2022 ENVIRONMENTAL SCAN

The AHA's 2022 Environmental Scan is sponsored by AMN Healthcare and B.E. Smith.
We had hoped that by now, COVID-19 would have been a public health emergency that had been solved or mostly brought under control. We now know that we will be co-existing with COVID-19 in some way for the foreseeable future, with no hard stop in sight. This will continue to affect not only our nation’s health, but also the ability of hospitals and health systems to improve it … let alone transform it.

The AHA’s 2022 Environmental Scan offers a mixed picture for our field right now. There are bright spots for sure, promising developments and many inspiring stories to share. At the same time, there continue to be areas of serious concern, especially around the issue of strengthening the resiliency and capacity of our dedicated workforce.

With another year of pandemic experience under our belts, hospitals and health systems are innovating as never before, finding and sharing solutions and best practices with each other.

The demonstrated ability of care providers to consider new ideas, try new methods and remain nimble in the face of the pandemic bodes well not only for the short term, but also for the long game as our field’s established business models continue to undergo significant change.

The transformation of our health care system was well underway before COVID-19 appeared, and many of the future trends identified in the 2022 Environmental Scan are sure to be met with the same willingness to adapt and think creatively.

Even as the pandemic lingers, this is a good time to pause, take a breath and thoughtfully consider the landscape ahead, with plenty of focus on the post-COVID world.

What do we take away from this experience to reevaluate, reboot, and re-imagine to create a better future?

This report offers our best thinking and information to consider on a range of issues that confront us all, including: co-existing with COVID-19, access and affordability, innovation and delivery transformation, health equity, behavioral health, and the future of workforce and health care employment trends, among others.

We hope that the statistics and projections in this Environmental Scan will help hospital and health system leaders chart the best course to the future for their organizations, providing a comprehensive understanding of the many influences at work that impact our health care system.

Our goal is to help you deal with the now, near and far as you approach every day with one goal in mind: providing the best care to every patient and protecting your community.

‘Our goal is to help you deal with the now, near and far as you approach every day with one goal in mind: providing the best care to every patient and protecting your community.’

Welcome to the 2022 Environmental Scan

RICK POLLACK
President and CEO
American Hospital Association

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Advancing Health in America
The pandemic has resulted in historic challenges for hospitals and health systems and the communities they serve. Hospitals and health systems are navigating financial and operational pressures that include: the high costs associated with preparing for a surge of COVID-19 patients and resource-intensive treatment; added expenses due to supply chain and labor market disruptions; and loss of revenue due to the lower patient volumes for nonemergency care. Economic stability must be gained to ensure that hospitals and health systems can continue to provide vital care to communities across the nation.

Hospitals’ Financial Challenges

UNPRECEDENTED FINANCIAL LOSSES TO U.S. HOSPITALS AND HEALTH SYSTEMS CONTINUE IN 2021 AFTER HISTORIC LOSSES IN 2020

$54 BILLION

2021 net income loss estimate


HOSPITALS’ FINANCIAL HEALTH DETEORIATING

% Decrease in median operating margin in 2020 compared with 2019

Without federal relief/CARES Act

With federal relief/CARES Act

-55.6%  -16.6%


2021 Financial insights

These projections examine data from Q1 & Q2 2021 and do not factor in recent increases in COVID-19 cases from the Delta variant, which could drive margins even lower in the second half of the year.

- Higher costs of caring for sicker patients and fewer outpatient visits than pre-pandemic levels could lead median hospital margins to be 11% below pre-pandemic levels by year’s end.
- The median length of stay is up 8% compared to 2019 for most hospitals, and up as high as 18% for some hospitals with 500 beds or more.
- More than a third of hospitals are expected to end 2021 with negative operating margins.
- If there were no relief funds from the federal government, losses in net income would be as high as $92 billion.


