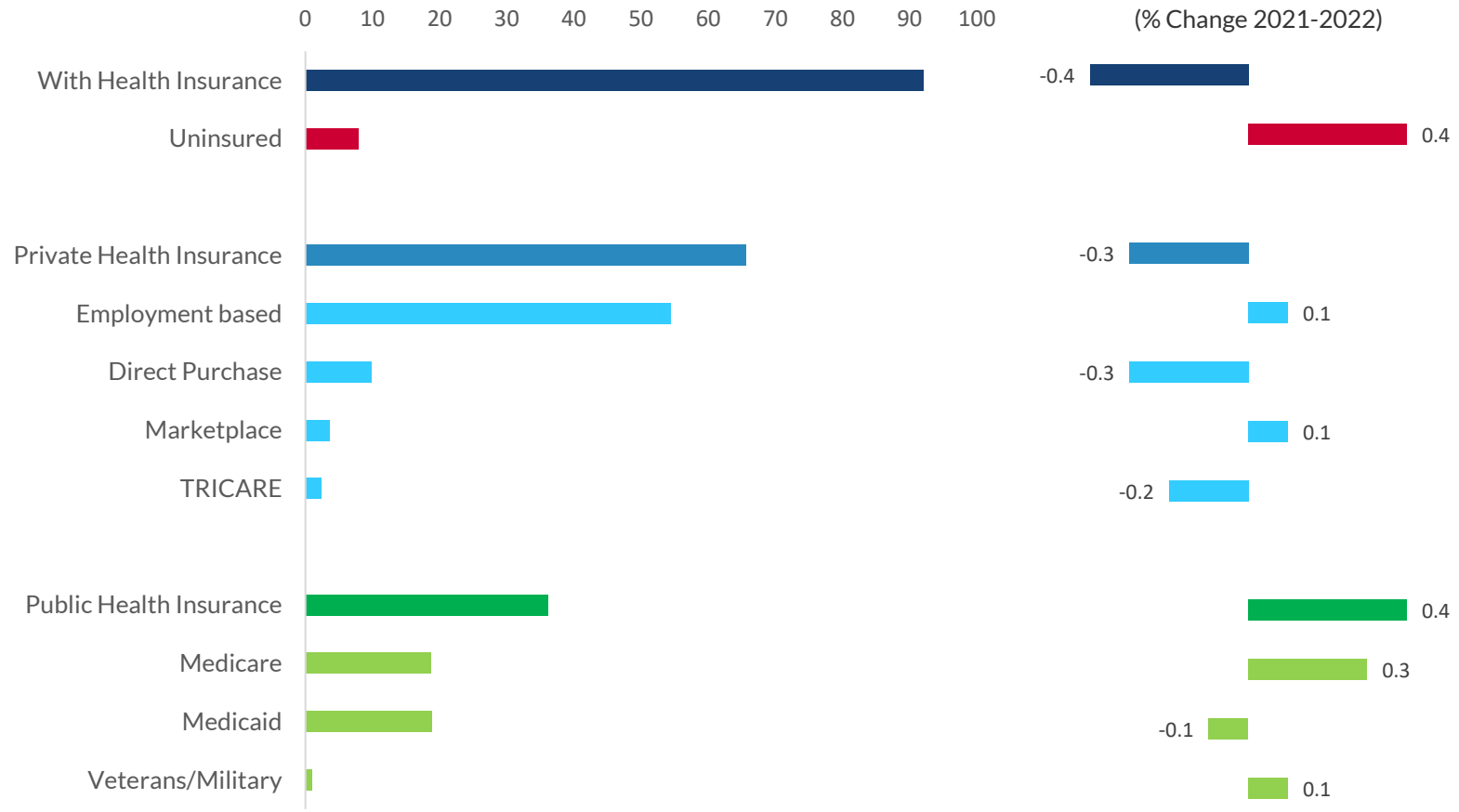
Under Medicaid, co-payment for prescription drugs is capped according to the level of family income.

Source: BMI

Private Health Insurance

Over 90% Of Americans Now Have Health Insurance

US – Health Insurance Coverage, % (2022)



Source: US Census Bureau, BMI

Key View

Over 90% of US citizens held either public or private health insurance in 2022, with two thirds of those enrolling in private plans.

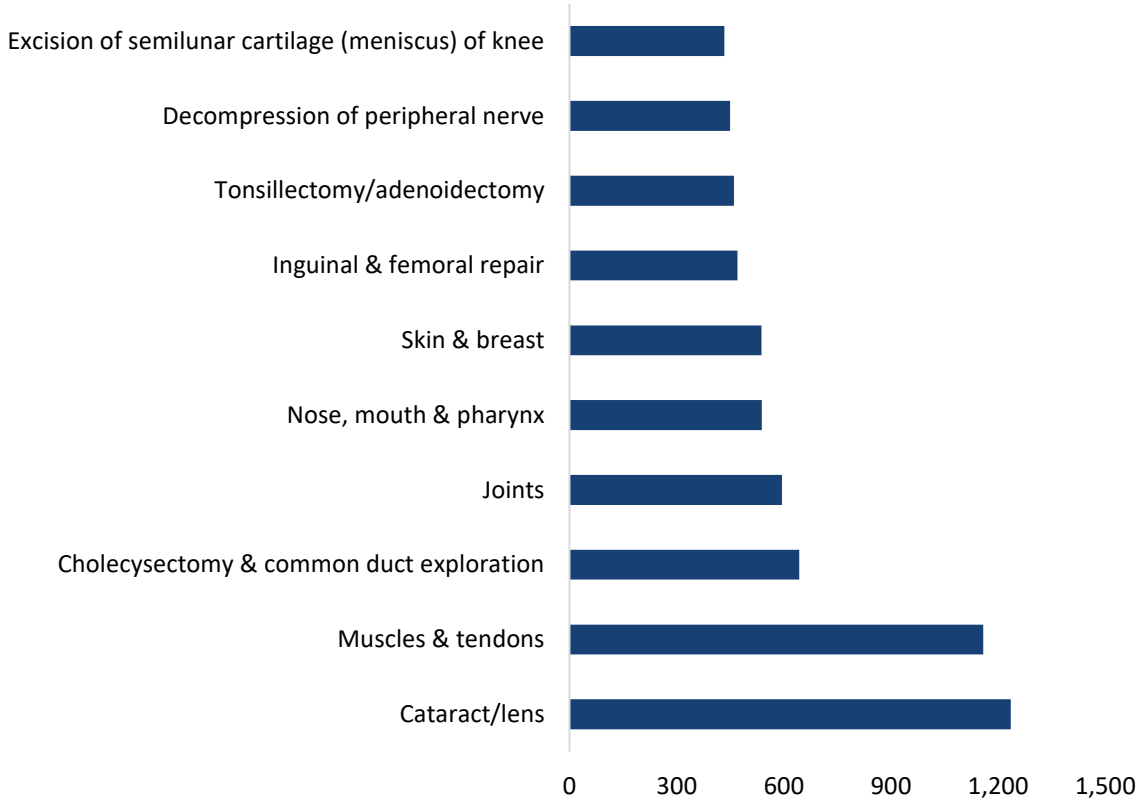
Private insurance is still predominantly employment-based, although the number of policy holders fell slightly between 2021 and 2022

Growth within the insurance sector over 2021-2022 was restricted to the Marketplace which facilitates the purchase of health insurance in compliance with the Patient Protection and Affordable Care Act (ACA) 2014.

