

2024 Environmental Scan



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Welcome to the 2024 Environmental Scan

At the AHA, we tell the hospital story. Whether it is to policymakers, the media or the public, we show the healing and the hope, the caring and the compassion that you bring each day to the patients and communities you serve.

We tell the story through data and research, serving as a trusted source and a respected voice for the past 125 years. The 2024 AHA Environmental Scan is a valuable tool, containing data, surveys, trends and thought leadership that illustrates our most pressing issues.

We tell the story by capturing the current state of the field. 2023 saw modest improvements in hospital and health system finances, yet sky-high expenses, cuts in Medicaid enrollment, and commercial insurer practices that delay and deny patient care loom large as barriers on the road to recovery and sustainability. Moody's Investors Service has indicated that the "budgetary aftershocks from COVID-driven labor stresses will reverberate for years to come, suppressing operating results through at least 2024."

We tell the story by spotlighting emerging trends, providing a glimpse into a reimagined future for our field. It is a future that redefines the "H" to provide care outside of the hospital walls. It is a future with a greater focus on prevention



RICK POLLACK

President and CEO
American Hospital
Association

Wider adoption of AI could lead to savings of 5% to 10% in U.S. health care spending—\$200 billion to \$360 billion annually.

and wellness. It is a future where we more fully meet the challenges of an aging population and growing rates of chronic disease.

We tell the story by highlighting innovation, how hospitals and health systems are harnessing new technologies to improve quality and safety and the patient care experience. Artificial intelligence is featured throughout the report, noting the possibility of improving operational efficiency and consumer engagement. Wider adoption of AI could lead to savings of 5% to 10% in U.S. health care spending — \$200 billion to \$360 billion annually. As much as 30% of nurses' tasks could potentially be shifted to automation, which could help alleviate the nursing shortage and allow them to devote more time to caring for patients.

We hope you find the 2024 AHA Environmental Scan a valuable resource in your strategic planning, guiding you and your colleagues across the nation in building the future of health care. We can all take great pride in knowing that every day, all across the country, the women and men of America's hospitals and health systems continue to strengthen their ability to carry out the sacred mission to always be there, ready to care for the patients and communities they serve.

Thank you for all that you do.

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Hospital and Health System Landscape

Financial Stability

After three years of unprecedented challenges and caring for millions of patients, America's hospitals and health systems are facing a new existential challenge — sustained and significant increases in the costs required to care for patients and communities, putting their financial stability at risk. A confluence of several factors from historic inflation, which is driving up the cost of medical supplies and equipment, to critical workforce shortages, led to 2022 being the most financially challenging year for hospitals since the pandemic began.

During 2023, hospitals experienced some improvement in financial health. While the median hospital operating margin increased slightly to just barely breakeven, expenses remain high. Additional challenges include Medicaid disenrollment and commercial insurer denials and delayed payments, impacting hospitals' cash on hand.

While the challenging environment affects all types of hospitals in all locations, rural hospitals and health systems face many longstanding pressures, including low reimbursement, staffing shortages, low patient volume, a sicker patient population and regulatory barriers. One in five Americans live in rural areas and rely on their hospital not only for care, but also as a critical component of their area's economic and social fabric.

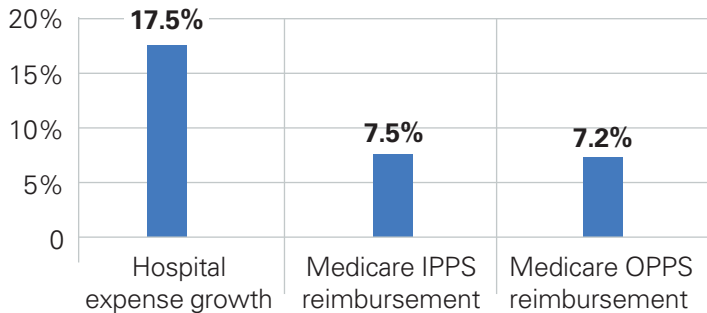
The combination of the impacts of ending a public health emergency as well as continued expense growth has created an uncertain future for hospitals and health systems. Hospitals and health systems must have economic stability to continue to provide vital care to communities across the nation.



Recent History

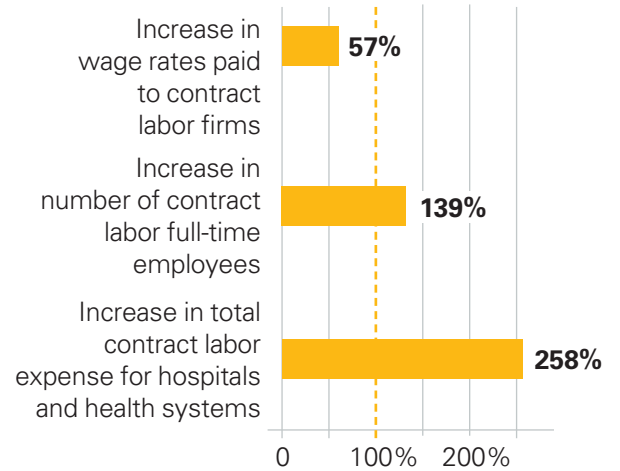
Expense growth more than 2X Medicare reimbursement

Cumulative hospital expense growth more than doubled the cumulative increase in Medicare inpatient and outpatient reimbursement, 2019-2022



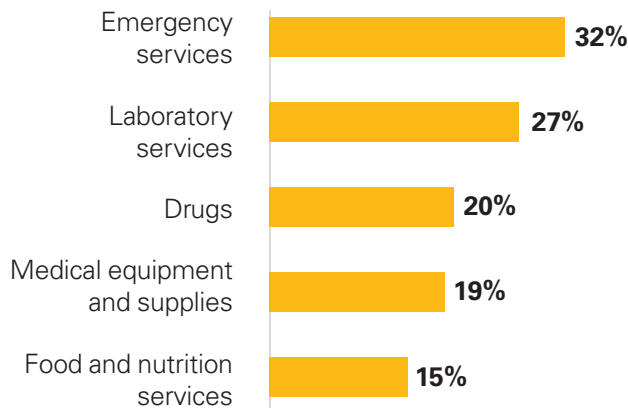
IPPS: Inpatient prospective payment system
OPPS: Outpatient prospective payment system

Contract labor expenses skyrocketed, 2019-2022



"The Financial Stability of America's Hospitals and Health Systems Is at Risk as the Costs of Caring Continue to Rise," American Hospital Association (AHA), April 2023
"Proposals to Reduce Medicare Payments Would Jeopardize Access to Essential Care and Services for Patients," AHA, June 2023

Expense increases per patient, 2019-2022



"The Financial Stability of America's Hospitals and Health Systems Is at Risk as the Costs of Caring Continue to Rise," AHA, April 2023

Average length of stay (ALOS) increase, 2019-2022



Overall ALOS increase

19%



ALOS increase for patients discharged to post-acute care providers

24%

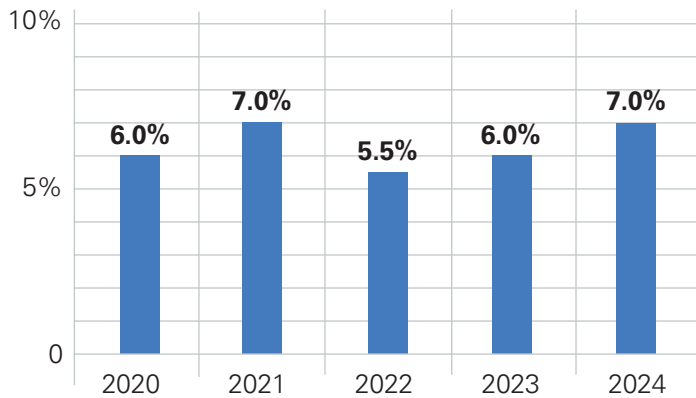


"Issue Brief: Patients and Providers Faced with Increasing Delays in Timely Discharges," AHA, Dec. 2022

MEDICAL COST TREND

The medical cost trend, or growth rate, is influenced primarily by changes in the price of medical products and services and prescription medications, known as unit cost inflation, and changes in the number or intensity of services used or changes in per capita utilization.

Projected % increase in the cost to treat patients

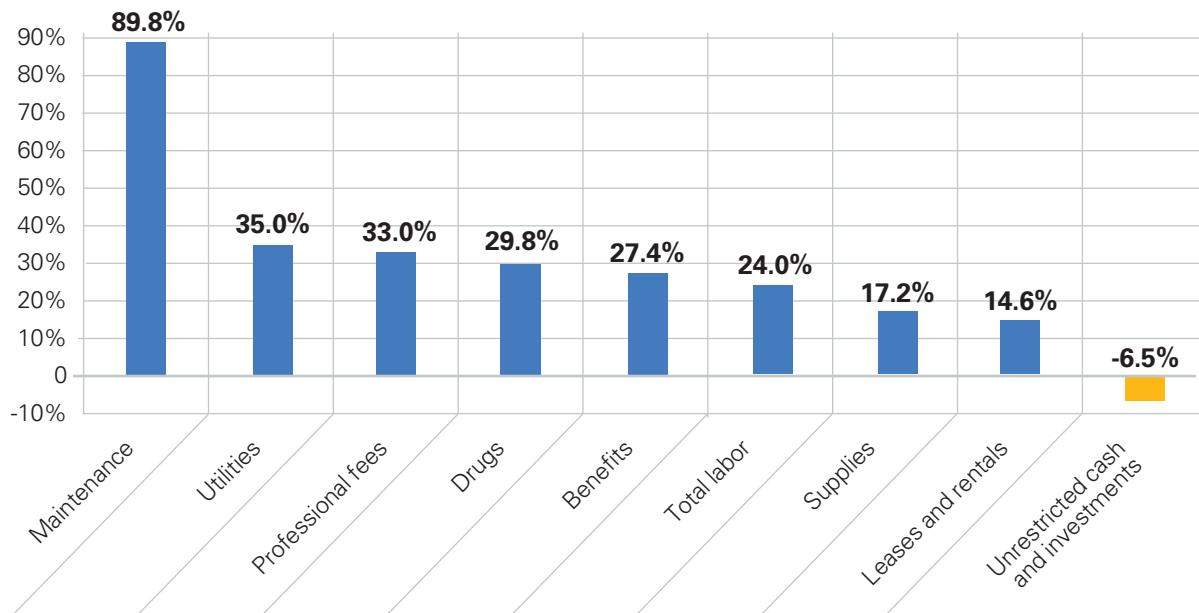


2024 projection

- **Inflators:** Clinical workforce shortages, inflationary impacts on health care providers, the increasing cost of pharmaceuticals including weight-loss drugs and new cell and gene therapies.
- **Deflators:** Biosimilars coming to market and the shift in site of care.
- **Trends to watch:** Total cost of care management initiatives such as value-based care, changing COVID-19 policies and the need for vaccines, testing and treatment, health equity, behavioral health, the Centers for Medicare & Medicaid Services (CMS) Hospital Price Transparency Final Rule and Medicaid redetermination.

"Medical cost trend: Behind the numbers 2024," PwC Health Research Institute, June 2023, © PwC. Not for further distribution without the prior written permission of PwC, June 29, 2023

Health systems' expenses increase and cash reserves decline, Jan. 2022-July 2023



"Hospital Vitals: Financial and Operational Trends," Syntellis and AHA, November 2023

Current Pulse

Financial challenges

- More than half of hospitals ended 2022 operating at a financial loss.
- The first quarter of 2023 saw the highest number of bond defaults among hospitals in more than a decade.

"The Financial Stability of America's Hospitals and Health Systems Is at Risk as the Costs of Caring Continue to Rise," AHA, April 2023

Chief financial officers (CFOs) losing sleep over workforce shortages

Asked which issues keep them up at night, hospital CFOs reported their top concerns:



"2023 CFO Outlook for Healthcare," Syntellis, Feb. 8, 2023

Supply chain challenges continue: Top challenges cited by leaders



"The State of Hospital Purchasing," Owens & Minor, Aug. 31, 2022

Administrative burden

Administrative costs constitute as much as **31%** of total health care spending. Of these expenses:

- **82%** is attributed to billing and insurance.

"The Financial Stability of America's Hospitals and Health Systems Is at Risk as the Costs of Caring Continue to Rise," AHA, April 2023

AHA members report challenges with commercial health insurer practices

Challenge	% of respondents
Increase in staff time spent seeking prior authorization approval	95%
Increasing cost of complying with insurer policies	84%
Worsening experience with commercial insurers	78%
Oldest Medicare Advantage claim dates to 2016 or older	55%
\$50M+ in forgone payments because of denied claims once appeals have been exhausted	35%

- **62% of prior authorization denials** and **50% of initial claim denials** that are appealed ultimately **are overturned**.

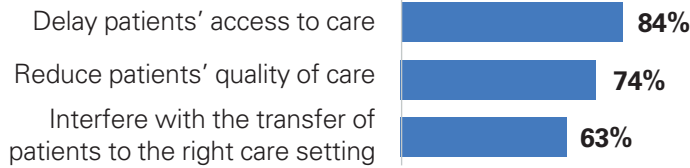
"Survey: Commercial Health Insurance Practices that Delay Care, Increase Costs" infographic, AHA, Nov. 2, 2022

Hospital and Health System Landscape

Financial Stability

Nurses and physicians report health insurer policies are a barrier to patient care

Nurses report insurers' administrative requirements:



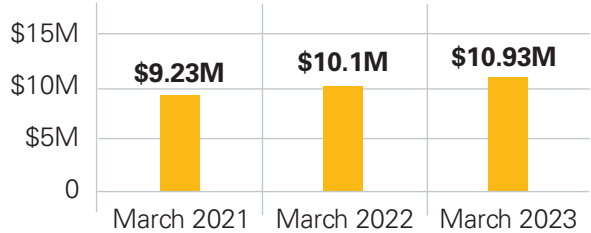
Physicians report insurers' administrative requirements:



"New Polls of Nurses and Physicians Find the Majority Say That Health Insurer Policies Are a Barrier to Care: Infographic," Morning Consult and AHA, July 2023

CYBERSECURITY

Average cost of a health care data breach in the U.S.



