

# The 2024 US healthcare market report

Challenges of inflation on increasing healthcare costs

By Maura D. Garvey



Inflation has had a profound impact on all areas of the economy, including healthcare. Even as signs indicate that inflation is slowing, medical costs are growing. Inflation and affordability are expected to have a major impact on the healthcare industry. This puts healthcare organizations in a difficult spot because overall inflation is growing at about 6% to 8%, according to the Bureau of Labor Statistics, and healthcare costs are rising at a much lower rate, about 5%. This has left many healthcare organizations struggling to make ends meet as wage inflation and higher supply costs, including medical gases, have squeezed hospitals and health systems financially.

For 2025–31, US national health spending is projected to increase at an average rate of 5.6%, higher than the average growth rate of 4.2% projected for GDP. This is partly as a result of faster projected average growth in medical prices (2.8%) compared with economywide price growth (2.1%).

We last reported on the US healthcare market in February 2023 (see “Healthcare market report” *gasworld US Edition*, February 2023, p. 46). And what a difference a year makes. We also reported how diligently our industry has supported the healthcare system through the pandemic, ensuring hospitals received the therapeutic oxygen required to treat Covid-19 patients. Our industry also supported the medical gas systems and their design as they are critical to the life support of patients served. Major industrial gas companies continue to prioritize the supply of oxygen and the essential medical gases to support

“One of the most significant factors driving growth for gas is more specialization within the space”

hospitals and medical professionals by proactively working to understand and meet medical gas supply needs.

### Medical gases

Medical gases are an essential component to the operations for the healthcare industry. From hospitals, clinics, homecare, nursing homes, pharmaceutical facilities, and ambulances to dental offices and veterinary offices, medical-grade gas supply is essential. Many types of gases are used in hospitals, healthcare facilities, and other medical settings, and the most common types include medical air, oxygen, carbon dioxide, nitrogen, and nitrous oxide. Oxygen is the most commonly used medical gas but oxygen isn’t the only type of medical gas in demand. Carbon dioxide, nitrogen, nitrous oxide, and helium are also in high demand.

The medical gas sector is growing rapidly, which we attribute to changes and trends in the larger medical space. One of the most significant factors driving growth for gas is more specialization within the space. For example, there is a growing number of specialized clinics, with continued demand for outpatient healthcare services. In some cases, this means more demand for medical-grade gas, which is helping to grow the sector. This also presents new business growth opportunities for suppliers as more organizations are looking for medical-grade gas.

Consolidation efforts for veterinary and dental care providers is also taking place within the industry. Consolidation of dental organizations has ramped up significantly in the last few years, including by private equity. In addition, larger well-known veterinary offices continue to drive consolidation by acquiring and partnering with other care providers.

Hospitals, homecare, out-patient

surgical care facilities, nursing homes, and ambulances all provide medical care while industrial gas companies support the healthcare field by providing life-giving gases to support medical care. Medical gases also serve a vast array of gases sold to pharmaceutical and biotechnology companies. Today’s healthcare market goes beyond these traditional market definitions and includes an array of new gases, related equipment, and healthcare technologies, including a broadening of the fast-growing respiratory therapy market and cryotherapy.

A wide assortment of medical and specialty gases, supplied from different sources, and often requiring very high purity and sophisticated equipment, are used in healthcare markets. Air gases are produced in ASUs or with generators. Of these, oxygen is used widely for respiratory care both in institutions and in homecare settings. Nitrogen is used in biomedical applications for freezing specimens, and argon is used pure and in mixtures for hospital analyses and quality control. Carbon dioxide, sourced as a by-product from other product processes such as ethanol, ammonia, and refining, is used in surgical procedures. And helium, which is sourced primarily from natural gas streams, is used to cool the magnets in magnetic resonance imaging (MRI) machines and other equipment, for hospital analyses and quality control, and in respiratory gas mixtures.

**Oxygen** is the most used medical gas. It is used in trauma situations and surgeries. It aids respiratory conditions including chronic obstructive pulmonary disease (COPD), asthma, and pneumonia. For medical research purposes, it is usually used in incubators and bioreactors.

**Medical grade nitrogen** helps freeze and preserve a wide range of biological samples, such as blood, bone marrow, and tissues. It can also eliminate ▶

US healthcare (HC) spending as percent of GDP 2018 – 2023 (est)  
US (\$trillion)

Item	2018	2019	2020	2021	2022	2023 est.
GDP (Real)	20.5	21.4	21.1	23.3	25.5	26.5
Total HC expenditures	3.6	3.8	4.1	4.3	4.4	4.7
Percent spent on HC	17.8%	17.8%	19.4%	18.4%	17.4%	17.6%

FIGURE 1. Source: CMS, US BEA, and Intelligas Consulting estimates

▶ infected tissues and is therefore used in dermatology and cryosurgery procedures.

**Nitrous oxide**, known as the “laughing gas,” is most commonly used as an analgesic and an anesthetic during dental surgery. It may function as a pain medication and, when used with other medications, as anesthesia.

**Carbon dioxide** is typically used as an insufflation gas for minimal invasive surgery, such as laparoscopy, endoscopy, and arthroscopy, to enlarge and stabilize body cavities for better visibility of the surgical field. It can also be used by patients as a respiratory stimulant before and after their anesthesia is administered. Carbon dioxide also aids cell growth. It is essential for regulating the pH of the culture media, as it acts as a buffer to maintain the pH within the physiological range for the cells to grow.