Surgical Procedures

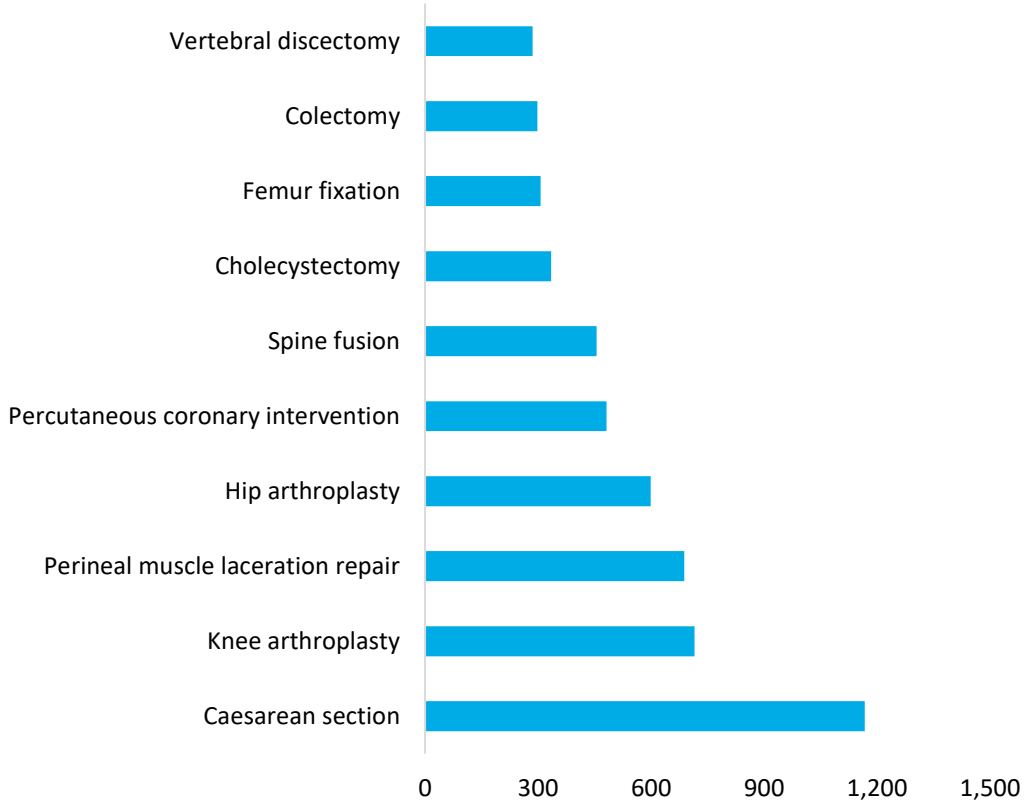
Ambulatory Settings Account For Half Of All Surgical Activity

US – Top 10 Ambulatory Surgical Procedures By Type Or Site, '000 (2019)



Caesarean Sections And Joint Replacements Predominate

US – Top 10 Operating Room Surgical Procedures, '000 (2018)



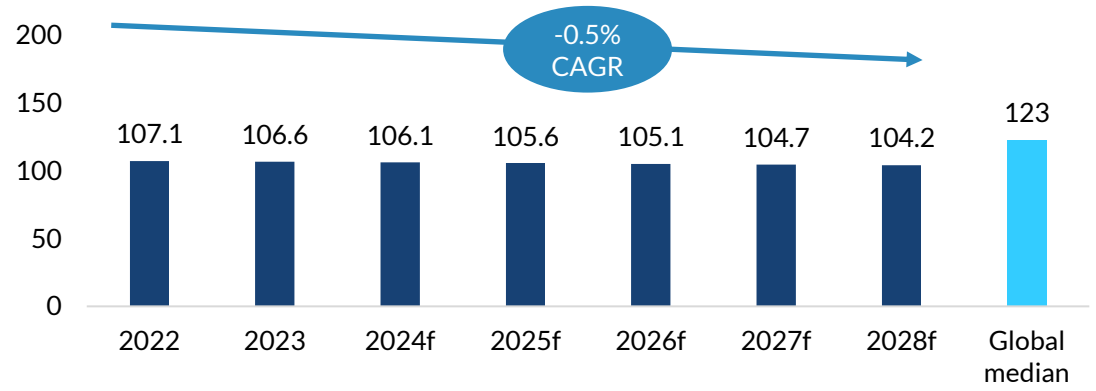
Source: Agency for Healthcare Research and Quality, BMI

Healthcare Activity Forecast

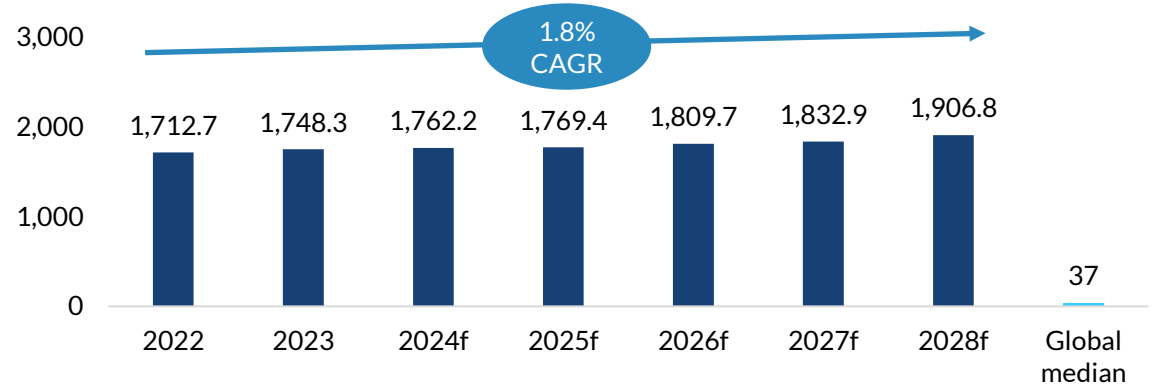
Increasing Prevalence Of Surgical Procedures

US – Number Of Inpatient Admissions, Surgical Procedures, Outpatient Visits & Average Length Of Stay In Hospital & Global Median

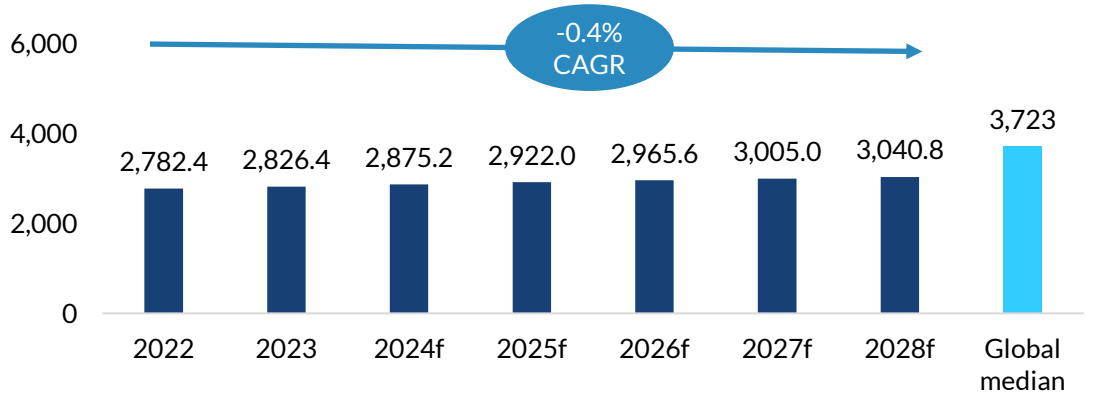
Inpatient admissions, per 1,000 population