- For 13 consecutive years, health care had the highest industry cost per breach.

"Cost of a Data Breach Report 2023," IBM Security and Ponemon Institute LLC, July 2023

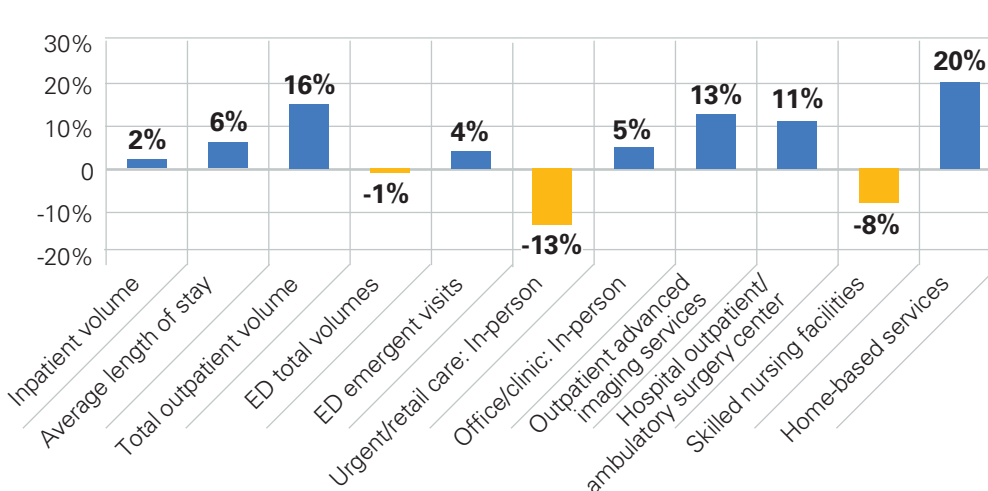
Technology, Innovation and Future Outlook

Credit rating agencies foresee continuing challenges for hospitals

- Moody's Investors Service predicts that budgetary aftershocks from COVID-driven labor stresses will reverberate for years to come, suppressing operating results through at least 2024.
- Fitch Ratings reports that "longer-term industry dynamics continue to suggest protracted margin compression compared to historical trends as additional expenses, primarily labor, remain elevated."

Hut, Nick. "The latest on hospital finances: Signs of improvement, but margins remain tight," Healthcare Financial Management Association, July 27, 2023

2023 Forecast: Care in alternative settings on the rise



- 28% of evaluation and management visits will occur virtually by 2033.
- As the population continues to age and chronic disease incidence rises, there will be increased demand across many sites of care.
- Patient acuity will continue to rise.
- Care redesign will be critical to prevent the acute exacerbation of medical conditions.

Data from "2023 Impact of Change® Forecast Highlights," Sg2, a Vizient company, accessed Aug. 8, 2023. Used with permission of Vizient, Inc. All rights reserved. Impact of Change®, 2023; HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP) 2019. Agency for Healthcare Research and Quality, Rockville, MD; Proprietary Sg2 All-Payer Claims Data Set, 2021; The following 2021 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2023; Sg2 Analysis, 2023

Hospital and Health System Landscape

Financial Stability

Potential of generative artificial intelligence (AI) to alleviate administrative burden throughout patient journey

Stage of patient journey	Potential use cases of generative AI
Beginning	Identify duplicate patient records, automate eligibility determination based on payer policies and contracts, coordinate prior authorizations from health insurance companies and propose solutions to address any administrative gaps identified.
Midcycle	Improve clinical documentation accuracy and limit clinicians' time spent on time-consuming recordkeeping.
End	Support accounts receivable with automated follow-ups and structure fact-based appeals to health insurers incorporating historical insurer performance, policy manuals and contracted terms.

Baxi, Sanjiv, Parikh, Sagar, Peterson, Michael and Ray, Andrew. "Setting the revenue cycle up for success in automation and AI," McKinsey & Company, July 25, 2023



The economic burden of racial, ethnic and educational health disparities in the U.S.

\$451 Racial and ethnic group health disparities **\$1,337** **2%** **\$978** Educational level health disparities **\$2,988** **5%**
BILLION **PER PERSON** **GDP** **BILLION** **PER PERSON** **GDP**

GDP=Gross domestic product

"The Economic Burden of Racial, Ethnic, and Educational Health Disparities in the U.S., 2018," National Institute on Minority Health and Health Disparities, Department of Health & Human Services (HHS), May 23, 2023



Increased cost for individuals with comorbid physical and behavioral conditions

- Research shows total health care costs are 75% higher for people with both behavioral health and other common chronic conditions, such as diabetes and cardiovascular disease.

"Integrating Physical and Behavioral Health: The Time is Now," AHA, September 2023

OPIOID-USE DISORDERS

Hospital expenses related to opioid-use disorders (OUDs)[†]

- **\$95 billion** per year
- **7.9%** of hospital spending

Patients with an OUD diagnosis compared with those without[†]

- **32.5%** higher cost per emergency department (ED) visit
- **8%** higher cost per inpatient visit

Opioid-involved drug overdose deaths in the U.S.[‡]

- 2021: **82,310***
- 2022: **83,894***
- **1.9%** increase

*Predicted number of deaths for the 12-month period

[†]Bailey, Victoria. "Caring for Opioid Use Disorder Patients Costs Hospitals \$95B Per Year," RevCycle Intelligence, Jan. 25, 2023

[‡]"Provisional Drug Overdose Death Counts," Centers for Disease Control and Prevention (CDC) National Center for Health Statistics, <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>, accessed Oct. 24, 2023



Rural hospital closures in the U.S. (as of October 2023)

- **25 closures and conversions in 2023**
 - **16** Rural Emergency Hospital conversions
 - **2** conversions to other services
 - **7** complete closures
- More than 3 times as many hospitals closed in 2022 compared with 2021
- **166 closures and conversions since 2010**
 - **16** Rural Emergency Hospital conversions
 - **69** conversions to other services
 - **81** complete closures

"197 Rural Hospital Closures since January 2005," The Cecil G. Sheps Center for Health Services Research, <https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures>, accessed Oct. 24, 2023

Impact of rural hospital closures

- Travel time for patients increases, and access to care is challenging.
- Low-income and elderly patients are more likely to delay or forgo needed care.
- Health care professionals leave the area.
- The mortality rate in the community increases.
- The local economy declines.*

"Issue Brief: Medicaid and Rural Health," Medicaid and CHIP Payment and Access Commission, April 2021

*Malone, Tyler L. et al. "The economic effects of rural hospital closures," Health Serv Res., 2022;57(3):614-623, <https://doi.org/10.1111/1475-6773.13965>, March 21, 2022

The Rural Emergency Hospital (REH)

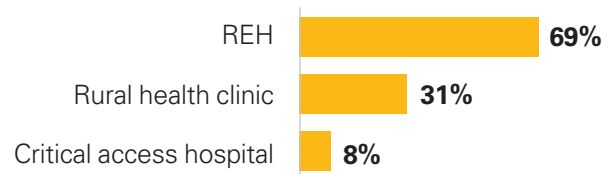
Launched in January 2023, Congress created the REH, a new type of Medicare provider, as a response to the loss of emergency services in rural areas due to hospital closures. The REH does not provide inpatient care but will provide 24-hour emergency services. An analysis shows:

- **389** rural hospitals are most likely to consider REH conversion.
- **77** hospitals are ideal candidates for REH conversion.

"Rural Health Safety Net Under Renewed Pressure as Pandemic Fades," Chartis, Feb. 7, 2023

Exploration of a different designation

- 13% of rural health care organizations are considering a different care designation or model of payment.
- Of these organizations, the following are models they are considering:



"The state of rural healthcare: Research report and outlook for 2023," Wipfli LLP, <https://www.wipfli.com/-/media/wipfli/collateral/hc-2023-wipfli-state-of-rural-healthcare-report.pdf>, Feb. 2, 2023

AHA RESOURCES

- **Advocacy Action Center:** Information and resources to help hospitals advocate for relief and recovery.
- **Fast Facts on U.S. Hospitals:** A series of infographics that provide an overview of hospitals and health systems.
- **Insurer Watch powered by AHA Vitality Index™:** An operational metrics dashboard designed to measure revenue flow.
- **Health Plan Accountability:** Resources including letters, statements, white papers, member updates and earned media.
- **Cybersecurity & Risk Advisory:** Learn more about how the AHA advises and assists the health care field in mitigating the many cyber risks it faces, and view threat intelligence and alerts.
- **Association for Health Care Resource & Materials Management (AHRMM):** A professional membership group of the AHA, AHRMM offers education, networking and advocacy for health care supply chain professionals.
- **Opioid Stewardship Hub:** Repository of information that provides ideas, insights and resources to inspire opioid stewardship.
- **Rural Health Services:** This AHA Section tracks issues, develops policies and identifies solutions to the most pressing problems facing rural hospitals through advocacy and representation, communication and education, executive leadership and other helpful resources.

AMERICAN HOSPITAL ASSOCIATION

Cybersecurity & Risk Advisory Services

AHA can help hospitals and health systems prepare for and mitigate cyber threats that can cripple operations and impact patient care.

View the latest news, resources and alerts at aha.org/cybersecurity

American Hospital Association
Advancing Health in America

The banner features a background image of two people in business attire working on a laptop. Overlaid on this are various digital security icons, including padlocks, a shield with a padlock, and a key, connected by a network of blue lines and nodes.



Workforce

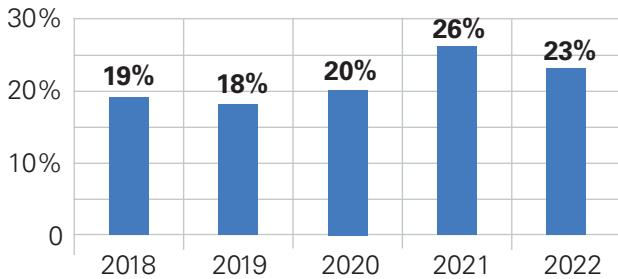
A talented, qualified, engaged and diverse workforce is at the heart of America's health care system. The effects of the pandemic have exacerbated long-standing challenges including burnout, administrative burden and workforce shortages. These challenges continue to threaten hospitals' ability to care for their patients and the communities they serve. The AHA and its members are committed to developing a new path forward to support and prepare our nation's health care workforce.

The AHA Board of Trustees' Workforce Task Force has been developing strategies to support the workforce today, prepare them for tomorrow and build a pathway for the future. Addressing workforce challenges must include a strengthened culture of healing, creative staffing, care model redesign, technology integration, restructured educational models and pathways, utilization of data and analytics, and more. The field must continue to innovate, as the demand for health care services will only continue to grow in the future.

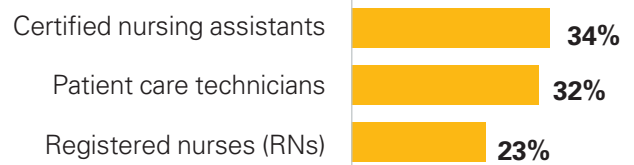


Recent History

Hospital staff turnover rate

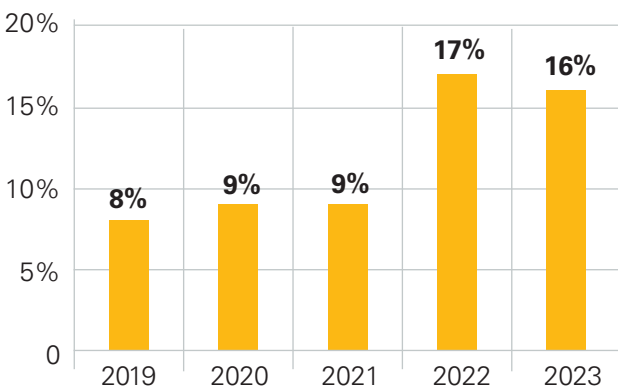


The top turnover rates for advanced practice and allied health professionals, 2022



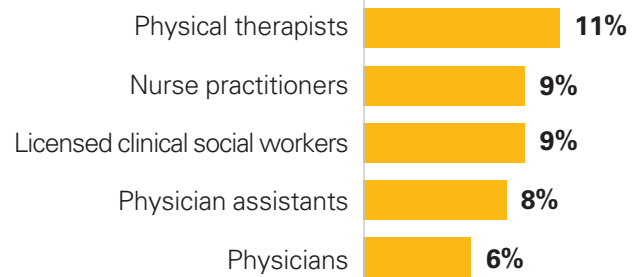
- Only pharmacists (0.6%) and physician assistants (2.8%) saw an increase in turnover from 2021.

Average RN vacancy rate



Providers leave the workforce, 2021-2022*

Percentage who left the workforce by provider type



- 145,213 U.S. health care providers left the profession.