EXPENSES INCREASE COMPARED WITH PRE-PANDEMIC LEVELS

% Change in year-to-date expenses per adjusted discharge, 2021 compared with 2019 (Jan. 1 to Sept. 30)


LABOR COSTS INCREASE IN 2021

- Hospitals and health systems are paying $24 billion more per year for qualified clinical labor than they did pre-pandemic.*
- The annual rate of turnover in emergency, ICU and nursing departments has increased from 18% pre-pandemic to 30% in 2021. This number could increase as mandates take effect.*
- The use of agency and temporary labor increased 132% for full-time workers and 131% for part-time workers.*
- Travel nurse rates jumped more than 200%. Hospitals are spending approximately 62.5% more for travel RNs than they did at the start of 2020.†

### Hospital Volumes and Utilization

#### 2020 NATIONAL VOLUMES ( Compared with 2019 )

<table>
<thead>
<tr>
<th>Site of Care</th>
<th>Adjusted Discharges</th>
<th>Average Length of Stay</th>
<th>Emergency Department Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital outpatient department</td>
<td>35.5 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Ambulatory surgery center</td>
<td>32.0 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Physician office/clinic</td>
<td>19.2 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Home-based services</td>
<td>413.8 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>30.4 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Skilled nursing facility</td>
<td>3.2 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
<tr>
<td>Emergency department</td>
<td>91.7 million</td>
<td>-9.8%</td>
<td>-22.6%</td>
</tr>
</tbody>
</table>


#### MANY PREVENTIVE SERVICES DECREASED IN 2020

<table>
<thead>
<tr>
<th>Preventive Service</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonoscopies</td>
<td>-32%</td>
</tr>
<tr>
<td>Childhood immunizations</td>
<td>-21%</td>
</tr>
<tr>
<td>Mammograms</td>
<td>-21%</td>
</tr>
<tr>
<td>Pap smears</td>
<td>-11%</td>
</tr>
<tr>
<td>PSA (prostate-specific antigen) tests</td>
<td>+1%</td>
</tr>
</tbody>
</table>


### 2021 NATIONAL VOLUMES, YEAR TO DATE

<table>
<thead>
<tr>
<th>Site of Care</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharges</td>
<td>-6.3%</td>
</tr>
<tr>
<td>Adjusted discharges</td>
<td>-4.1%</td>
</tr>
<tr>
<td>ED visits</td>
<td>-10.5%</td>
</tr>
<tr>
<td>Adjusted patient days</td>
<td>+0.7%</td>
</tr>
<tr>
<td>Average length of stay</td>
<td>+5.5%</td>
</tr>
</tbody>
</table>


#### Looking Ahead to 2029

- Behavioral health virtual visits may increase by 50%.
- Growth in hospital-at-home helps to move patients out of skilled nursing facilities despite an aging population.
- Growth opportunities require organizations to invest in chronic disease-management services.
- COVID-19 creates an enduring demand for specialist care required to support chronic COVID-impacted conditions.


### 2029 FORECAST: CARE IN ALTERNATIVE SETTINGS ON THE RISE

<table>
<thead>
<tr>
<th>Site of Care</th>
<th>Patient Volumes 2019</th>
<th>Patient Volumes 2029</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital outpatient department</td>
<td>35.5 million</td>
<td>42.3 million</td>
<td>+19%</td>
</tr>
<tr>
<td>Ambulatory surgery center</td>
<td>32.0 million</td>
<td>40.1 million</td>
<td>+25%</td>
</tr>
<tr>
<td>Physician office/clinic</td>
<td>19.2 million</td>
<td>22.7 million</td>
<td>+18%</td>
</tr>
<tr>
<td>Home-based services</td>
<td>413.8 million</td>
<td>474.9 million</td>
<td>+15%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>30.4 million</td>
<td>30.1 million</td>
<td>-1%</td>
</tr>
<tr>
<td>Skilled nursing facility</td>
<td>3.2 million</td>
<td>3.0 million</td>
<td>-5%</td>
</tr>
<tr>
<td>Emergency department</td>
<td>91.7 million</td>
<td>86.9 million</td>
<td>-5%</td>
</tr>
</tbody>
</table>


Learn more about relief and recovery efforts through the AHA’s advocacy efforts at [aha.org/advocacy/action-center](aha.org/advocacy/action-center).
Supply Chain

SHORTAGES ARE PREVALENT

93% of provider executives reported experiencing supply chain shortages.