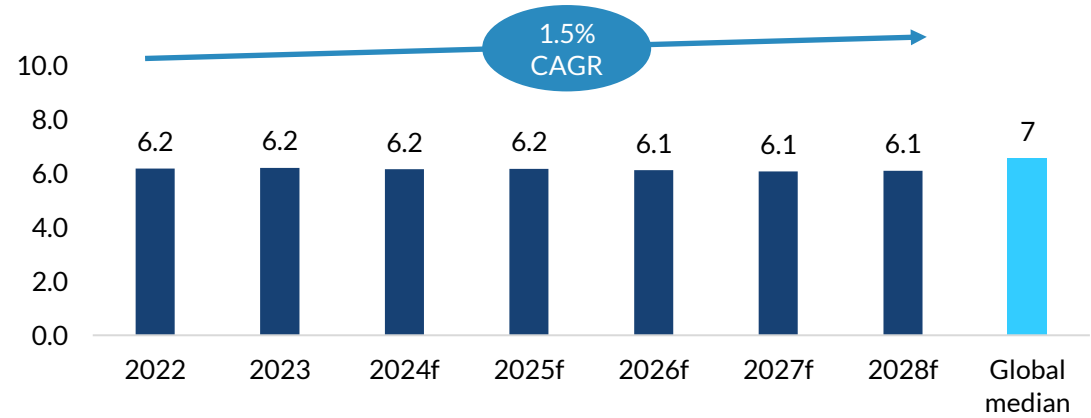
Surgical procedures, per 1,000 population



Outpatient visits, per 1,000 population



Average length of stay in hospital, days



Note: Global median data for 2023. f = forecast. Source: BMI

5

Digital Health

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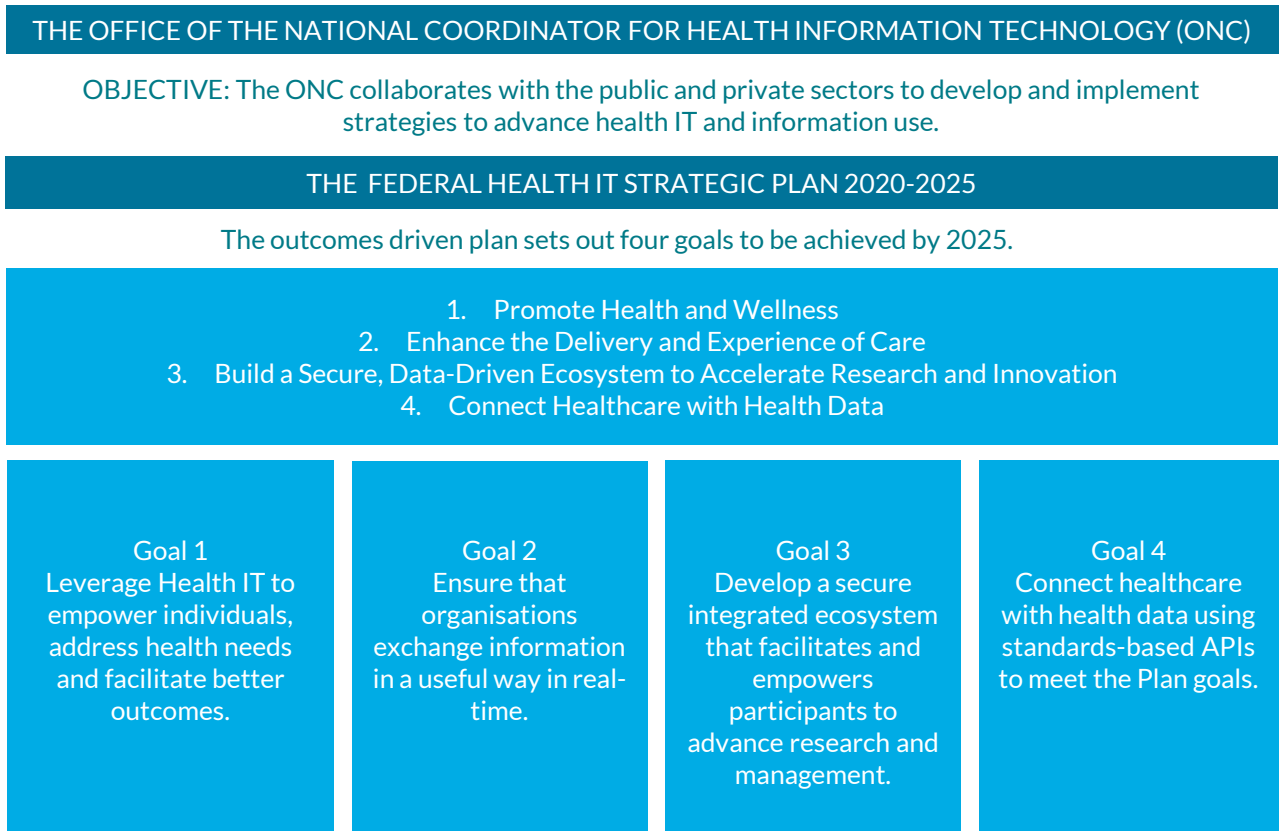
Digital Health Strategy

Advancing Health IT Initiatives And Activities Through To 2025

US – Federal Health IT Strategic Plan



Source: ONC, BMI

Key View

The US has a well-established digital health framework that has become an essential part of healthcare delivery, spurred on by federal government regulation and financial support.

The Office of the National Coordinator for Health Information Technology has issued a five-year (2020-2025) strategic plan that outlines how the federal government intends to use Health IT to promote the secure access of electronic health information to improve health.

In March 2024, the ONC released a draft 2024-2030 Plan for public comment. This new plan aims for 'a healthier, more innovative, and more equitable health care experience'.

Digital Health Commercialisation Opportunities

Digital Health Market Continuing To Thrive Post-Covid

US – Outlook For Select Digital Health Technologies

Telemedicine

The Covid-19 pandemic was a huge impetus for the uptake of telemedicine with usage surging to account for almost half of all Medicare patient contacts in Q2 2020. An estimated 12% of 'visits' in Q3 2023 is still significantly higher than pre-pandemic levels.

Moderate growth outlook

Electronic healthcare records

As of 2021, 96% of hospitals and 78% of office-based physicians' had adopted a certified EHR. Take-up of EHRs has been assisted by the Health Insurance Portability and Accountability Act (HIPAA) and the 21st Century Cures Act.

Moderate growth outlook

Smart hospitals

In October 2023, President Biden signed an Executive Order confirming the administration's commitment to the safe and responsible development of AI with the potential to benefit manufacturers, healthcare professionals and providers, resulting in improved health outcomes for patients.

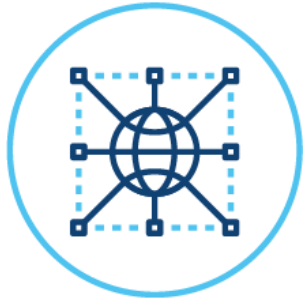
High growth outlook

Big data

The NIH's 'All of Us' Research Program aims to gather data from 1mn people to integrate EHRs, behavioural and family data to build a diverse database that will help inform health studies and research projects. The NIH spent USD175mn on the use of large datasets in FY2022.

High growth outlook

Connected devices and apps



The uptake of connected healthcare devices and apps is high and supporting a thriving digital health industry. Digital therapeutics and digital care tools and products are proliferating as they benefit from multiple commercialisation pathways.