*2023 NSI National Health Care Retention & RN Staffing Report, NSI Nursing Solutions Inc., March 2023

*"Addressing the healthcare staffing shortage," ©2023 Definitive Healthcare, LLC., All rights reserved, Oct. 16, 2023

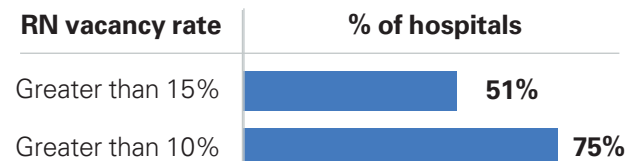
Current Pulse

Nursing shortage

- **100,000 RNs** left the workforce during the COVID-19 pandemic.
- **3.3% decline** in the U.S. nursing workforce in the past two years.
- **One-fifth of RNs** nationally are **projected to leave** the health care workforce by 2027.
- **34,000** licensed practical/vocational nurses (LPNs and LVNs) **left the workforce** since 2020, with **184,000** reporting **an intent to leave by 2027**.

"NCSBN Research Projects Significant Nursing Workforce Shortages and Crisis," National Council of State Boards of Nursing, April 13, 2023

Majority of hospitals experience high vacancy rates, 2023

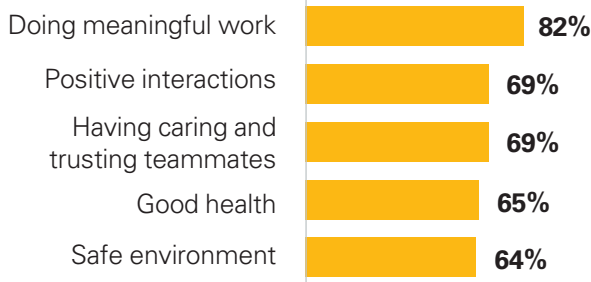


- It takes more than 3 months to recruit an experienced RN, with medical-surgical nursing presenting the greatest challenge.

"2023 NSI National Health Care Retention & RN Staffing Report," NSI Nursing Solutions Inc., March 2023

Workforce

Top factors influencing RNs to stay in current positions



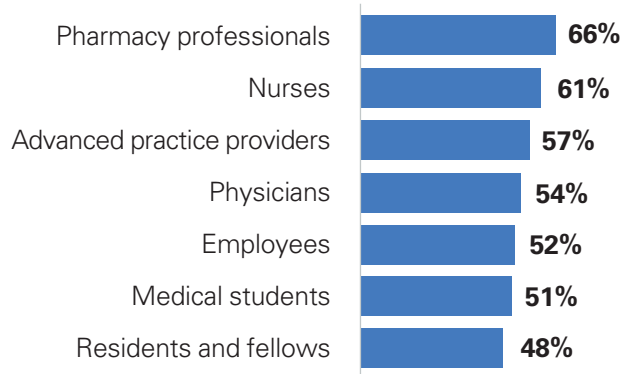
Top factors influencing RNs to leave jobs in the past 18 months



"Nursing in 2023: How hospitals are confronting shortages," McKinsey & Company, May 5, 2023

Burnout by occupation

Health care workers reporting burnout during the past month



Note: Data gathered from more than 118,000 Well-Being Index assessments taken in 2022

"State of Well-Being 2022-2023," Well-Being Index, <https://www.mywellbeingindex.org/insights>, 2023

Cost of clinician burnout in a midsize health system with 500 clinicians

- Productivity impact: **\$18.5M**
- Patient satisfaction impact: **14%**

Turnover costs

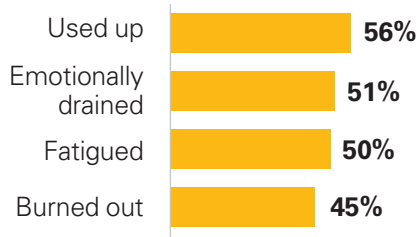
- Recruitment cost: **\$1.5M**
- Onboarding cost: **\$2.8M**
- Lost revenue multiplied by number of months to fill vacancy: **\$3.5M**

Total cost per year: \$20M+

Freeman, Richard B., Hu, Sisi (Xi) et al. "Beyond Burnout: From Measuring to Forecasting," National Bureau of Economic Research Working Paper Series, © January 2023

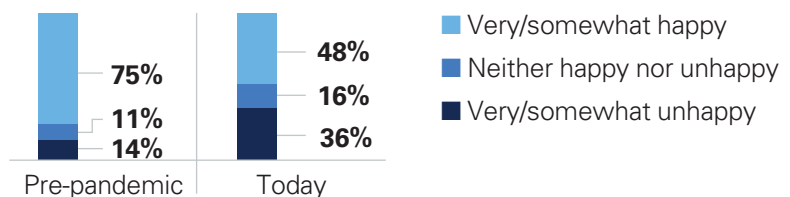
Nurses' emotional health

"A few times a week" or "every day", nurses reported feeling:



"NCSBN Research Projects Significant Nursing Workforce Shortages and Crisis," National Council of State Boards of Nursing, April 13, 2023

Physician happiness at work, pre-pandemic vs today*



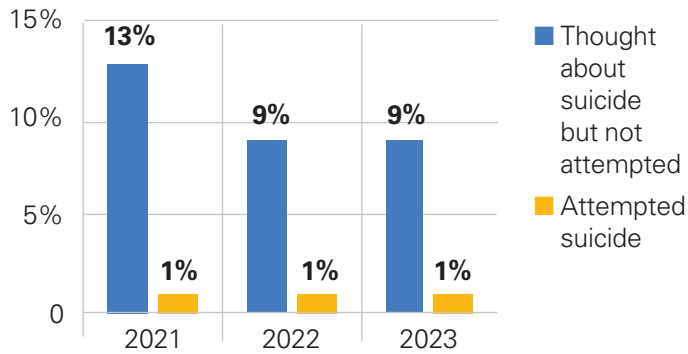
- 23% of physicians indicated they were depressed, an increase from the previous year (21%).[†]

*McKenna, Jon. "Medscape Physician Lifestyle & Happiness Report 2023: Contentment Amid Stress," Medscape, Jan. 20, 2023

†McKenna, Jon. "Doctors' Burden: Medscape Physician Suicide Report 2023," Medscape, March 3, 2023

Workforce

Physicians and suicide*



- The youngest generation of physicians was more likely than others to have thought about or attempted suicide.
- The top five specialties with the highest rates of doctors saying they had suicidal thoughts: otolaryngology (13%), psychiatry (12%), family medicine (12%), anesthesiology (12%), OB-GYN (12%) and emergency medicine (12%).

Health care workers are at a disproportionate risk of suicide

Factors include:†

- Difficult working conditions, such as long work hours, rotating and irregular shifts.
- Emotionally difficult situations with patients and their family members.
- Risk for exposure to infectious diseases and other hazards on the job, including workplace violence.
- Routine exposure to human suffering and death.
- Access to lethal means such as medications and knowledge about using them.

*McKenna, Jon. "Doctors' Burden: Medscape Physician Suicide Report 2023," Medscape, March 3, 2023

†Tiesman, Hope et al. "Suicide Prevention for Healthcare Workers," NIOSH Science Blog, CDC, Sept. 17, 2021

Technology, Innovation and Future Outlook

Health care employment growth: Projection 2022-2032

Position	Projected growth
Nurse anesthetists, midwives and practitioners	38%
Physician assistants	27%
Home health and personal care aides	22%
Health information technologists and medical registrars	16%
Medical assistants	14%
Respiratory therapists	13%
Occupational therapists	12%
Registered nurses	6%
Licensed practical and vocational nurses	5%
Physicians and surgeons	3%
All occupations	3%

"Occupational Outlook Handbook," Bureau of Labor Statistics, Sept. 6, 2023. <https://www.bls.gov/ooh/healthcare/home.htm>

U.S. nursing shortage to increase by 2027

- Hospital RN vacancies could grow from around 150,000 full-time employees in 2022 to roughly 400,000 in 2027.
- Demand for RNs is expected to continue to grow at 2-2.5% per year through 2027.
- Considering that RN training capacity is constrained and recent surveys suggest a sustained elevation in intent to leave the profession, it is likely that RN population growth will continue to be outpaced by demand growth.

Clark, Todd et al. "The US Nursing Shortage: The Gap Could Reach 400K Hospital RN FTEs in 2027," L.E.K. Consulting, Aug. 28, 2023

Human-machine mindset could alleviate nursing shortages

The challenge facing health care is not just a workforce issue, it is a work issue. Organizations need to rethink the work being done by nurses, divide tasks between nurses and technology that augments human capacity and reconsider what work is like when humans and machines work together.

- Health care has both a demand and a supply problem. The shortage challenge cannot be solved solely by relying on traditional methods such as recruiting, hiring, retention bonuses and flexible scheduling.
- By introducing technology, reallocating tasks and remodeling nursing jobs, nurses can devote more time to patient care.
- As much as **30% of nurses' tasks** can be shifted to automation.
- Population of those 65 years and older, the highest utilizers of health care services
 - **2020: 56M**
 - **2040: 81M**
 - Increase of **44%**

Safavi, Kaveh and O'Neal, Maureen. "The Future of Work: A Human and Machine Mindset," Nurse Leader, <https://doi.org/10.1016/j.mnl.2023.02.011>, August 2023

Virtual nurses increase

- **34% increase** in the number of virtual nursing programs in the U.S. in 2022.*
- One virtual nursing pilot program, using a collaborative team model, resulted in a **decrease of first-year turnover rates for RNs by 73%** and 55% for all staff.†

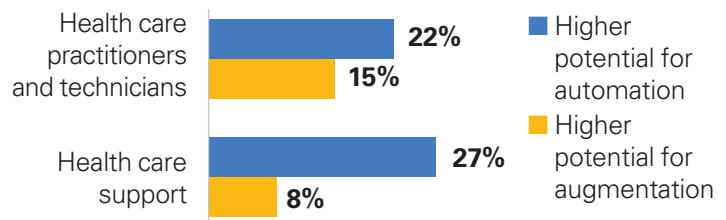
*Delaney, Melissa. "The Rise of the Virtual Nurse," HealthTech, Sept. 1, 2022

†"Covenant Medical Center, a Providence affiliate, revolutionizes the way nurses deliver care," Providence, June 6, 2023

Generative AI and the workforce

Generative AI will introduce a new dimension of human and AI collaboration in which most workers will have a "co-pilot."

Projected impact of generative AI on % of hours worked in health care



"A new era of generative AI for everyone," <https://www.accenture.com/us-en/insights/technology/generative-ai>, Accenture, March 22, 2023



Diversity, Equity and Inclusion (DEI) can improve retention

- Health care staff members who believe their employer doesn't value employees from different backgrounds were **4.3 times less likely** to intend to stay at their organization for the next three years and **4.6 times less likely** to intend to stay if offered a similar job elsewhere.
- Globally, **86%** of job candidates say DEI is important to them.

Gandhi, Tejal. "Why DEI in healthcare is central to employee retention," Press Ganey, Jan. 26, 2022

Diverse workforce improves outcomes

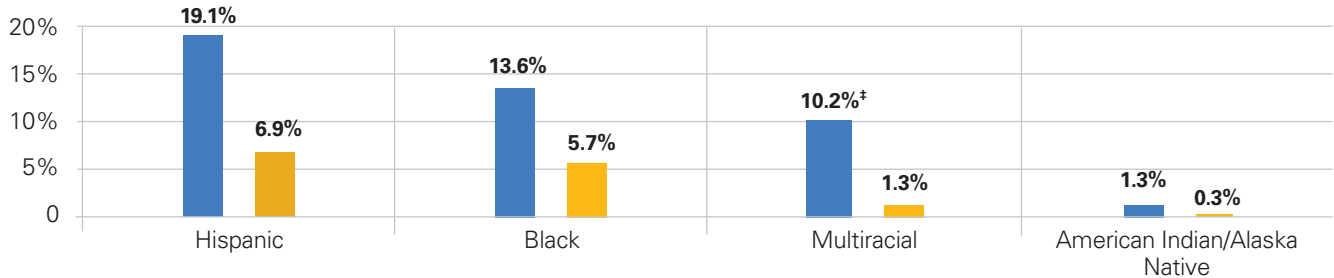
- Having more Black primary care physicians in each area is linked with **better survival-related outcomes** for the Black people who live there.
- More than one-half of all U.S. counties have **no Black primary care physician** working in them.