PLANNED INVESTMENTS

<table>
<thead>
<tr>
<th>Predictive modeling</th>
<th>81%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario planning</td>
<td>31%</td>
</tr>
<tr>
<td>Simulations</td>
<td>23%</td>
</tr>
</tbody>
</table>

"Medical cost trend: Behind the numbers 2022." PwC’s Health Research Institute, June 2021. © PwC. Not for further distribution without the prior written permission of PwC. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please seewww.pwc.com/structure for further details.

TOP STRATEGIES FOR RESILIENCE AND AGILITY

Investing now or will invest within two years

• Deepen collaborative relationships with key customers and suppliers.
• Diversify the supply base (multisourcing).
• Supply chain segmentation.
• Redesign products — reduce variety, increase common components.
• Diversify markets including geographies or product lines.


PPE MARKUP

Personal protective equipment (PPE) prices were marked up 2,000% for isolation gowns and 6,000% for N95 masks during the early weeks of the pandemic.

"Top health industry issues of 2021: Will a shocked system emerge stronger?" PwC’s Health Research Institute, April 2021. © PwC. Not for further distribution without the prior written permission of PwC. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.

The AHA Dynamic Ventilator Reserve

This initiative is a public-private partnership that brings together health systems from across the country to share ventilators with hospitals experiencing shortages. The program was reactivated in August 2021 due to renewed demand. More than 100 ventilators have been shared nationwide. Learn more at aahadata.com/dynamic-ventilator-reserve.
National Economic Landscape

GROSS DOMESTIC PRODUCT (GDP)*

GDP growth is outpacing national health spending growth.

<table>
<thead>
<tr>
<th>GDP (in trillions)</th>
<th>Health care share of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>$21.50</td>
<td>17.6%</td>
</tr>
<tr>
<td>$20.86</td>
<td>18.0%</td>
</tr>
<tr>
<td>$23.06</td>
<td>17.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GDP growth from prior year</th>
<th>Health spending growth from prior year</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.6%</td>
<td>3.9%</td>
</tr>
<tr>
<td>18.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>17.4%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

CUMULATIVE SPENDING GROWTH*

% Difference: July 2021 vs. January 2020

- Prescription drugs: 3.8%
- Home health care: 3.8%
- Hospital care: 3.5%
- Physician and clinical: -2.4%
- Nursing home care: -4.9%
- Dental services: -10.3%

EMPLOYMENT: AUGUST 2021*

<table>
<thead>
<tr>
<th>Field</th>
<th>% Below February 2020 employment level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing and residential care</td>
<td>-11.3%</td>
</tr>
<tr>
<td>Health care</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Hospital</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Ambulatory care</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Total employment</td>
<td>-3.5%</td>
</tr>
</tbody>
</table>

Over 20 million Americans lost their jobs in April 2020, driving the unemployment rate up to 14.7%, the highest rate since the Great Depression.†

CO-EXISTING WITH COVID-19

As the health care field and society move toward a new normal, science and public health practices will continue to be the guiding force to ensure that people can live, work and play safely. In addition to serving on the front lines of caring for COVID-19 patients, the people working in hospitals and health systems are trusted messengers and can share evidence-based information about the virus to their communities.

COVID-19 Infection and After-effects

Six most common post-COVID conditions
1. Pain
2. Breathing difficulties
3. Hyperlipidemia
4. Malaise and fatigue
5. Hypertension
6. Anxiety

HOSPITALIZATION

The odds of death 30 days or more after initial diagnosis with COVID-19 were 46 times higher for patients who were hospitalized and discharged than for patients who had not been hospitalized.