High growth outlook

Growth outlook legend: Very low, Low, Moderate, High, Very high. Source: BMI

Digital Health Case Study: Hello Heart

Affordable Telehealth Solution For Urgent And Every-day Care

Hello Heart's Digital Health Commercial Offering

Products and services	Hello Heart focuses exclusively on cardiovascular care. Its handheld monitor connects to an app that enables patients to manage heart metrics such as blood pressure, cholesterol and medication tracking – offering lifestyle guidance and sharing results with physicians.
Positioning and partnerships	Founded in 2013, Hello Heart has offices in Silicon Valley, New York and Tel Aviv. The company has raised USD138mn in financing to-date. Hello Heart works with over 110 health plans, employers and labour organisations including Aetna, 3M, CVS, Delta and VHC Health.
Pricing and reimbursement	Hello Heart is offered through employers, labour organisations and health plans which pay annual recurring fees for the provision of the monitor and access to the digital health platform.
Promotional activities	Hello Heart is focused on growing partnerships with institutional customers and encourages individuals to check their eligibility to sign up. Hello Heart intends to produce a benchmark report on heart health for health plans to increase awareness among employers.

Image: Blood Pressure Monitor, Hello Heart

Source: American Well Corporation, BMI

6

Disease Burden And Demographics

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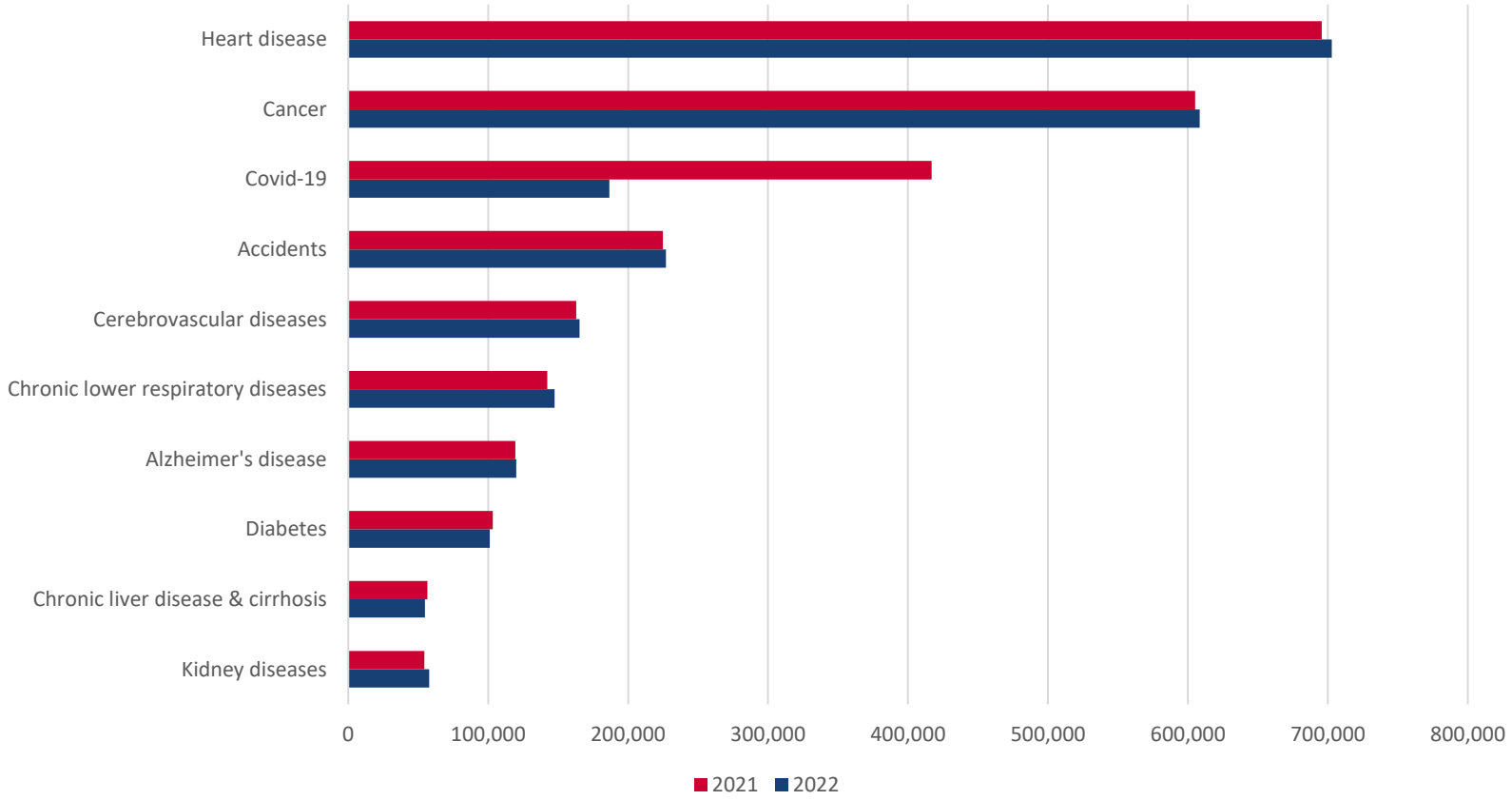
Mortality And Causes Of Death

Major Causes Of Mortality Rise Again As Covid-19 Mortality Halves

US – Mortality & Causes Of Death (2021-2022)



Source: Centers for Disease Control and Prevention, BMI

Key View

Heart disease and cancer are the major causes of mortality in the US, accounting for 40% of total deaths in 2022.

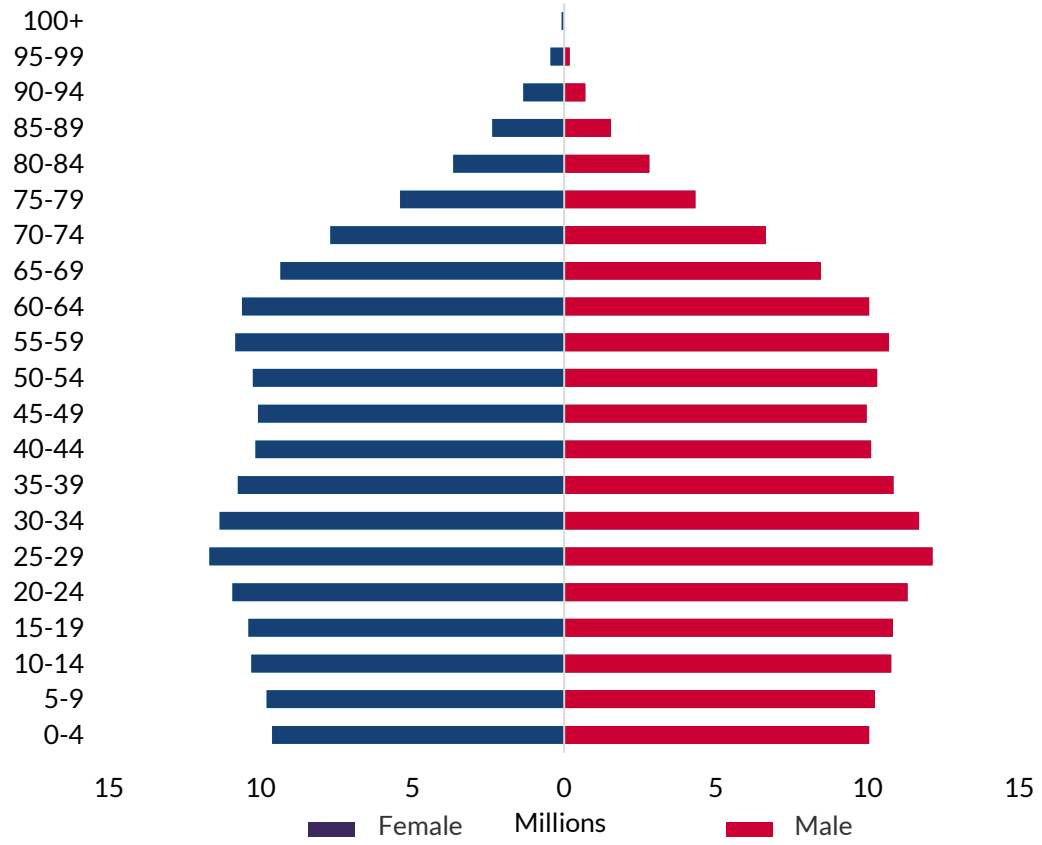
Covid-19 mortality more than halved in 2022, becoming the fourth leading cause of death in 2022, having been third in 2021 and appearing in the top 10 list for the first time in 2020. Causes of death that increased in 2022 included heart disease, cancer, accidents, cerebrovascular diseases, kidney diseases, chronic lower respiratory diseases and Alzheimer's.