Heath, Sara. "Diverse Medical Workforce Improves Outcomes, But Diversity Is Still Rare," Patient Engagement HIT, April 18, 2023

Workforce

Physician representation does not match U.S. population

■ % of the U.S. population* ■ % of physicians†



*"QuickFacts," Census Bureau, <https://www.census.gov/quickfacts/fact/table/US/IPE120221>, accessed Aug. 16, 2023

†"What's your specialty? New data show the choices of America's doctors by gender, race, and age," Association of American Medical Colleges (AAMC), Jan. 12, 2023

‡"2020 Census Illuminates Racial and Ethnic Composition of the Country," Census Bureau, Aug. 12, 2021

FOCUS ON Behavioral Health

Mental health professional shortage areas, August 2023*

- **6,571** areas
- **163 million people** impacted
- **8,252 practitioners** needed to remove shortage designations



*"Health Workforce Shortage Areas," Health Resources and Services Administration (HRSA), HHS, <https://data.hrsa.gov/topics/health-workforce/shortage-areas>, accessed Aug. 7, 2023

†"Health Professional Shortage Areas: Mental Health, by County, May 2023," Rural Health Information Hub, <https://www.ruralhealthinfo.org/charts/7>, accessed Aug. 7, 2023

Additional shortage stats

51% of all counties, and 65% of all nonmetropolitan counties, do not have a single psychiatrist.*

1 in 5 children live in a county without a child psychiatrist.†

80% of counties do not have any clinical child and adolescent psychologists.‡

*Modi, Hemangi. "Exploring Barriers to Mental Health Care in the U.S.," AAMC, Oct. 10, 2022

†Jenco, Melissa. "Study: 1 in 5 children lives in county without a child psychiatrist," American Academy of Pediatrics, Nov. 4, 2019

‡Lin, Luona and Stamm, Karen. "The Child and Adolescent Behavioral Health Workforce," American Psychological Association and the University of Michigan School of Public Health Behavioral Health Workforce Research Center, July 2020

Behavioral health visit volume outpaces practitioner supply

Percentage change in provider supply and visit volume, 2021 vs. 2018*

Provider	% change provider supply	% change visit volume
Psychiatrists	-2.8%	-1.3%
Psychiatric/mental health nurse practitioners	56.0%	79.8%
Doctorate psychologists	0.0%	4.0%
Master's-level clinicians	21.6%	37.4%
Social workers	18.5%	31.7%

- More than 60% of psychiatrists are 55 or older.†

*"Trends Shaping the Health Economy: Behavioral Health," Trilliant Health, <https://www.trillianthealth.com/behavioral-health-trends-shaping-the-health-economy>, March 2023

†Weiner, Stacy. "A growing psychiatrist shortage and an enormous demand for mental health services," AAMC, Aug. 9, 2022



Shortages

- **12%** of physicians practice in rural communities.*
- **61%** of areas deemed health professional shortage areas are in rural areas.*
- **4,040** mental health professional shortage areas are in rural counties, which is more than 60% of the total number of the shortage area designations.†

*Seshamani, Meena et al. "Addressing Rural Health Inequities in Medicare," CMS, Feb. 10, 2023

† "Rural Health Research Recap," Rural Health Research Gateway, August 2023

Top 5 ways rural health care organizations are addressing the labor shortage

1. Increasing wages.
2. Recruiting candidates more proactively.
3. Using technology (e.g., automated phone systems and apps).
4. Using traveling/temporary nonclinical staff.
5. Developing medical education and residency programs.

Workforce tops the list of challenges for rural health care organizations in 2023

1. The cost of labor, benefits and other people expenses.
2. Labor shortages and employee turnover.
3. Medicare/Medicaid reimbursements.

"The state of rural healthcare: Research report and outlook for 2023," Wipfli LLP, <https://www.wipfli.com/-/media/wipfli/collateral/hc-2023-wipfli-state-of-rural-healthcare-report.pdf>, Feb. 2, 2023

AHA RESOURCES

- **Workforce homepage:** Provides information and tools to help hospitals navigate workforce challenges and opportunities, including the guide "Strengthening the Health Care Workforce: Strategies for Now, Near and Far."
- **Behavioral health homepage:** Provides information and tools to help improve access to behavioral health services, including the **Integrating Physical and Behavioral Health** issue brief, stigma reduction initiatives such as **People Matter Words Matter** and important resources to prevent health care worker suicide such as a **suicide prevention guide** and case examples from a recent AHA suicide prevention **learning collaborative**.
- **American Organization for Nursing Leadership (AONL):** This national professional organization of more than 11,000 nurse leaders serves as their voice and provides professional development, advocacy and community.
- **Physician Alliance:** Supports physician leaders in improving care for their communities and helps clinical and administrative leaders collaborate effectively. View the **Be Well** hub to access resources addressing well-being.
- **Hospitals Against Violence:** Learn about effective prevention strategies and program development on national, state and local levels to help end violence in our communities and to help hospital employees cope with the impact of violence, whether at home, on the job or in their neighborhoods.
- **Professional membership groups:** These individual membership organizations support specific areas of hospital operations and offer opportunities for education, collaboration and access to valuable tools and resources.
- **Team Training:** This evidence-based program provides education and resources to both clinical and nonclinical health care professionals to improve process and outcomes as well as patient and staff satisfaction.
- **Institute for Diversity and Health Equity:** Advances health equity, diversity and inclusion by disseminating evidence-informed practices, resources and innovations that lead to sustainable transformation in health care. Supports leadership development programs such as the **Certificate in Diversity Management in Health Care** and an internship experience through the **Summer Enrichment Program**.



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Better Care and Greater Value

While hospitals and health systems can vary in size, location, services and patient populations, they possess a foundational, common purpose based in compassion and healing — aspiring to provide the highest quality health care for individuals and communities.

Infection prevention and control practices are critical components of hospitals' efforts to keep patients safe. However, many other factors affect health care quality and patient safety. For instance, workforce training, shortages and burnout impact quality of care. Additionally, facilities, equipment, medical devices and the availability of medical supplies and other resources can have an impact. Another important component includes rapidly changing technology and tools, such as the use of AI in clinical decision support. Environmental and societal factors also influence health care quality, including public health emergencies, health inequities and climate change.

One approach to improving quality of care is through care delivery transformation models. These different models include strategies such as team-based care, telehealth, alternative sites of care, care at home, addressing societal factors that influence health, population health management ... and more. Value-based payment models serve as a component of a hospital's operational infrastructure to support these strategies. These payment models strive to reward health care providers for the quality of care they provide, rather than the volume of services they deliver to patients.

Other sections of the Environmental Scan highlight challenges and opportunities in many areas that impact quality and safety. This section provides select insights related to quality, safety, value-based payment models and care transformation strategies. Hospitals and health systems continuously implement quality improvement initiatives and strive to create a culture of safety throughout their organizations.



Recent History

Health care-acquired infections (HAIs), 2020-2022

COVID-19 patients had significantly higher rates of HAIs compared with non-COVID-19 patients

HAI	HAIs: COVID-19 patients compared with non-COVID-19 patients
Catheter-associated urinary tract infections (CAUTI)	2.7x
Central line-associated bloodstream infections (CLABSI)	4.0x
Methicillin-resistant staphylococcus aureus (MRSA)	3.0x
Clostridioides difficile (C. difficile)	No difference

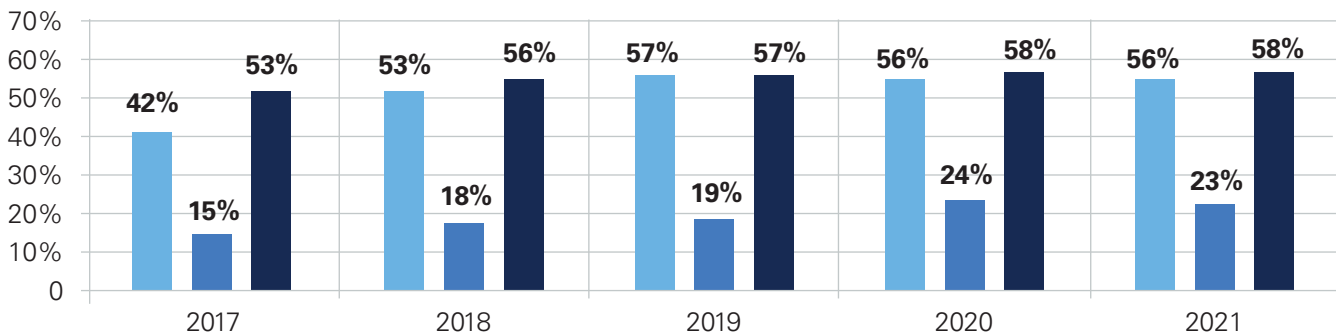
This study suggests health care professionals in community hospitals largely maintained the same level of care for preventing infections for non-COVID patients as they were before the pandemic.

- COVID patients experienced significant rates of HAIs, which increased overall HAI rates. The HAI increase for COVID-19 patients could be due to a combination of such factors as the increased length of hospital stay, the fact that staff working with COVID-19 patients may have been overworked or reassigned from their usual duties due to staff shortages, or some factor of the disease itself.

Sands, Kenneth E. et al. "Health Care-Associated Infections Among Hospitalized Patients With COVID-19, March 2020-March 2022," JAMA Network Open, doi:10.1001/jamanetworkopen.2023.8059, April 13, 2023

Value-based payment models have stabilized in recent years

- Community hospitals participating in an accountable care organization (ACO)
- Community hospitals with some percentage of net patient revenue paid on a shared-risk basis
- Community hospitals with contracts with commercial payers tied to quality/safety performance



AHA Annual Survey, 2018-2022

Note: Community hospitals include all nonfederal, short-term general and specialty hospitals whose facilities and services are available to the public. ACOs are groups of clinicians, hospitals and other health care providers who come together voluntarily to give coordinated high-quality care a designated group of patients.

The potential of value-based care

- Private-capital inflows in value-based care assets rose from 6% of the capital investment in hospitals to nearly 30% from 2019 to 2021.

Abou-Atme, Zahy et al. "Investing in the new era of value-based care," McKinsey & Company, Dec. 16, 2022

Current Pulse

Top patient safety concerns: 2023

1. The pediatric mental health crisis.
2. Physical and verbal violence against health care staff.
3. Clinician needs in times of uncertainty surrounding maternal-fetal medicine.
4. Impact on clinicians expected to work outside their scope of practice and competencies.
5. Delayed identification and treatment of sepsis.
6. Consequences of poor care coordination for patients with complex medical conditions.
7. Risks of not looking beyond the “five rights” to achieve medication safety.
8. Medication errors resulting from inaccurate patient medication lists.
9. Accidental administration of neuromuscular blocking agents.
10. Preventable harm due to omitted care or treatment.

Nuber, Edward. “ECRI’s Top 10 Patient Safety Risks for 2023,” March 14, 2023

Patient safety culture

The Agency for Healthcare Research and Quality (AHRQ) administered a survey designed to enable hospitals to assess provider and staff perspectives about patient safety issues, medical error and error reporting.

Highest scored composite measures of patient safety culture

Measures	% of respondents who ‘strongly agree’ or ‘agree’
Teamwork: Staff work together as an effective team, help each other during busy times, and are respectful.	82%
Supervisor, manager or clinical leader support for patient safety: Leaders consider staff suggestions for improving patient safety, do not encourage taking shortcuts, and take action to address patient safety concerns.	80%
Communication openness: Staff speak up if they see something unsafe and feel comfortable asking questions.	76%

Lowest scored composite measures of patient safety culture

Measure & definition	% of respondents who ‘strongly agree’ or ‘agree’
Response to error: Staff are treated fairly when they make mistakes and there is a focus on learning from mistakes and supporting staff involved in errors.	63%
Handoffs and information exchange: Important patient care information is transferred across hospital units and during shift changes.	63%
Staffing and work pace: There are enough staff to handle the workload, staff work appropriate hours and do not feel rushed, and there is appropriate reliance on temporary, float or <i>pro re nata</i> (PRN) staff.	51%

“Surveys on Patient Safety Culture™ (SOPS®) Hospital Survey 2.0 — 2022 User Database Report,” AHRQ, October 2022

Technology, Innovation and Future Outlook

EMERGING CARE DELIVERY TRANSFORMATION MODEL SPOTLIGHT: HOME-BASED CARE

Society faces a growing challenge in caring for two expanding groups of patients — those 65 and older and patients with chronic diseases. There are **more than 56 million Americans who are 65 and older**, and that number is **projected to climb to 81 million by 2040**.^{*} Caring for the 60% of U.S. adults who have at least one chronic disease accounts for **\$3.7 trillion** in annual health care costs. The ability to monitor health and deliver care outside traditional medical settings could significantly reduce this expenditure.[†] Additionally, studies show that care at home can **increase patient and family satisfaction and reduce caregiver stress**.[‡]

^{*}Vespa, Jonathan et al. "Demographic Turning Points for the United States: Population Projections for 2020 to 2060," Census Bureau, February 2020

[†]"4 Home Care Technologies to Prioritize," AHA Market Scan, May 23, 2023

[‡]"Hospital at Home™ Care Reduces Costs, Readmissions, and Complications and Enhances Satisfaction for Elderly Patients," AHRQ, Patient Safety Network, April 7, 2021

Impact of shifting care to the home

Up to \$265 billion worth of care services, representing as much as 25% of the total cost of care, for Medicare fee-for-service and Medicare Advantage beneficiaries could shift from traditional facilities to the home by 2025 without a reduction in quality or access.^{*}

- **Benefits for remote patient monitoring** include reduced hospitalizations, shorter hospital length of stays, fewer visits to the emergency room, better preventative management for chronic conditions and reduced risk of illnesses for patients and health care workers.[†]
- Remote patient monitoring has been shown to **improve patient engagement in their medical care, patient adherence to their treatment plan, and access and convenience for patients**.[‡]
- **Care at home has the potential to create value** for payers, health care facilities and physician groups, home care providers, technology companies and investors.^{*}

^{*}Bestsennyy, Oleg, Chmielewski, Michelle, Koffel, Anne and Shah, Amit. "From facility to home: How healthcare could shift by 2025," McKinsey & Company, Feb. 1, 2022

[†]"Telehealth and remote patient monitoring," HHS, <https://telehealth.HHS.gov>, accessed Sept. 17, 2023

[‡]Hood M.D., Colton et al. "Remote Patient Monitoring," AHRQ, Patient Safety Network, March 15, 2023

Hospital-at-Home (HaH) waivers

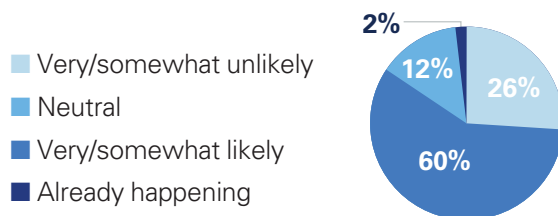
Hospital-at-Home programs enable some patients who need acute-level care to receive care in their homes, rather than in a hospital. This care delivery model has been shown to **reduce costs, improve outcomes and enhance the patient experience**. HaH programs have existed since the mid-1990s.