POST-COVID CONDITIONS

<table>
<thead>
<tr>
<th>Patients who had COVID-19</th>
<th>% With at least one post-COVID condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>23.3%</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>19.0%</td>
</tr>
<tr>
<td>Symptomatic, but not hospitalized</td>
<td>27.5%</td>
</tr>
<tr>
<td>Hospitalized</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

COVID-19 POSITIVITY RATE IS LOWEST AMONG THOSE WHO ALWAYS WORE A MASK*

<table>
<thead>
<tr>
<th>Mask-wearing practice outside of the home</th>
<th>Tested positive for COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>All the time</td>
<td>11%</td>
</tr>
<tr>
<td>Sometimes, but not all the time</td>
<td>13%</td>
</tr>
<tr>
<td>Occasionally, but not often</td>
<td>18%</td>
</tr>
<tr>
<td>Never</td>
<td>23%</td>
</tr>
</tbody>
</table>

* Nather, David. “People who wore masks were less likely to get sick,” Axios, June 7, 2021 (Axios-Ipsos Coronavirus Index polling data from March 2020 to May 24, 2021).
† Lockerd Maragakis, Lisa, M.D. “Coronavirus Face Masks & Protection FAQs,” Johns Hopkins Medicine, June 3, 2021.

WEARABLES TRACK COVID-19 PATIENT RECOVERY

Length of time to return to baseline:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resting heart rate</td>
<td>79</td>
</tr>
<tr>
<td>Step count</td>
<td>32</td>
</tr>
<tr>
<td>Sleep quantity</td>
<td>24</td>
</tr>
</tbody>
</table>


MAJOR DECLINE IN LIFE EXPECTANCY IN U.S.

- Life expectancy declined by nearly two years from 2018 to 2020, the largest decline since 1943.
- The U.S. mortality rate increased by 23% in 2020, experiencing 522,000 more deaths than normally would be expected.
- Average loss of life expectancy in the U.S. was nearly nine times greater than the average in 16 other developed countries, whose residents can expect to live 4.7 years longer than Americans.
- Americans died at younger ages during this period.

YEARS OF LIFE EXPECTANCY LOST

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Years lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Americans</td>
<td>1.36</td>
</tr>
<tr>
<td>Black Americans</td>
<td>3.25</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>3.88</td>
</tr>
</tbody>
</table>


COST OF A HOSPITALIZATION (JAN. 2020 – APRIL 2021)

<table>
<thead>
<tr>
<th>Type</th>
<th>Median charge amount</th>
<th>Median estimated allowed amount (negotiated in-network fee with providers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 hospitalization with complexities</td>
<td>$208,136</td>
<td>$70,098</td>
</tr>
<tr>
<td>General COVID-19 hospitalization</td>
<td>$54,262</td>
<td>$25,188</td>
</tr>
<tr>
<td>COVID-19 non-hospitalization</td>
<td>$2,289</td>
<td>$893</td>
</tr>
</tbody>
</table>


UNVACCINATED HOSPITALIZATION COSTS

$5.7 BILLION Estimated cost of COVID-19 hospitalizations among unvaccinated adults from June through August 2021.

Vaccination

U.S. COVID-19 VACCINATION PROGRAM CURBS DEATH TOLL

Without a vaccination program, by the end of June 2021 there would have been approximately 279,000 additional deaths and as many as 1.25 million additional hospitalizations.


COVID-19 VACCINATION EFFECTIVE AGAINST THE DELTA VARIANT

Compared with vaccinated adults, unvaccinated adults have:

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Unvaccinated Adults vs. Vaccinated Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>5x</td>
<td>the risk of infection</td>
</tr>
<tr>
<td>10x</td>
<td>the risk of hospitalization</td>
</tr>
<tr>
<td>10x</td>
<td>the risk of death</td>
</tr>
</tbody>
</table>


VACCINATION REDUCES COVID-19 REINFECTION

Among individuals with previous COVID-19 infection, the unvaccinated were 2.3 times more likely to experience reinfection compared with those who were fully vaccinated.