The number of deaths registered in the US decreased by 5.3% in 2022 as the surge in pandemic-related deaths abated.

Demographic Outlook

Females Outnumber Males Over 60

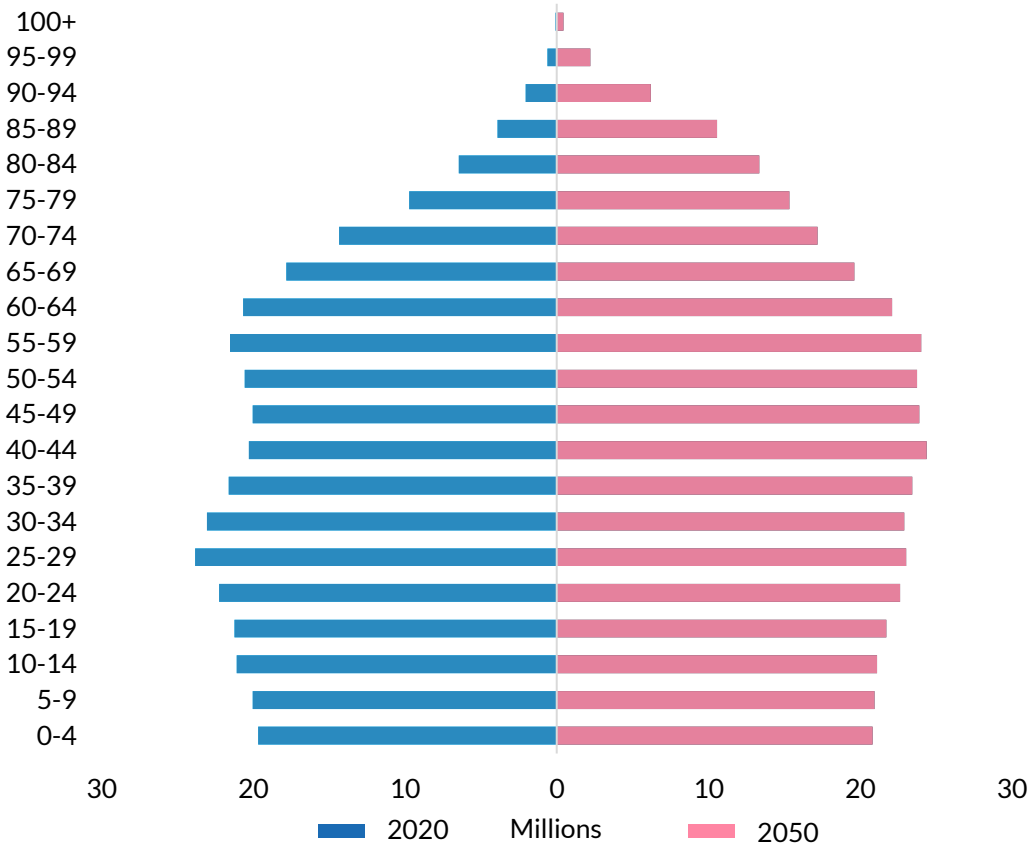
US – Female & Male Population By Five-Year Age Groups In 2020



Source: United Nations, Department of Economic and Social Affairs, Population Division, BMI

Strong Increase In Over 65 Age Group By 2050

US – Total Population By Five-Year Age Groups In 2020 & 2050

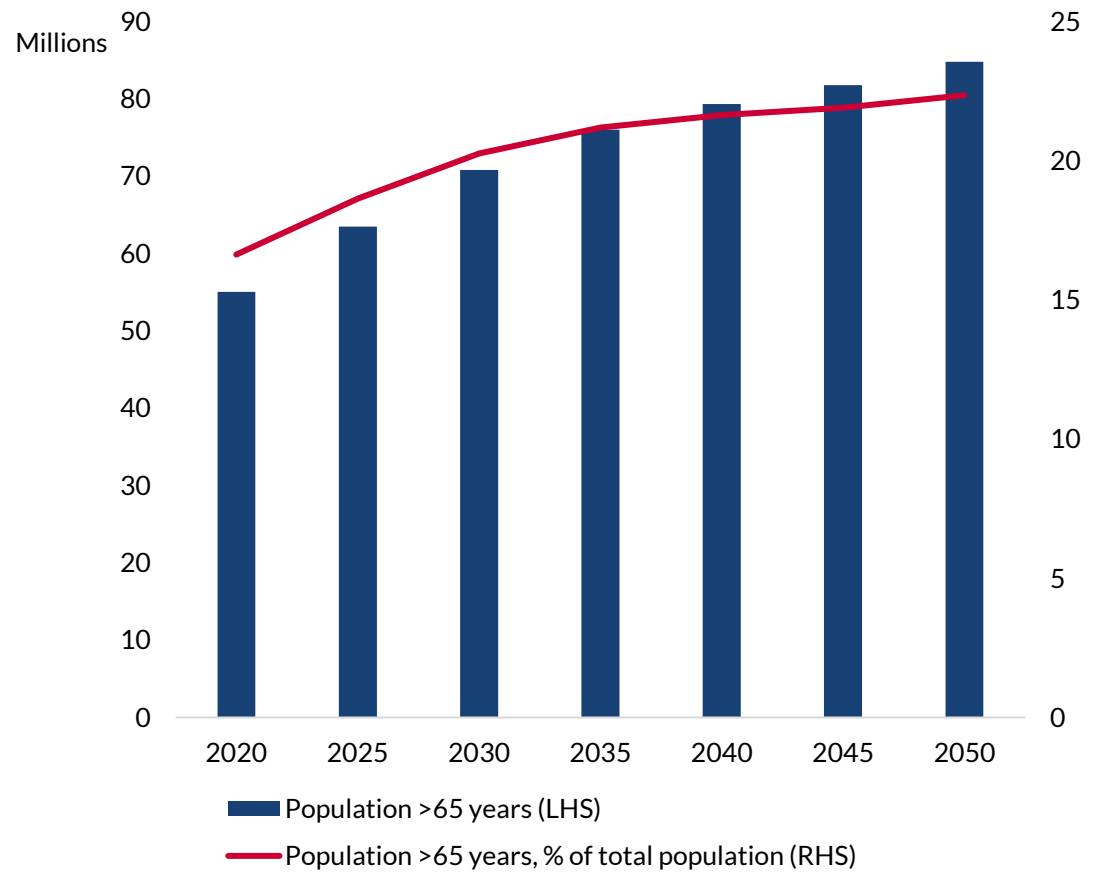


Source: United Nations, Department of Economic and Social Affairs, Population Division, BMI