- The Acute Hospital Care at Home waiver program from CMS launched in November 2020, and the program was **extended through the end of 2024**.
- HaH waivers have been granted to **125 systems, 295 hospitals in 37 states** (as of Aug. 24, 2023).

"Approved Facilities/Systems for Acute Hospital Care at Home," CMS, <https://qualitynet.cms.gov/acute-hospital-care-at-home/resources>, accessed Sept. 17, 2023

Health care executives' prediction: Care at home

Health care executives were asked to predict whether at least 25% of acute care patients who would be treated in their hospital or health system as inpatients today will receive all their equivalent acute care services in their home by 2029.



"Futurescan 2024-2029: Health Care Trends and Implications," AHA's Society for Health Care Strategy & Market Development, 2023

Better Care and Greater Value

2023 chronic care volumes forecast

■ Inpatient volume ■ Outpatient volume

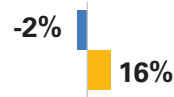
Advanced liver disease



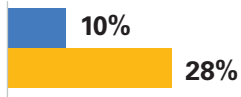
Dementia



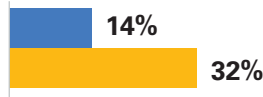
Inflammatory diseases



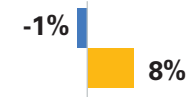
Congestive heart failure



Diabetes



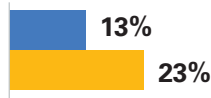
Multiple sclerosis



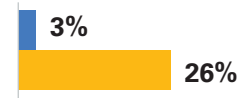
Chronic lung disease



End-stage renal disease



Rheumatoid arthritis



COPD



Data from "2023 Impact of Change® Forecast Highlights," Sg2, a Vizient company, accessed Aug. 8, 2023. Used with permission of Vizient, Inc. All rights reserved. Impact of Change®, 2023; HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP) 2019. Agency for Healthcare Research and Quality, Rockville, MD; Proprietary Sg2 All-Payer Claims Data Set, 2021; The following 2021 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2023; Sg2 Analysis, 2023



There can be no progress on health care quality and population health without health equity. Health equity is realized when all individuals have a fair opportunity to achieve their full health potential.*

Health care quality and health outcomes are often worse for racial/ethnic minorities, women, people living in rural communities, people with disabilities, those living in poverty, people with lower educational attainment and other historically marginalized groups. Economic, social and other injustices can create barriers to accessing high-quality health care and lead to disparities.† This section of the Environmental Scan provides just a few examples that illustrate existing disparities.

Hospitals and health systems are using a variety of strategies to address health equity. The **AHA's Health Equity Roadmap** provides a path to accelerate progress using six levers of transformation: community collaboration for solutions, equitable and inclusive organizational policies, culturally appropriate patient care, collection and use of data to drive action, diverse representation in leadership and governance, and systemic and shared accountability.

*"Health Equity: Prioritization, Perception, and Progress," Institute for Healthcare Improvement, 2021

†"Equity and Quality Connection," The Joint Commission, <https://www.jointcommission.org/our-priorities/health-care-equity>, accessed Sept. 18, 2023

SOCIETAL FACTORS THAT INFLUENCE HEALTH

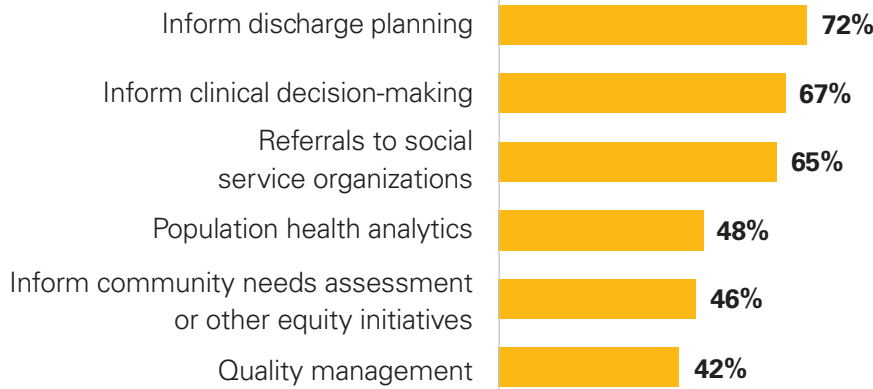
Much of health happens beyond the walls of hospitals and health systems. To improve health equity, hospitals engage in a variety of strategies to address the societal factors that influence the health of patients and communities. Recently, CMS added two social determinants of health measures to the Inpatient Quality Reporting program. Hospital reporting on the new measures is voluntary in 2023 and will become mandatory in 2024.

Majority of hospitals collect social needs data (2022)

83% of hospitals report collecting data on patients’ health-related social needs.

60% of hospitals report electronically receiving social needs data from external sources.

Most common uses of social needs data



Chaing, Wei and Richwine, Chelsea. "Social Needs Screening among Non-Federal Acute Care Hospitals, 2022," ONC Data Brief, no.67, Office of the National Coordinator for Health Information Technology, July 2023

DIGITAL DETERMINANTS OF HEALTH

Key aspects of digital determinants of health include access to technological tools, digital literacy and community infrastructure like broadband internet. They impact health outcomes and affect digital health equity, which is equitable access to digital health care, equitable outcomes from and experience with digital health care and equity in the design of digital health solutions.

Digital environment levels of influence

Individual	Interpersonal	Community	Societal
Digital literacy, digital self-efficacy, technology access, attitudes toward use	Implicit tech bias, interdependence (e.g., shared devices), patient-tech-clinician relationship	Infrastructure, health care infrastructure, community tech norms, community partners	Tech policy, data standards, design standards, social norms and ideologies, algorithmic bias

- The rapid digital transformation of health care may contribute to increased inequality. Digital health stakeholders should consider the digital determinants of health in product development and intervention design and dissemination, incorporating community and societal-level determinants as well as developing multilevel approaches.

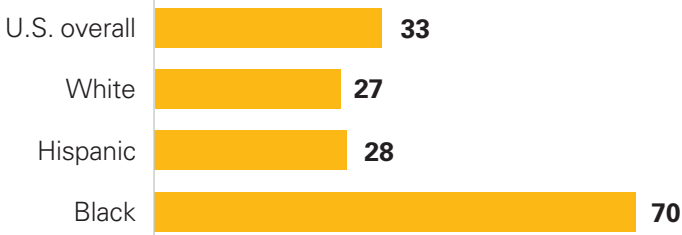
Richardson, S., Lawrence, K., Schoenthaler, A.M. et al. "A framework for digital health equity," npj Digit. Med. 5, 119, <https://doi.org/10.1038/s41746-022-00663-0>, Aug. 18, 2022

Better Care and Greater Value

Maternal mortality in the U.S.

- **Maternal mortality increased 40%** in 2021 compared with that of 2020.

Maternal deaths per 100,000 live births



- In 2020, the overall maternal mortality rate of high-income countries was 12 per 100,000 live births.

Simmons-Duffin, Selena and Wroth, Carmel. "Maternal deaths in the U.S. spiked in 2021, CDC reports," NPR, March 16, 2023

Promising review of maternal health and telehealth

- Replacing or supplementing usual maternal care with telehealth led to similar or better maternal, obstetric and patient-reported outcomes compared with usual in-person care alone, particularly for mental health, general maternal care and prenatal diabetes.
- Studies of general maternal care models aimed at reducing the number of in-person visits during the pandemic typically found improved attendance and higher levels of patient satisfaction.

Parsons, Rachael and Althuis, Michelle. "Promising Evidence for Telehealth Strategies for the Delivery of Maternal Health Care," Patient-Centered Outcomes Research Institute, July 27, 2022

Hispanic adults' perspective about their health outcomes

Hispanic adults report reasons why Hispanic people generally have worse health outcomes than other adults in the U.S.*

	Major reason	Minor reason	Not a reason
More likely to work in jobs with risk for health problems	53%	27%	19%
Less access to quality medical care where they live	48%	27%	23%
More communication problems from language, cultural differences	44%	33%	21%
Are more likely to have preexisting health conditions	40%	33%	26%
Live in communities with more environmental problems	38%	34%	26%
Health care providers are less likely to give advanced care	30%	33%	35%
Hospitals and medical centers give lower priority to well-being	27%	33%	38%

- The Hispanic population accounts for 19% of the U.S. population, up from 9% in 1990.†
- Between 2015 and 2060, the Hispanic and Asian populations are expected to double in size, and the multiracial population could triple.‡

*Funk, Cary and Lopez, Mark Hugo. "Hispanic Americans' experiences with health care," Pew Research Center, June 14, 2022

†Bahrapour, Tara and Mellnik, Ted. "Census data shows widening diversity; number of White people falls for first time," The Washington Post, Aug. 12, 2021



FOCUS ON

Behavioral Health

Studies support integration of physical and behavioral health

- Patients receiving integrated, primary care behavioral health services reported greater use of coping strategies, greater adherence to relapse-prevention plans and greater use of antidepressant medication with higher retention and satisfaction levels.*
- Integrated behavioral health services in adult primary care resulted in clinically significant decreases in depressive and anxiety symptoms among patients with depressive and anxiety disorders.*
- Integrated behavioral health programs were able to adapt quickly to the challenges posed by the COVID-19 pandemic, ensuring continued access to evidence-based mental health services for the primary care population.*
- Models show cost savings: An inpatient integrated behavioral health model resulted in a 159% return on investment, and a study of six primary care practices found integration reduced ED visits by 14.2%.†

*"Behavioral Health Integration Fact Sheet," American Psychological Association, <https://www.apa.org/health/behavioral-integration-fact-sheet>, accessed Aug. 13, 2023

†"Integrating Physical and Behavioral Health: The Time is Now," AHA, September 2023



FOCUS ON

Rural Health

Regional health care partnerships open the door to value-based models

Since 1998, HRSA has offered grants to help rural hospitals and health clinics form partnerships. The goal is to develop rural health networks that expand access to care, increase the use of health information technology, explore alternative health care delivery models and continue to achieve high-quality health care across the care continuum — from prevention and wellness to acute and long-term care.

There are at least 40 regional partnerships that foster the sharing of staff and resources, participation in value-based contracts and community development. Value-based payments also could enable rural providers to shift away from inpatient care and planned procedures where demand is low to offer chronic care management, home-based care and other services that could benefit their sicker and older patients.

Hostetter, Martha and Klein, Sarah. "How Regional Partnerships Bolster Rural Hospitals," The Commonwealth Fund, <https://doi.org/10.26099/qzfe-xh41>, May 15, 2023

AHA RESOURCES

Health Research & Educational Trust (HRET): A nonprofit affiliate of the AHA, HRET's applied research seeks to create new knowledge, tools and assistance to improve the delivery of health care by providers and practitioners within the communities they serve.

Project Firstline: Offers tools and resources needed to engage all stakeholders — from bedside nurses and administrators to environmental staff — to identify areas for improvement, commit to an action plan, monitor practices and adjust as needed.

Living Learning Network: A partnership between the AHA and the CDC, this peer-to-peer community of health care professionals is designed to discuss, ideate and reform health care in response to COVID-19, prepare for future public health emergencies and increase patient safety and quality.

Association for the Health Care Environment (AHE): For professionals in health care environmental services, AHE is the go-to resource for tools, products, education and training that support health care environments free of surface contamination and pathogen-free, healing environments.

The Health Equity Roadmap: A framework to help hospitals and health systems become more equitable organizations and dismantle structural barriers to health.

Societal Factors That Influence Health Framework: Designed to guide hospital strategies to address the social needs of their patients, social determinants of health in their communities and the systemic causes that lead to health inequities.

Community Health Assessment Toolkit: Updated toolkit provides a nine-step guide for hospitals and health systems to collaborate with their communities and strategic partners to conduct a community health assessment and meet community health needs assessment requirements.

Better Health for Mothers and Babies: Learn how the AHA is partnering with national organizations to safeguard mothers and babies by reducing maternal morbidity.

Age-friendly Health Systems: An initiative designed to meet the needs of older adults, looking beyond acute events, engaging the whole community and achieving better health for older adults with an increased focus on four key areas — the 4Ms (what Matters, Medication, Mentation and Mobility).

Members in Action series: Showcases how hospitals and health systems are managing risk and new payment models.

Hospital-at-home resources: A repository of hospital-at-home case studies and podcasts.

Consumerism

Health care consumerism generally is understood to mean people proactively using trustworthy, relevant information and appropriate technology to make informed decisions about their health care options in the broadest sense, both within and outside the clinical setting.* Empowering patients can take different forms — by equipping them with information to participate in decision-making or by providing them with the tools and technology to manage and monitor their own health.† The AHA and its members are committed to strategies that increase patient engagement and deliver the right care at the right place and at the right time.