**Helium** is medically used when a patient needs higher oxygen intake due to asthma and other conditions that may cause upper airway obstruction. This type of gas has a low boiling point. Other

than medical gas purposes, helium is commonly used in its liquid form to cool down NMR and MRI magnets.

The US spends more on healthcare as a percentage of real GDP than any other country. By working strategically and tactically within medical market segments, the industrial gas industry has been able to tap into this market with expanded product and service offerings, even in recessionary years. A look at the industrial gas industry’s past year of activities in medical markets reveals continued growth in 2023.

**US healthcare industry trends**

Healthcare expenditures for 2023 included all costs for private and public health services and supplies and investment in research, structures, and support. The US spends almost twice as much per person (\$13,998 per person in 2023) and devotes 50% more of its gross domestic product (GDP) than the other major industrialized countries, according to the Organization for Economic Co-operation and Development (OECD).

According to Centers for Medicare and Medicaid Services (CMS) estimates, hospital care (31%), physician and clinical services (20%), home healthcare and nursing care facilities (7%), and prescription drugs (9%) comprise 67% of total US healthcare spending. Healthcare spending by major sources of funds includes private health insurance (29%), Medicare (21%), Medicaid (17%), and “out-of-pocket” (10%).

As shown in figures 1 and 2, US healthcare spending is estimated to have increased 5.1% to reach \$4.7 trillion in 2023: a much faster rate than the 4.3% increase seen in 2022. The acceleration in 2022 was due to the continued increase in federal expenditures for healthcare that occurred largely in response to Covid-19. At the same time, GDP increased 8.1%, and the share of the economy devoted to healthcare spending declined from 19% in 2020, reaching an estimated 17.6% in 2023. Growth in national health spending has always been positive and greater than economy-wide inflation. ▶

Percent growth total US HC expenditures  
2018 – 2022 and estimated 2022 – 2031

Item	2018	2019	2020	2021	2022	2023 est.	2022 – 2031 est.
Growth/year	4.6%	4.2%	10.3%	2.7%	4.3%	5.1%	5.4%

FIGURE 2. Source: CMS estimates



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US industrial gases HC as percent of total HC 2018 – 2023 (est)  
US (\$billion)

Item	2018	2019	2020	2021	2022	2023 est.
Total US industrial gas HC	2.8	2.9	3.0	3.1	3.2	3.3
IG% total HC expenditures	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

FIGURE 3. Source: CMS and Intelligas Consulting estimates

▶ According to CMS, national health expenditures are projected to grow at an average annual rate of 5.4% for 2022–31 and reach \$7.2 trillion by 2031. Because national healthcare expenditures are expected to grow 0.8 percentage points higher than GDP per year, the share of the economy will rise to 19.6% in 2031.

The outlook for national health spending and enrollment over the next decade is expected to be driven primarily by key economic factors, such as growth in income and employment, and demographic factors, such as the baby-boom generation continuing to age from private insurance into Medicare; and increases in prices for medical goods and services.

As shown in figure 3, Intelligas Consulting estimates the US healthcare business, including our industry’s participation in both the institutional, homecare, and specialized services segment in the US, to be \$3.3bn in 2023. The estimated value of the business includes the traditional institutional gases and services as well as homecare services in which the companies in our industry participate. Medical equipment is not included.

The industrial gas industry’s position in US markets has been growing in some areas such as pharmaceutical and biotechnology but has been slower in other traditional medical uses. Industry organizations like the Gases and Welding Distributors Association (GAWDA) and the Compressed

Gas Association (CGA) are helping distributors and manufacturers to establish strategies that help this industry grow.

#### Industrial gas player trends

The US industrial gas healthcare market represents an estimated 12% of the US industrial gas business and is estimated at \$3.3bn in 2023 compared with \$2.8bn in 2018, indicating an average annual growth of 3.3%. The estimated value of the business includes the traditional institutional gases and services as well as homecare services of in which some in our industry participate, such as Linde, which owns Lincare. It excludes homecare service providers outside our industry such as Apria. Our industry plays a lesser role in the healthcare business in the US than in the rest of the world because of the highly specialized and costly nature of the US healthcare business.

Within the US healthcare market, the two industrial gas companies with the largest participation are Linde plc and Air Liquide. Linde’s strategic acquisition of Lincare and merger with Praxair with PDI in 2019, has kept it in the top position with a share that is over 10% greater than Air Liquide. Air Liquide’s acquisition of Airgas in 2016 moved it from the number four player to the number two sales position in the US. Messer and Air Products each have healthcare market shares in the range of 12% to 14% and Matheson’s share is

about 5%. All industrial gas companies are suppliers of bulk gases in the US institutional market as well as high pressure cylinders into secondary care facilities.

The US is also home to large and growing biotechnology and pharmaceutical markets, and distributors are looking at these segments for continued growth and investment. Many US distributors have deep penetration in US medical markets.

#### Looking ahead

The healthcare market represented an estimated 12% of the US industrial gas business in 2023, or \$3.3bn. It is a core segment for industrial gas companies and distributors in the US. As we come out on the other side of this pandemic, US spending on traditional medical gases will be steady, but controlling cost will be hampered by inflation. We expect that growth of gases will be faster in the pharmaceutical and biotechnology markets. The overall growth of the healthcare market in the industrial gas will remain strong. [gw](#)

#### ABOUT THE AUTHOR

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