Demographic Outlook

Population Over 65 Steadily Increasing

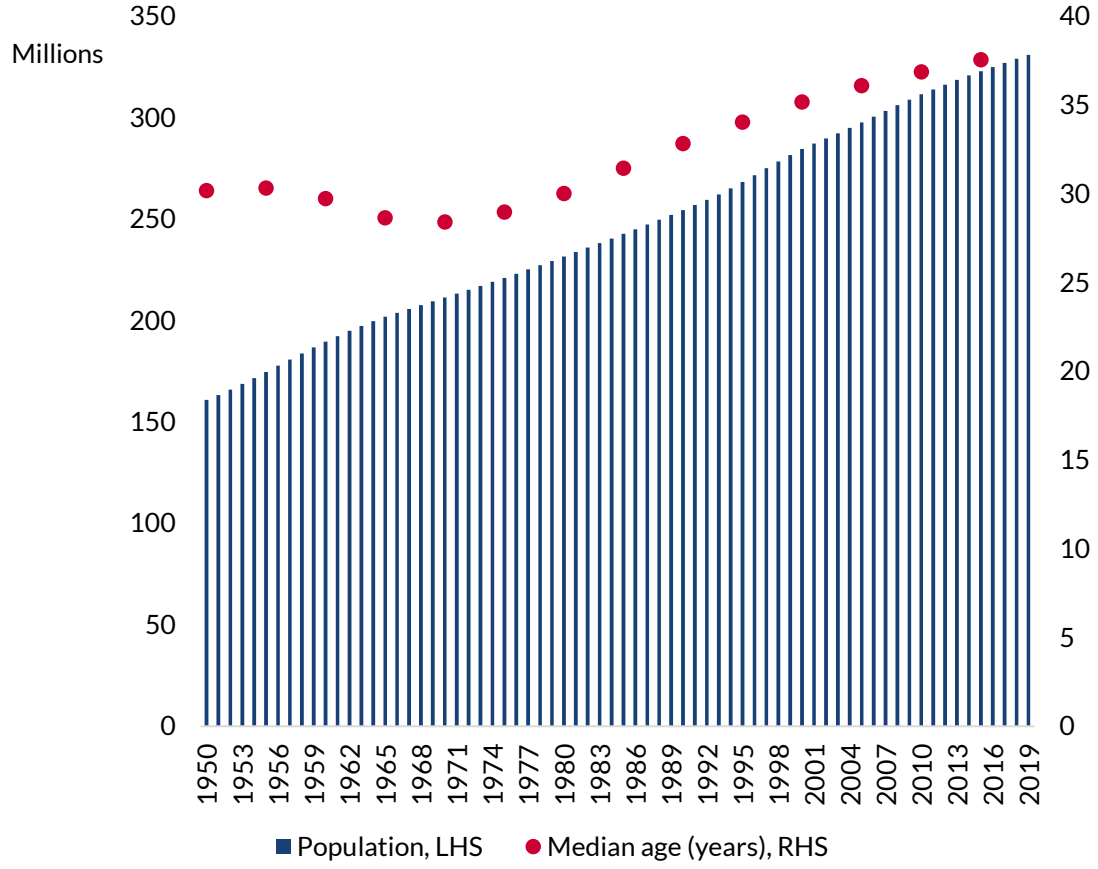
US – Population Aged >65 Years, mn & % of total population



Source: United Nations, Department of Economic and Social Affairs, Population Division, BMI

Strong Rise In Median Age Of Population

US – Total Population, mn & Median Age, years



Source: United Nations, Department of Economic and Social Affairs, Population Division, BMI

7

Data Tables

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Health Expenditure Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Health expenditure, USDbn	3,415.6	3,576.1	3,738.8	4,204.1	4,317.4	4,693.5	4,832.4	5,013.6	5,333.0	5,628.5	5,956.1	6,307.4	6,579.4	6,935.3	7,331.4	7,766.4	8,610.5
Health expenditure, USD, % chg y-o-y	4.2	4.7	4.6	12.4	2.7	8.7	3.0	3.7	6.4	5.5	5.8	5.9	4.3	5.4	5.7	5.9	10.9
Health expenditure, USD, five-year forecast CAGR	6.6	6.2	6.0	4.9	5.4	4.9	5.5	5.6	5.4	5.4	5.5	6.4	-	-	-	-	-
Health expenditure per capita, USD	10,356.8	10,766.8	11,183.4	12,514.5	12,811.5	13,874.1	14,213.1	14,667.6	15,520.8	16,297.4	17,159.6	18,083.0	18,772.0	19,693.5	20,721.6	21,851.7	24,119.5
Health expenditure per capita, USD, % chg y-o-y	3.4	4.0	3.9	11.9	2.4	8.3	2.4	3.2	5.8	5.0	5.3	5.4	3.8	4.9	5.2	5.5	10.4
Health expenditure, USDbn	3,415.6	3,576.1	3,738.8	4,204.1	4,317.4	4,693.5	4,832.4	5,013.6	5,333.0	5,628.5	5,956.1	6,307.4	6,579.4	6,935.3	7,331.4	7,766.4	8,610.5
Health expenditure, USD, % chg y-o-y	4.2	4.7	4.6	12.4	2.7	8.7	3.0	3.7	6.4	5.5	5.8	5.9	4.3	5.4	5.7	5.9	10.9
Health expenditure, USD, five-year forecast CAGR	6.6	6.2	6.0	4.9	5.4	4.9	5.5	5.6	5.4	5.4	5.5	6.4	-	-	-	-	-
Health expenditure per capita, USD	10,356.8	10,766.8	11,183.4	12,514.5	12,811.5	13,874.1	14,213.1	14,667.6	15,520.8	16,297.4	17,159.6	18,083.0	18,772.0	19,693.5	20,721.6	21,851.7	24,119.5
Health expenditure per capita, USD, % chg y-o-y	3.4	4.0	3.9	11.9	2.4	8.3	2.4	3.2	5.8	5.0	5.3	5.4	3.8	4.9	5.2	5.5	10.4
Health expenditure, % of GDP	17.4	17.3	17.4	19.7	18.3	18.2	17.7	17.6	18.2	18.4	18.7	19.1	19.2	19.5	19.9	20.3	21.7

Source: WHO, BMI

Government Health Expenditure Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Government health expenditure, USDbn	1,753.5	1,831.4	1,921.8	2,252.7	2,219.5	2,466.1	2,496.0	2,562.7	2,705.4	2,844.2	3,005.6	3,176.6	3,361.7	3,572.0	3,809.5	4,073.1	4,548.8
Government health expenditure, USD, % chg y-o-y	3.8	4.4	4.9	17.2	-1.5	11.1	1.2	2.7	5.6	5.1	5.7	5.7	5.8	6.3	6.6	6.9	11.7
Government health expenditure, USD, five-year forecast CAGR	7.1	6.4	5.9	3.7	5.1	4.0	4.9	5.6	5.7	6.0	6.3	7.4	-	-	-	-	-
Government health expenditure per capita, USD	5,317.0	5,514.0	5,748.4	6,705.5	6,586.1	7,290.0	7,341.2	7,497.3	7,873.6	8,235.4	8,659.1	9,107.2	9,591.3	10,142.9	10,767.2	11,460.3	12,742.1
Government health expenditure per capita, USD, % chg y-o-y	3.0	3.7	4.3	16.7	-1.8	10.7	0.7	2.1	5.0	4.6	5.1	5.2	5.3	5.8	6.2	6.4	11.2
Government health expenditure, USDbn	1,753.5	1,831.4	1,921.8	2,252.7	2,219.5	2,466.1	2,496.0	2,562.7	2,705.4	2,844.2	3,005.6	3,176.6	3,361.7	3,572.0	3,809.5	4,073.1	4,548.8
Government health expenditure, USD, % chg y-o-y	3.8	4.4	4.9	17.2	-1.5	11.1	1.2	2.7	5.6	5.1	5.7	5.7	5.8	6.3	6.6	6.9	11.7
Government health expenditure, USD, five-year forecast CAGR	7.1	6.4	5.9	3.7	5.1	4.0	4.9	5.6	5.7	6.0	6.3	7.4	-	-	-	-	-
Government health expenditure per capita, USD	5,317.0	5,514.0	5,748.4	6,705.5	6,586.1	7,290.0	7,341.2	7,497.3	7,873.6	8,235.4	8,659.1	9,107.2	9,591.3	10,142.9	10,767.2	11,460.3	12,742.1
Government health expenditure per capita, USD, % chg y-o-y	3.0	3.7	4.3	16.7	-1.8	10.7	0.7	2.1	5.0	4.6	5.1	5.2	5.3	5.8	6.2	6.4	11.2
Government health expenditure, % of GDP	8.9	8.9	8.9	10.6	9.4	9.6	9.1	9.0	9.3	9.3	9.5	9.6	9.8	10.0	10.3	10.6	11.4