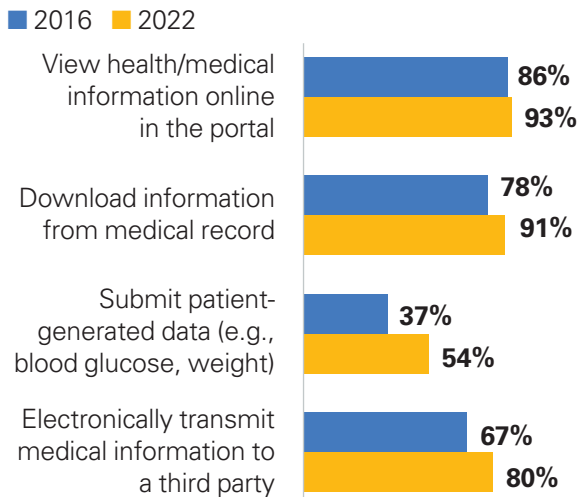
*Carman, Kristin et al. "The 'New' Health Care Consumerism," *Health Affairs*, 10.1377/forefront.20190304.69786, March 5, 2019
†van Poucke, Anna and Baran-Chong, Randall. "2021 Healthcare CEO Future Pulse: 10 actionable perspectives for healthcare leaders," *KPMG*, June 23, 2021



Recent History

Trends in electronic health record (EHR) patient engagement

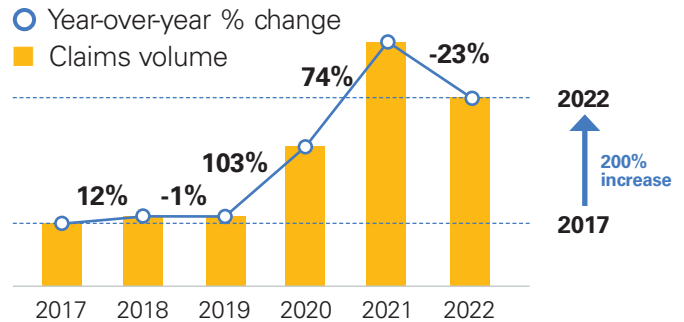
% of hospitals that provide their patients with the following technologies



- In 2022, 82% of hospitals provided patients with access to their health/medical information using apps.

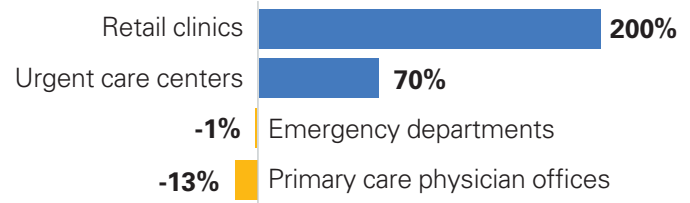
AHA Information Technology Surveys, 2017-2023

Retail clinic claims volume over time



- Excluding COVID-19-related procedures, retail clinic claims volumes were up by 21% from 2021 to 2022.

Claims volume growth, 2017-2022



"Retailers in healthcare: A catalyst for provider evolution," © 2023 Definitive Healthcare LLC. All rights reserved, May 2023

Current Pulse

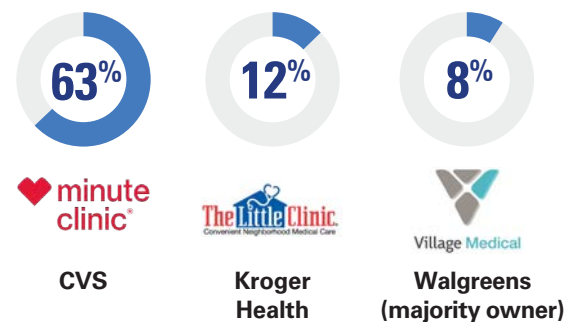
Retail clinic landscape

In 2023, there are more than 1,800 active retail clinics in 44 states. These clinics are more likely to be in major metropolitan areas. Only about **2% of clinics are in rural areas**, half of which were owned by CVS.

Implications for hospitals and health systems

- Be open to partnerships with retail care.
- Consider health system ownership models.
- Adopt retail-like strategies to compete.

Top 3 retail clinics' market share by number of locations

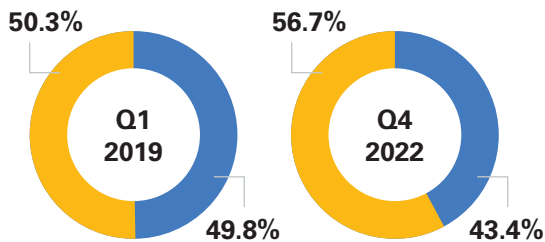


"Retailers in healthcare: A catalyst for provider evolution," © 2023 Definitive Healthcare LLC. All rights reserved, May 2023

Consumerism

Consumer sentiment improves: Use of a clinic inside a retail/grocery store

■ Positive feeling ■ Negative feeling



Makoul G. et al. "2023 Experience Perspective," NRC Health, <https://nrchealth.com/resources>, accessed Aug. 10, 2023

Affordability for U.S. consumers

43% of working-age adults were inadequately insured in 2022. Of this group:*

- 23% were underinsured.
- 11% experienced a gap in coverage over the past year.
- 9% were uninsured.

4 in 10 insured adults say they skipped or delayed some type of care in the past year due to cost.[†]

1 in 6 insured adults, including larger shares of those at lower income levels, say they had problems paying medical bills in the past year.[†]

*Collins, Sara R. et al. "The State of U.S. Health Insurance in 2022," The Commonwealth Fund, Sept. 29, 2022

†Pollitz, Karen. "KFF Survey of Consumer Experiences with Health Insurance," Kaiser Family Foundation (KFF), June 15, 2023

Pain points lead to deferred care

Four consumer health care journeys are of high importance, yet they are reported as deeply unsatisfying:



Getting coverage



Understanding benefits



Finding care



Saving and paying for care

Consumers who defer care report more use of EDs and urgent care centers and less routine preventive care compared with those who did not defer care. Consumer-centric journeys, including those that improve the transparency of health care costs, help consumers explore their options and provide care navigation to those at highest risk, could help address the cost-of-care barrier.

Buchter, Jessica et al. "Driving growth through consumer centricity in healthcare," McKinsey & Company, March 14, 2023

Technology, Innovation and Future Outlook

CHANGING PRIMARY CARE LANDSCAPE

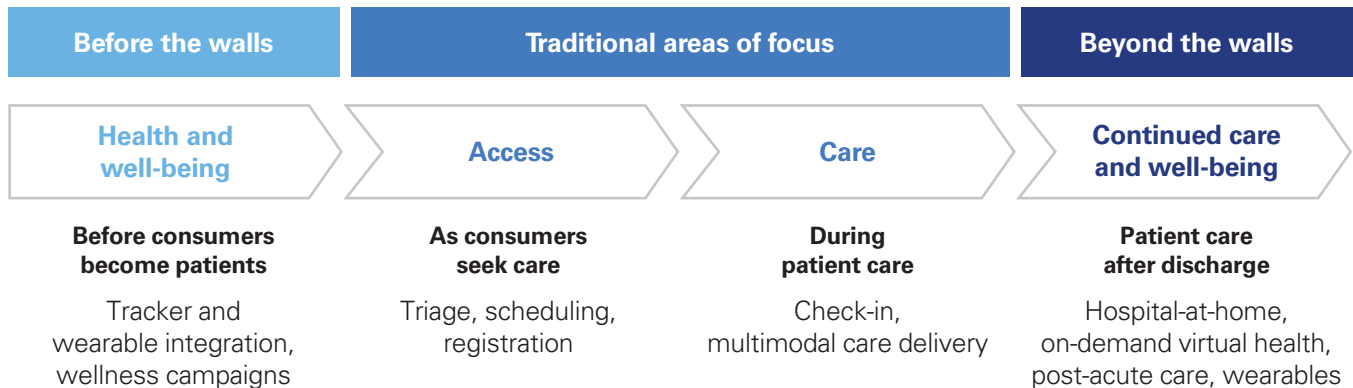
Prediction: Primary care in 2030

- **Nontraditional players** could own as much as **30% of the primary care market**.
- **Traditional fee-for-service providers** will remain the largest primary care model in 2030, but they could **lose around 15-20%** of market share.
- **Payers and payer-owned services** companies could serve around **15% of primary care lives**.
- **Retailers** could account for **5-10% of total primary care lives**.
- **Virtual care** is set to grow across all primary care models, climbing to early pandemic levels of approximately **20%** penetration.

Ney, Erin et al. "Primary Care 2030: Innovative Models Transform the Landscape," Bain & Company, July 11, 2022

Consumerism

Reimagining the consumers' health journey beyond the walls of the hospital through a digitally enabled experience



Appleby, Chuck et al. "Integrating digital health tools to help improve the whole consumer experience," Deloitte Insights, Deloitte and Scottsdale Institute analysis of expert interviews, Copyright ©2023 Deloitte Development LLC, April 11, 2023

MISINFORMATION

The pandemic has brought attention to the field of infodemic management in public health practice. During an emergency, there is the simultaneous dissemination of accurate information, misinformation, disinformation and outdated information from multiple channels. Often, there is a change in the perception of risk which can compromise how people accept health information and guidance. Health leaders are increasingly recognizing the need to expand their capacities for infodemic management to better prepare for future health emergencies.

An infodemic is an overabundance of information, accurate or not, in the digital and physical space, accompanying an acute health event such as an outbreak or epidemic.*

COVID-19 misinformation†

The prevalence of health misinformation on social media

- **Up to 51%** in posts associated with vaccines.
- **Up to 29%** in posts associated with COVID-19.
- **Up to 60%** in posts related to pandemics.
- Among YouTube videos about emerging infectious diseases, 20-30% were found to contain inaccurate or misleading information.

Infodemic management strategies*

- **Listen to concerns:** Listening will increase understanding community concerns, the contexts within which they live related to the outbreak or epidemic.
- **Communicate risk and translate science:** Effective risk communication is timely, accurate, credible, shows empathy, acknowledges uncertainty, promotes action and is delivered with respect.
- **Promote resilience to misinformation and disinformation:** Strengthening health and digital literacy includes (1) a focus on individuals, such as improving the ability to distinguish between accurate and inaccurate information and (2) a focus on the community, such as the ability to disseminate accurate information tailored to the population and access to trusted messengers.

*Briand, Sylvie et al. "Infodemic Management in the 21st Century." In *Managing Infodemics in the 21st Century*, Purnat, Tina; Nguyen, Tim; and Briand, Sylvie, eds. Springer, Cham, Germany. https://doi.org/10.1007/978-3-031-27789-4_1, May 10, 2023

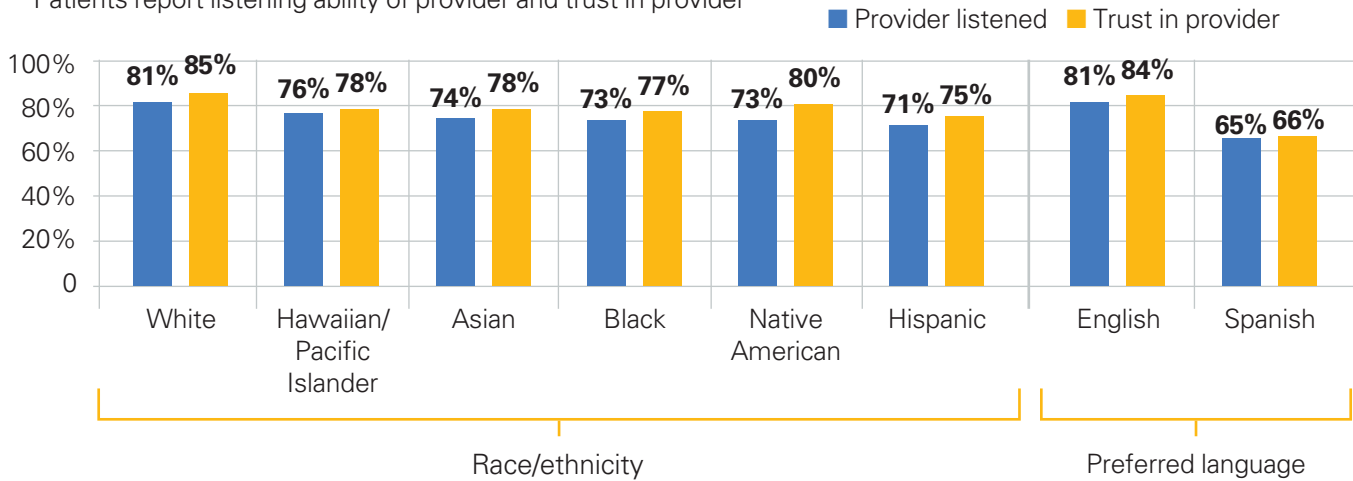
† "Infodemics and misinformation negatively affect people's health behaviours, new WHO review finds," World Health Organization, Sept. 1, 2022

Consumerism



Race, ethnicity and language impact the patient experience

Patients report listening ability of provider and trust in provider



Makoul G. et al. "2023 Experience Perspective," NRC Health, <https://nrchealth.com/resources>, accessed Aug. 10, 2023



Mental health care leads telehealth utilization

68.2% of telehealth claim lines among privately insured patients are for mental health conditions

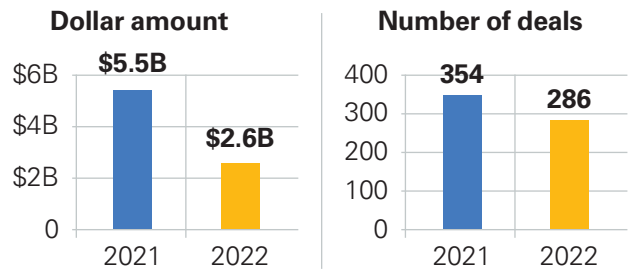
"Monthly Telehealth Regional Tracker, May 2023," FAIR Health Inc., <https://s3.amazonaws.com/media2.fairhealth.org/infographic/telehealth/may-2023-national-telehealth.pdf>, accessed Oct. 4, 2023, ©2023, FAIR Health Inc. All rights reserved. Used with permission.