Source: WHO, BMI

Private Health Expenditure Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Private health expenditure, USDbn	1,662.1	1,744.7	1,817.0	1,951.5	2,097.9	2,227.3	2,336.4	2,450.9	2,627.6	2,784.3	2,950.5	3,130.8	3,217.8	3,363.4	3,521.9	3,693.2	4,061.6
Private health expenditure, USD, % chg y-o-y	4.7	5.0	4.1	7.4	7.5	6.2	4.9	4.9	7.2	6.0	6.0	6.1	2.8	4.5	4.7	4.9	10.0
Private health expenditure, USD, five-year forecast CAGR	6.0	6.0	6.2	6.1	5.8	5.8	6.0	5.6	5.1	4.8	4.6	5.3	-	-	-	-	-
Private health expenditure per capita, USD	5,039.8	5,252.8	5,435.0	5,809.0	6,225.4	6,584.1	6,872.0	7,170.3	7,647.2	8,062.0	8,500.4	8,975.8	9,180.6	9,550.6	9,954.3	10,391.4	11,377.4
Private health expenditure per capita, USD, % chg y-o-y	3.9	4.2	3.5	6.9	7.2	5.8	4.4	4.3	6.7	5.4	5.4	5.6	2.3	4.0	4.2	4.4	9.5
Private health expenditure, USDbn	1,662.1	1,744.7	1,817.0	1,951.5	2,097.9	2,227.3	2,336.4	2,450.9	2,627.6	2,784.3	2,950.5	3,130.8	3,217.8	3,363.4	3,521.9	3,693.2	4,061.6
Private health expenditure, USD, % chg y-o-y	4.7	5.0	4.1	7.4	7.5	6.2	4.9	4.9	7.2	6.0	6.0	6.1	2.8	4.5	4.7	4.9	10.0
Private health expenditure, USD, five-year forecast CAGR	6.0	6.0	6.2	6.1	5.8	5.8	6.0	5.6	5.1	4.8	4.6	5.3	-	-	-	-	-
Private health expenditure per capita, USD	5,039.8	5,252.8	5,435.0	5,809.0	6,225.4	6,584.1	6,872.0	7,170.3	7,647.2	8,062.0	8,500.4	8,975.8	9,180.6	9,550.6	9,954.3	10,391.4	11,377.4
Private health expenditure per capita, USD, % chg y-o-y	3.9	4.2	3.5	6.9	7.2	5.8	4.4	4.3	6.7	5.4	5.4	5.6	2.3	4.0	4.2	4.4	9.5
Private health expenditure, % of GDP	8.5	8.4	8.4	9.2	8.9	8.7	8.5	8.6	9.0	9.1	9.3	9.5	9.4	9.5	9.5	9.6	10.2

Source: WHO, BMI

Healthcare Facilities Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Hospitals	6,210	6,146	6,090	6,149	6,201	6,257	6,314	6,373	6,429	6,484	6,535	6,582	6,627	6,665	6,687	6,696	6,700
Hospitals, % chg y-o-y	12.2	-1.0	-0.9	1.0	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.7	0.6	0.3	0.1	0.1
Public hospitals	1,193	1,181	1,190	1,202	1,190	1,202	1,214	1,226	1,239	1,251	1,264	1,276	1,289	1,302	1,315	1,328	1,341
Private hospitals	5,017	4,965	4,900	4,947	5,011	5,055	5,100	5,147	5,190	5,233	5,271	5,306	5,338	5,363	5,372	5,368	5,359
Hospital beds	931,203	924,107	919,559	928,232	941,587	953,105	961,494	969,216	977,143	985,157	993,010	1,000,890	1,008,934	1,016,846	1,024,512	1,032,061	1,039,839
Hospital beds, % chg y-o-y	4.1	-0.8	-0.5	0.9	1.4	1.2	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8
Hospital bed occupancy rate	66	66	67	66	66	65	64	63	63	62	61	61	60	59	58	57	56
Average length of stay	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Inpatient admissions, '000	36,510	36,354	36,242	36,255	36,244	36,242	36,258	36,278	36,296	36,313	36,328	36,342	36,355	36,367	36,377	36,386	36,393
Surgical procedures, '000	517,867	521,147	537,101	495,265	556,163	548,888	549,689	562,173	566,509	574,726	568,839	571,200	581,101	600,144	620,956	643,476	667,320
Outpatient visits, '000	880,451	879,628	900,689	873,956	901,803	923,496	925,390	929,167	932,308	934,373	935,115	934,801	933,890	931,976	928,698	924,165	918,859

Source: OECD.Stat, BMI

Healthcare Personnel Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Physicians	849,126	851,641	866,316	872,123	874,735	878,668	884,924	891,804	898,518	905,075	911,468	917,704	923,832	929,842	935,685	941,340	946,812
Physicians, % chg y-o-y	1.6	0.3	1.7	0.7	0.3	0.4	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Physicians, % public	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nurses	3,122,270	3,181,380	3,233,380	3,246,860	3,333,920	3,365,755	3,413,163	3,468,094	3,526,164	3,572,589	3,605,705	3,628,784	3,648,138	3,656,570	3,648,765	3,627,904	3,610,585
Nurses, % chg y-o-y	2.3	1.9	1.6	0.4	2.7	1.0	1.4	1.6	1.7	1.3	0.9	0.6	0.5	0.2	-0.2	-0.6	-0.5
Nurses, % public	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dentists	198,500	199,500	200,400	201,100	201,900	202,422	203,385	204,462	205,503	206,510	207,483	208,422	209,336	210,226	211,080	211,896	212,674
Dentists, % chg y-o-y	1.0	0.5	0.5	0.3	0.4	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Pharmacists	309,330	309,550	311,200	324,934	321,265	322,417	324,119	326,947	331,603	339,647	345,943	350,977	355,200	358,074	358,811	358,271	363,997
Pharmacists, % chg y-o-y	1.3	0.1	0.5	4.4	-1.1	0.4	0.5	0.9	1.4	2.4	1.9	1.5	1.2	0.8	0.2	-0.2	1.6

Source: OECD.Stat, BMI

Demographics Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Population, mn	329.8	332.1	334.3	335.9	337.0	338.3	340.0	341.8	343.6	345.4	347.1	348.8	350.5	352.2	353.8	355.4	357.0
Population, % y-o-y	0.8	0.7	0.7	0.5	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Population, male, mn	163.3	164.5	165.7	166.5	166.9	167.5	168.3	169.2	170.0	170.9	171.7	172.5	173.4	174.2	175.0	175.8	176.6
Population, male, % y-o-y	0.9	0.8	0.7	0.5	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Population, female, mn	166.5	167.6	168.6	169.4	170.1	170.8	171.7	172.6	173.6	174.5	175.4	176.3	177.1	178.0	178.8	179.6	180.4
Population, female, % y-o-y	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Population, female, % of total	50.5	50.5	50.4	50.4	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
Population, 65+ years, mn	49.7	51.1	52.8	54.5	56.2	57.9	59.8	61.8	63.7	65.6	67.4	69.1	70.8	72.3	73.6	74.8	75.9
Population, 65+ year, % y-o-y	3.5	2.9	3.2	3.2	3.1	3.1	3.2	3.3	3.2	3.0	2.7	2.5	2.4	2.2	1.8	1.6	1.5
Population, 65+ years, % of total	15.1	15.4	15.8	16.2	16.7	17.1	17.6	18.1	18.5	19.0	19.4	19.8	20.2	20.5	20.8	21.0	21.3
Median age of population	36.9	37.1	37.3	37.5	37.7	37.9	38.1	38.3	38.6	38.8	39.0	39.2	39.4	39.7	39.9	40.1	40.3

Source: UN, BMI

Demographics Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f	2033f
Urban population total, % of total population	82.1	82.3	82.5	82.7	82.9	83.1	83.3	83.5	83.7	84.0	84.2	84.4	84.6	84.9	85.1	85.3	85.5
Rural population total, % of total population	17.9	17.7	17.5	17.3	17.1	16.9	16.7	16.5	16.3	16.0	15.8	15.6	15.4	15.1	14.9	14.7	14.5
Life expectancy at birth, male, years	76.3	76.5	76.6	74.6	74.3	75.5	77.3	77.5	77.6	77.8	78.0	78.1	78.3	78.5	78.7	78.9	79.0
Life expectancy at birth, female, years	81.4	81.5	81.7	80.3	80.2	81.0	82.2	82.4	82.5	82.6	82.8	82.9	83.0	83.1	83.3	83.4	83.5
Live births, mn	3.87	3.80	3.76	3.67	3.72	3.73	3.75	3.76	3.78	3.80	3.81	3.83	3.84	3.86	3.87	3.89	3.92
Total fertility rate, children per woman	1.8	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Deaths, mn	2.77	2.78	2.78	3.24	3.28	3.14	2.91	2.96	3.00	3.05	3.09	3.14	3.19	3.24	3.29	3.34	3.39
Infant mortality per 1,000 live births	5.7	5.6	5.5	5.5	5.4	5.0	4.9	4.8	4.6	4.5	4.4	4.3	4.1	4.0	3.9	3.8	3.7
Under five-year-old mortality per 1,000	6.7	6.5	6.5	6.4	6.3	5.9	5.8	5.7	5.5	5.4	5.2	5.1	5.0	4.8	4.7	4.6	4.5

Source: UN, BMI

8

Methodology And Glossary

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Methodology

Connected Thinking

Our unique approach to healthcare analysis and forecasting integrates deep industry expertise and cross-sector knowledge with macroeconomic variables and political risk assessments.

Sources Of Information

BMI uses multiple sources of qualitative and quantitative information to get a comprehensive and balanced view of the healthcare market. We use local sources such as the ministry of health, the ministry of finance and the statistics agency. To support comparisons across markets, we use international institutions such as the World Health Organization (WHO), the World Bank and Eurostat.

Other sources of information include private healthcare providers, medical academic researchers and local news sources. We use historical sources and forecast political, macroeconomic and demographic information, where indicated, from BMI. We have attempted to provide full coverage of key healthcare indicators for all markets, but some datasets are not made available by the primary sources.

Healthcare Forecasting

The models used for healthcare projections are produced by a dedicated quantitative modelling team. Our models use demographic, macroeconomic and public health projections from our specialist Country Risk and Industry research teams, using our 'Connected Thinking' methodology to account for quantitative drivers across multiple industries both domestically and internationally. Proprietary econometric models and inputs are adjusted based on rigorous statistical testing and accuracy tracking to ensure models are as statistically sound as possible.

Following the generation of quantitative projections by the forecast models, analysts occasionally make adjustments to the results. Using their expert knowledge of the healthcare industry, the analysts amend growth rates, taking into account factors that have demonstrated influence on particular data indicators in the past. These factors include, among others, new regulations and changes to the competitive environment.

To reinforce the quality of the forecasts, the datasets are scrutinised regularly, through processes such as analyst peer review, regional/global evaluations and identification of datapoint outliers. At minimum, every data forecast is updated annually; larger markets and those with fluctuating macroeconomic variables are updated more frequently.

Glossary

Health Expenditure: The sum of funds mobilised by government and private systems for the operation of a healthcare system. It includes the purchase of healthcare services and goods by public entities such as ministries and social security institutions; or by private entities such as non-profit institutions, commercial insurance and households acting as complementary funders to the previously cited institutions or unilaterally disbursing health commodities. The revenue base of these entities varies by market.

Government Health Expenditure: The sum of outlays for health maintenance, restoration or enhancement paid by government entities such as a ministry of health, other ministries, parastatal organisations and social security agencies, including transfer payments to households to offset medical care costs and extra budgetary funds to finance healthcare provision.

Private Health Expenditure: The sum of outlays for health by private entities such as commercial or mutual health insurance, households, non-profit institutions serving households, resident corporations and quasi-corporations not controlled by governments.

Hospitals: All institutions that are built, staffed and equipped for the diagnosis of disease; for the treatment, both medical and surgical, of the sick and the injured; and for their housing during this process. They operate for 24 hours. Two types of patients can be treated in the hospital: outpatients and inpatients.

Public Hospitals: All hospitals owned by the government or ministry of health in the market (including public specialist, general and day hospitals).

Private Hospitals: All non-government owned hospitals (includes philanthropic, private and union specialist, general and day hospitals).

Hospital Beds: All beds specially designed for hospitalised patients or others in need of some form of healthcare, which are regularly maintained and staffed and immediately available for the care of admitted patients.

Public Hospital Beds: All hospital beds in public hospitals.

Private Hospital Beds: All hospital beds in private hospitals.

Bed Occupancy Rate: Daily percentage of beds occupied by patients, averaged over a specified year.

Glossary

Average Length Of Stay: Average length of stay is computed by dividing the number of days stayed (from the date of admission in an in-patient institution) by the number of discharges (including deaths) during the year.

Inpatient Admissions: A person who is formally admitted to a healthcare facility and who is discharged after one or more days.

Surgical Procedures: All medical procedures involving an incision with instruments; performed to repair damage or arrest disease in a living body and is performed with an overnight stay in an in-patient institution.

Outpatient Visits: A person who goes to a healthcare facility for a consultation but is not formally admitted to the facility.

Physicians: All graduates of any faculty or school of medicine, actively practising medicine in the market.

Public Physicians: The number of physicians, general practitioners and specialists who are actively practising medicine in public institutions.

Private Physicians: The number of physicians, general practitioners and specialists (including self-employed) who are actively practising medicine in private institutions.

Nurses: All persons who have completed a programme of basic nursing education and are qualified and registered or authorised to provide responsible and competent service for the promotion of health, prevention of illness, the care of the sick, and rehabilitation, and are actually working in a particular market.

Public Nurses: The total number of nurses certified/registered and actively practising in public hospitals, clinics and other health facilities.

Private Nurses: The total number of nurses certified/registered and actively practising in private hospitals, clinics and other health facilities, including the self-employed.

Dentists: All graduates of any faculty or school of dentistry, odontology or stomatology, actually working in the market in any dental field.

Public Dentists: The total number of dentists actively practising in public hospitals, clinics and other health facilities.

Glossary

Private Dentists: The total number of dentists actively practising in private hospitals, clinics and other health facilities, including the self-employed.

Pharmacists: All graduates of any faculty or school of pharmacy, actually working in the market in pharmacies, hospitals, laboratories, industry, etc.

Public Pharmacists: The total number of pharmacists actively practising in public hospitals, clinics and other health facilities.

Private Pharmacists: The total number of pharmacists actively practising in private hospitals, clinics and other health facilities, including the self-employed.

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