Mental health tech growth

- New areas of growth focus on mental health apps geared to specific subpopulations, including youth, people of color and Indigenous people, LGBTQI+ individuals and people with serious mental illness. Funders appear interested in technologies that cover a broad spectrum of mental health problems and platforms that incorporate coaching and AI.

DeAngelis, Tori. "2023 Trends Report: As funding cools, venture capitalists shift investments in mental health," American Psychological Association, Jan. 1, 2023

Global investment in mental health technology



-52.7% change

-19.2% change

- All global digital health funding decreased 57% during the same period.
- Despite a year-over-year decline, 2022 saw a higher amount of funding in mental health technologies compared with 2018, 2019 and 2020.
- U.S. companies accounted for 54% of mental health tech deals in 2022.

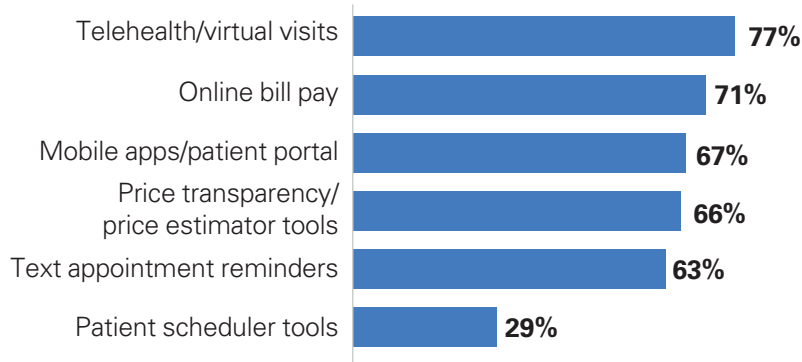
Larson, Chris. "2022 Mental Health Tech Funding Down 53%," Behavioral Health Business, Feb. 10, 2023



- A third of rural patients don't have access to consistent or affordable internet.

Rural health care organizations offer tools to improve the consumer experience

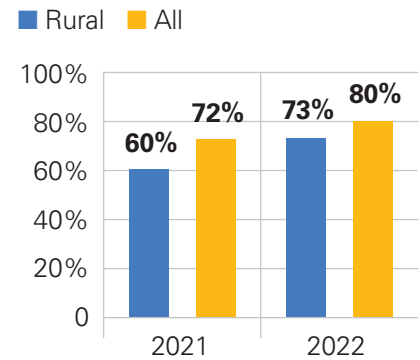
% of rural health care respondents who offer the following tools



"The state of rural healthcare: Research report and outlook for 2023," Wipfli LLP, <https://www.wipfli.com/-/media/wipfli/collateral/hc-2023-wipfli-state-of-rural-healthcare-report.pdf>, Feb. 2, 2023

Rural telehealth use increasing

Respondents who reported using telehealth at some point in their lives



Knowles, Madelyn et al. "Consumer adoption of digital health in 2022: Moving at the speed of trust," Rock Health, Feb. 21, 2023

AHA RESOURCES

Market Scan: A weekly e-newsletter with insights and analysis on the field's latest developments in health care disruption, transformation and innovation.

The Buzz on health care disruption: A Market Scan report looking at seven tech disruptors in 2023 and beyond.

Society for Health Care Strategy and Market Development (SHSMD): For health care professionals in strategic planning, business development, marketing, digital strategy and communications, SHSMD equips teams with new skills and strategies to help navigate an ever-changing competitive environment. SHSMD published the **Consumer Experience Reports Compendium**, containing strategies to improve patient access, reduce friction and improve the human experience.

Market Insights Telehealth Strategy: Reports and guidance to implement and strengthen telehealth services.

Market Insights Surveying the AI Health Care Landscape: A look at AI and its use cases for hospitals and health systems.

Vaccine confidence resources: Hub of resources providing hospitals and consumers with clear and concise information about the benefits of vaccination.

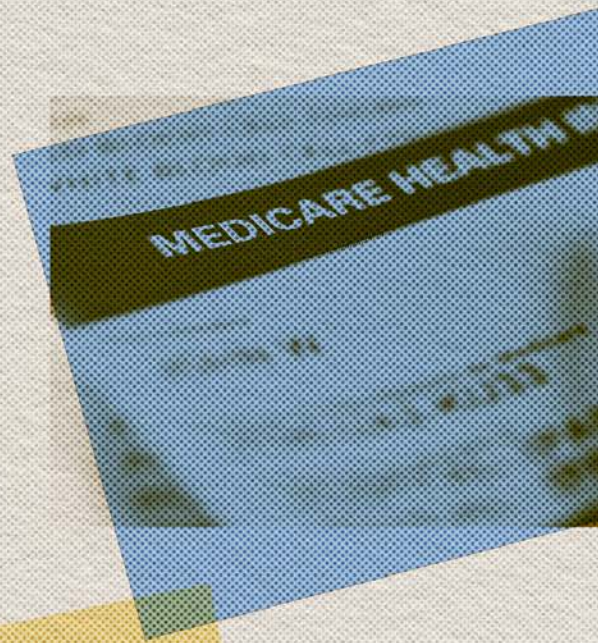
Health care consumer expectations and experiences webinar series: AHA members only can access this educational series, designed for hospital and health system leaders, as they focus new models and resources on consumers and patients to improve access, convenience and outcomes in the post-COVID-19 environment.

Convening Leaders for Emergency and Response: The AHA hub for emergency response and disaster preparedness provides resources to strengthen and reimagine the emergency management system for the nation's response and recovery efforts for natural disasters and other emergencies.



Trend Snapshots

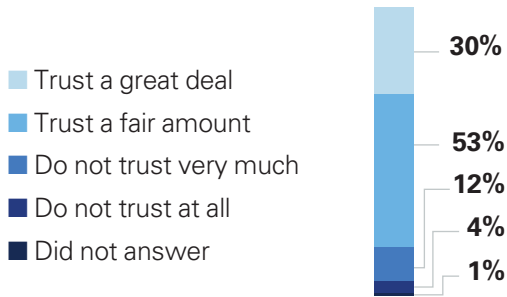
These trends may directly relate to hospitals and health systems, while other shifts in the environment impact all areas of society. Hospitals and health systems can assess how these trends will impact their communities and then devise strategies to meet these challenges.



Public Trust

Public perception of hospitals

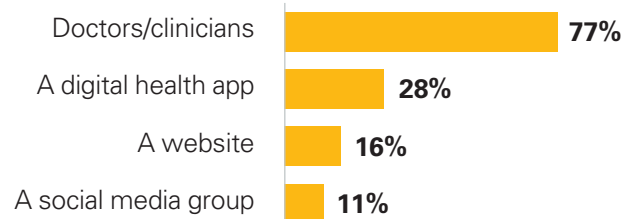
More than 8 of 10 voters say they trust their preferred hospital a great deal or a fair amount for information about critical health issues.



National survey of registered voters conducted by Public Opinion Strategies, July 2022

Trust in health information sources

% of respondents who responded they trust the following information sources:

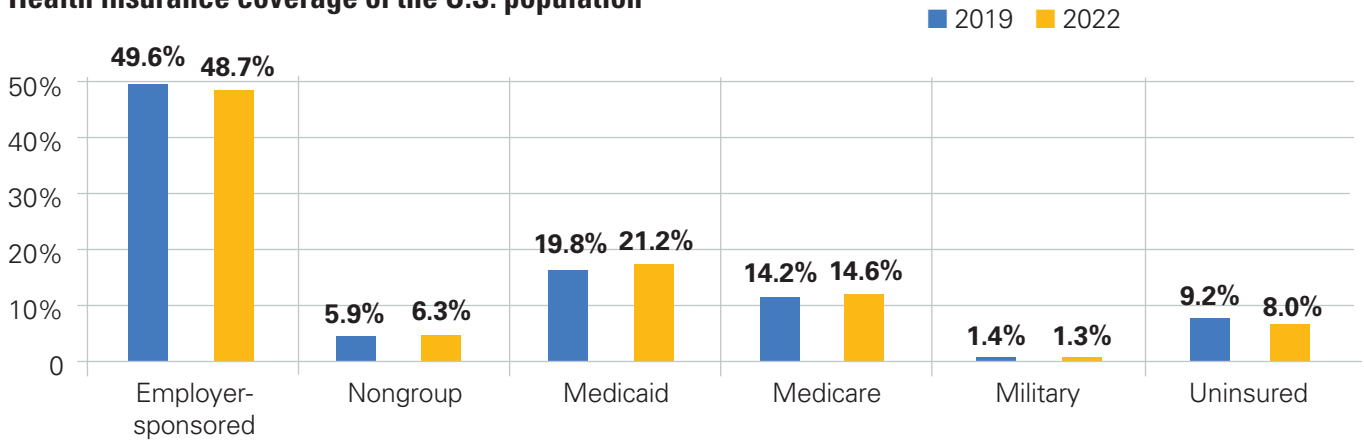


- 70% of respondents are willing to share their health data with their doctors/clinicians.

Knowles, Madelyn et al. "Consumer adoption of digital health in 2022: Moving at the speed of trust," Rock Health, Feb. 21, 2023

Coverage

Health insurance coverage of the U.S. population*



- 5.8% of adults reported having Affordable Care Act Marketplace coverage in early 2023, compared with 4.4% in 2020.[†]
- In 2022, 63.6 million people were enrolled in Medicare. Enrollment is projected to climb to 76.4 million by 2031.[‡]
- The Medicare Hospital Insurance Trust Fund is projected to become insolvent in 2031.[§]
- Enrollment in Medicaid was projected to reach a high of 97.6 million in 2022, expected to fall between 2023 and 2026 because of Medicaid redeterminations and will reach 93.6 million enrollees in 2031.[¶]

* "Health Insurance Coverage of the Total Population," KFF, <https://www.kff.org/other/state-indicator/total-population>, accessed Nov. 1, 2023

† "National Uninsured Rate Reaches an All-Time Low in Early 2023 After the Close of the ACA Open Enrollment Period," Office of the Assistant Secretary for Planning and Evaluation, HHS, Aug. 3, 2023

‡ Debusschere, Jackie. "CMS releases national healthcare expenditure and enrollment projections through 2031," Health Management Associates, June 22, 2023

§ Seitz, Amanda and Hussein, Fatima. "Medicare, Social Security could fall short over next decade," Associated Press, March 31, 2023

Trend Snapshots

Medicaid disenrollment

The 2020 Families First Coronavirus Response Act prohibited state Medicaid agencies from disenrolling people except under limited circumstances. Enrollment in Medicaid and Children’s Health Insurance Program grew by 21.9 million to nearly 93.0 million from February 2020 to January 2023. Pandemic-era limitations on Medicaid disenrollment ended on March 31, 2023.*

As of Oct. 23, 2023:†

- **At least 9,284,000 Medicaid enrollees have been disenrolled** or 35% of people with a completed renewal.
- **More than 70%** of all people disenrolled had their coverage **terminated for procedural reasons**.
- **Children account for 4 in 10 of all disenrollments** in the states that report age breakouts.

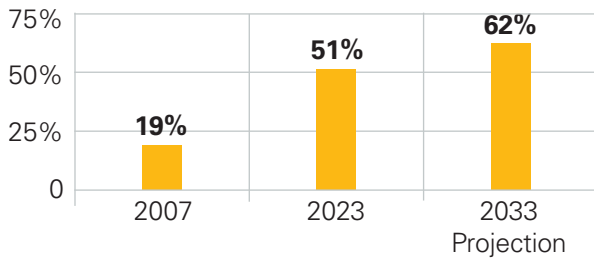
Based on the most current data from 50 states and the District of Columbia

*“Medical cost trend: Behind the numbers 2024,” PwC Health Research Institute, June 2023. ©PwC. Not for further distribution without the prior written permission of PwC

†“Medicaid Enrollment and Unwinding Tracker,” KFF, <https://www.kff.org/report-section/medicaid-enrollment-and-unwinding-tracker-overview>, accessed Oct. 24, 2023

MEDICARE ADVANTAGE

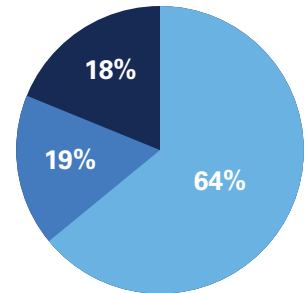
% of eligible Medicare beneficiaries enrolled in Medicare Advantage*



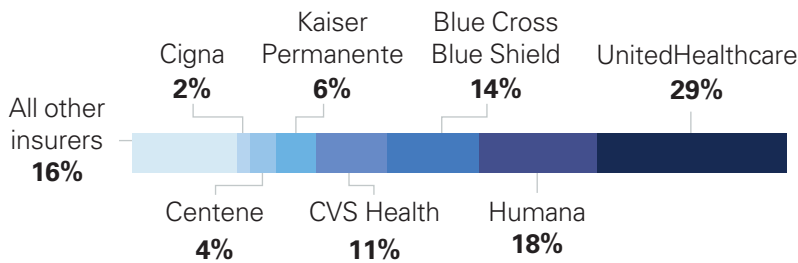
- Between 2022 and 2023, Medicare Advantage experienced an 8% growth rate.

Distribution of Medicare Advantage enrollees by plan type*

- Individual plans, open for general enrollment
- Special needs plans
- Employer/union-sponsored group plans



Medicare Advantage enrollment by firm or affiliate*



- In 32% of all U.S. counties, UnitedHealthcare and Humana account for at least 75% of enrollment.

*Ochieng, Nancy et al. “Medicare Advantage in 2023: Enrollment Update and Key Trends,” KFF, Aug. 9, 2023

National Health Expenditures

From 2022 to 2031, the average annual growth in national health expenditures (5.4%) will outpace the average annual growth in gross domestic product (GDP) (4.6%), resulting in an increase in the health spending share of GDP from 18.3% in 2021 to 19.6% in 2031.

“CMS Office of the Actuary Releases 2022-2031 National Health Expenditure Projections,” CMS, June 14, 2023

Artificial Intelligence landscape

AI domains identified in hospitals

A “domain” is defined as a core functional focus area for an organization.

Hospital AI Domain	Description
Continuity of care	Optimizing point-of-service and referrals to improve patient care
Network and market insights	Tracking relationship strength among providers
Clinical operations	Optimizing clinical workflow and capacity throughout care journey
Clinical analytics	Improving patient care journey with data at all points of care delivery
Quality and safety	Reducing adverse events with attention to patient experience and legal compliance
Value-based care	Improving patient outcomes with value-based care models
Reimbursement	Automating and optimizing payment flows between providers and payers
Corporate functions	Managing back-office, administrative functions
Consumer	Understanding how best to engage consumers using tools

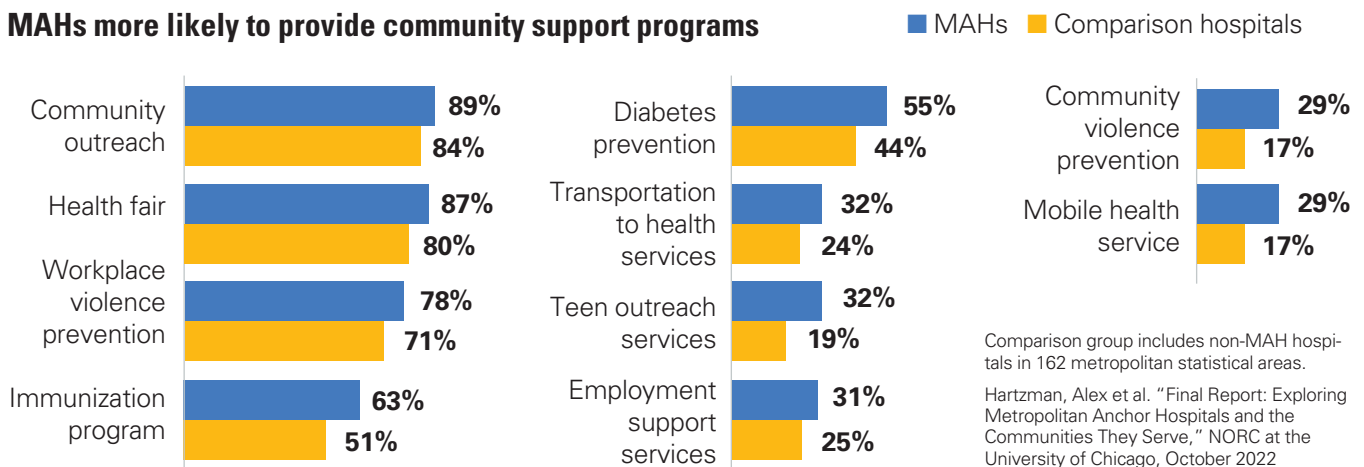
- Some domains, such as reimbursement and corporate functions, are more advanced in AI adoption. Continuity of care and quality and safety are in the beginning stages of AI development and adoption. Others are in the pilot stage.
- Wider adoption of AI could lead to **savings of 5-10%** in U.S. health care spending — **\$200 billion to \$360 billion** annually. This opportunity has the potential to be achieved within the next 5 years using today’s technologies without sacrificing quality or access.

Sahni, Nikhil et al. “The potential impact of artificial intelligence on healthcare spending,” National Bureau of Economic Research Working Paper Series, <https://www.nber.org/papers/w30857>, ©January 2023

Metropolitan Anchor Hospitals

Metropolitan Anchor Hospitals (MAHs) are urban hospitals with greater-than-average rates of Medicaid inpatient utilization, higher disproportionate patient percentage and high per-bed uncompensated care costs.

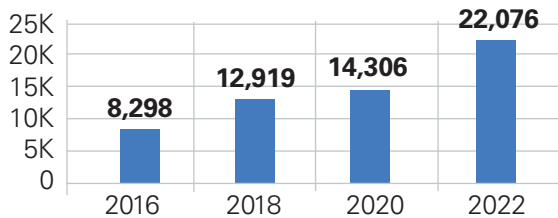
MAHs more likely to provide community support programs



Mental health of young people

- **Mental health cases** among children’s hospital ED discharges were **20% higher** in 2022 than 2019.

Children’s hospital suicide and self-injury ED cases by year



- Among all mental health cases, suicide (attempts and ideation) and self-injury have seen the greatest increase and have become the most common ED mental health conditions in children’s hospitals.
- Since 2016, suicide and self-injury ED cases have nearly tripled.

Data from 38 children’s hospitals from the Children’s Hospital Association’s The Pediatric Health Information System®. Mental health ED cases: Ages 3-18. Suicide/Self-injury ED cases: Ages 5-18. “The Latest Pediatric Mental Health Data,” Children’s Hospital Association, April 21, 2023

Young adults are more likely than older adults to experience anxiety or depression

In February 2023, 32% of all adults and 50% of young adults ages 18-24 reported anxiety and/or depression systems.

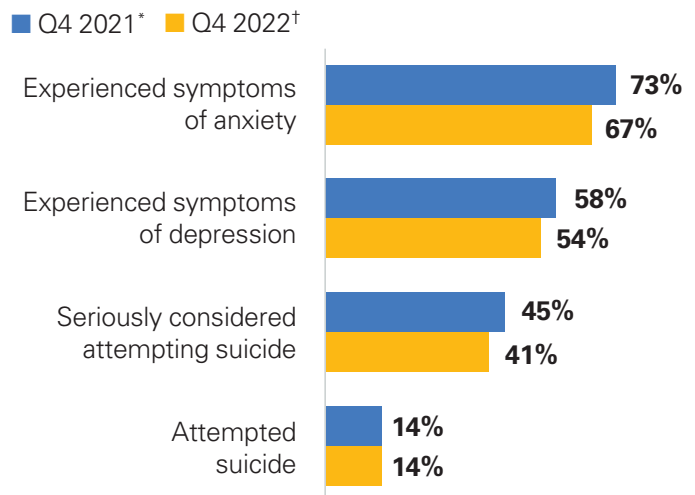
“Latest Federal Data Show That Young People Are More Likely Than Older Adults to Be Experiencing Symptoms of Anxiety or Depression,” KFF, March 20, 2023

Social media and mental health connection

- Since the onset of the pandemic, visits for eating disorders, depressive disorders and self-harm among patients younger than 18 increased at rates higher than the overall population and are correlated with increased utilization of social media.

“Trends Shaping the Health Economy: Behavioral Health,” Trilliant Health, <https://www.trillianthealth.com/behavioral-health-trends-shaping-the-health-economy>, March 2023

LGBTQ youth (ages 13-24)



- Nearly 1 in 3 LGBTQ young people said their mental health was poor most of the time or always due to anti-LGBTQ policies and legislation.

*“2022 National Survey on LGBTQ Youth Mental Health,” The Trevor Project, May 4, 2022
 †“2023 U.S. National Survey on the Mental Health of LGBTQ Young People,” The Trevor Project, May 9, 2023

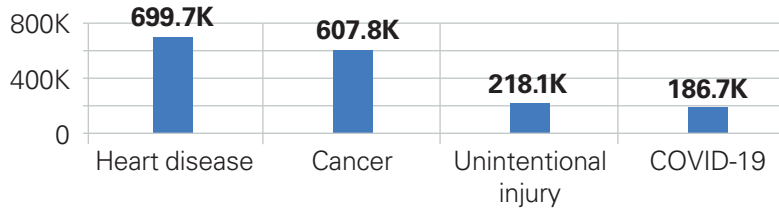
Gun Violence in the U.S.

- **Firearms are the leading cause of death** for children and the weapon used most in interpersonal violence against women.
- Each year, firearm-related injuries lead to roughly **30,000** inpatient hospital stays and **50,000** ED visits, generating more than **\$1 billion** in initial medical costs. Medicaid and other public insurance programs absorb most of these costs.

Gumas, Evan D. et al. “The Health Costs of Gun Violence: How the U.S. Compares to Other Countries,” The Commonwealth Fund, <https://doi.org/10.26099/a2at-gy62>, April 20, 2023

Mortality in the U.S.

Leading underlying causes of death in 2022 (number of deaths)



Compared with 2021:

- The age-adjusted death rate decreased 5.3%.
- COVID-19 deaths declined 47%.

Reed, Tina. "U.S. death rate falls as COVID slips to 4th most common cause of death," Axios, May 5, 2023

Increase of deaths by suicide

- A record-high 49,369 suicide deaths in 2022.
- A record-high number of gun-related suicides in 2022.
- 55% of all suicides were gun-related for both 2021 and 2022.
- More than half a million lives were lost to suicide from 2011 to 2022.

Saunders, Heather and Panchal, Nirmita. "A Look at the Latest Suicide Data and Change Over the Last Decade," KFF, Aug. 4, 2023

Climate and Health

HEAT'S IMPACT ON HEALTH

Record-setting heat

- The summer of 2023 was the hottest on record.

"Summer 2023 was hottest on record, scientists say," Reuters, Sept. 7, 2023

Implications of heat

- Heat illness.
- Accelerated death from respiratory, cardiovascular or other chronic disease.
- Hospitalization.
- Decreased health service delivery capacity.
- Increased risk of accidents.
- Increased transmission of disease.
- Potential disruption of infrastructure, including power, water and transportation.

"Heat and Health," World Health Organization, June 1, 2018

Air quality

- **1 in 3** people Americans live in places with unhealthy levels of air pollution.
- Although people of color are 41% of the overall U.S. population, they are 54% of the nearly 120 million people living in counties with at least one 'failing grade' by the American Lung Association, indicating levels do not meet national air quality standards.

"State of the Air," American Lung Association, <https://www.lung.org/research/sota>, April 2023

Cost of climate change

- There have been at least **24 U.S. weather disasters** with damage of at least \$1 billion each in 2023 (as of Oct. 2023).

"Billion-Dollar Weather and Climate Disasters," National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NOAA), <https://www.ncei.noaa.gov/access/billions>, October 2023

Hospital food and sustainability

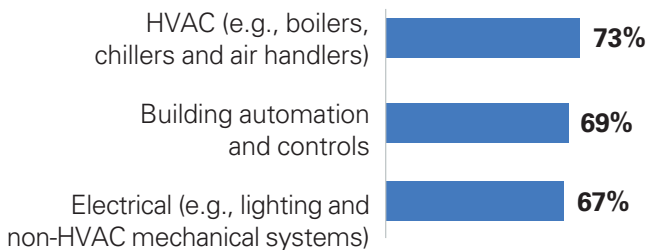
The move toward plant-based meals is helping some hospitals meet sustainability goals. A recent study indicates that plant-based diets account for 75% less greenhouse gas emissions than diets that include 3.5 ounces of meat a day, and the United Nations estimates that about 10% of global greenhouse gas emissions are caused by food loss and food waste.

- More than 100 hospitals have signed the Coolfood Pledge, an international effort to achieve a science-based collective target of reducing emissions from food by 25% by 2030.

“How hospital food can fuel sustainability efforts,” AHA Market Scan, Oct. 3, 2023

Hospital leadership in sustainability

- **58% of hospitals and health systems** say they have both publicly **committed to sustainability/ decarbonization** goals and have a designated director or higher role to oversee those goals.



Top motivators for pursuing health care sustainability and decarbonization goals

- Improved operational efficiency.
- Long-term cost savings.
- Improving indoor air quality.

“2023 Hospital Construction Survey,” Health Facilities Management magazine, American Society for Health Care Engineering

AHA sustainability resources

Health care facilities are working together to advance sustainability goals by adopting environmental and fiduciary practices that support healthy equitable and resilient environments and communities. In support of its mission of advancing the health of individuals and communities, AHA’s American Society for Health Care Engineering (ASHE) provides strategic thought leadership, resources and programs to support health care organizations pursuing sustainability.

- **Sustainability Roadmap for Health Care:** A hub of resources that guide hospitals on their sustainability journey and reduce hospitals’ carbon footprint and operational costs.
- **HealQuest™:** A program to promote cultural changes by guiding interdepartmental teams through two days of hands-on activities to help make health care facilities more sustainable.
- **Energy to Care:** An energy-reduction program that helps facilities track, manage and communicate energy savings through benchmarking, education, recognition and energy-saving exercises.



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