STATE VACCINATION RATES: IMPACT ON CHILDREN

In August 2021, hospitalizations for children up to age 17 were 3.7 times higher in states with the lowest vaccination rates compared with states with the highest vaccination rates.


PHYSICIAN VACCINATION RATE

96% of U.S. physicians were vaccinated as of June 2021.

“The top health industry issues of 2021: Will a shocked system emerge stronger?” PwC’s Health Research Institute, April 2021. © PwC. Not for further distribution without the prior written permission of PwC. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.

Emergency use authorizations (EUAs)

EUAs RISE SHARPLY

| EUAs issued by the Food and Drug Administration (FDA) between 2010 and 2019. | 23 |
| EUAs issued by the FDA between Feb. 1 and Oct. 28, 2020. | 342 |

IN VITRO DIAGNOSTIC PRODUCTS COMprise THE MAJORITY OF EUAs

84.5% In vitro diagnostic products
7.6% Ventilators and other medical devices
6.4% PPE and related medical devices
1.5% Drug and biological products

The AHA’s Vaccine Confidence Resources

Hospitals and health systems have an important role to play in providing the public with clear and concise information about the benefits of vaccination. The AHA provides resources to assist the health care field’s COVID-19 vaccination efforts.

Visit aha.org/vaccineconfidence.

The AHA Living Learning Network (LLN)

The LLN is a peer-to-peer community of health care professionals designed to discuss, ideate and reform health care in response to COVID-19 and prepare for future public health emergencies.

Visit aha.org/center/living-learning-network.
Hospitals and health systems need compassionate and skilled professionals to fulfill the core mission of caring for people. The pandemic has exacerbated the challenges already facing the health care workforce, including shortages and burnout. The AHA and its members are committed to supporting structural changes, resources for individuals and capacity-building measures to ensure a strong, resilient and diverse workforce.

Resiliency
FRONT-LINE HEALTH CARE WORKERS

- 62% report that worry or stress related to the pandemic has a negative impact on their mental health.
- 13% report they received mental health services or medication, and 20% report they thought they might need such services but did not get them.


Nurse leaders
SELF-REPORTED EMOTIONAL HEALTH

<table>
<thead>
<tr>
<th></th>
<th>% Responses Feb. 2021</th>
<th>% Responses Aug. 2021</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotionally healthy</td>
<td>51%</td>
<td>43%</td>
<td>-16%</td>
</tr>
<tr>
<td>Neutral</td>
<td>33%</td>
<td>32%</td>
<td>-3%</td>
</tr>
<tr>
<td>Not emotionally healthy</td>
<td>16%</td>
<td>25%</td>
<td>+56%</td>
</tr>
</tbody>
</table>


NURSES’ SENTIMENT TOWARD THEIR PROFESSION

The percentage of nurses who would encourage others to become a nurse

<table>
<thead>
<tr>
<th></th>
<th>May 2020</th>
<th>January 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40.4%</td>
<td>33.5%</td>
</tr>
</tbody>
</table>


Nurses consider leaving profession

22% of nurses may leave their current position providing direct patient care within the next year.

Top 3 factors influencing the decision to leave
- Insufficient staffing levels
- Demanding nature/intensity of workload
- Emotional toll of the job

Top 3 initiatives that could effectively support well-being
- More appropriate and sufficient recognition
- Open lines of communication
- Embedding more breaks and flexibility in operating model


TOP CHALLENGES DURING THE PANDEMIC

<table>
<thead>
<tr>
<th></th>
<th>% Responses July 2020</th>
<th>% Responses August 2021</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional health and well-being of staff</td>
<td>50%</td>
<td>75%</td>
<td>+50%</td>
</tr>
<tr>
<td>Surge staffing, training and reallocation</td>
<td>54%</td>
<td>61%</td>
<td>+13%</td>
</tr>
<tr>
<td>Staff retention, furloughs, layoffs</td>
<td>24%</td>
<td>47%</td>
<td>+96%</td>
</tr>
<tr>
<td>Communicating and implementing changing policies</td>
<td>55%</td>
<td>34%</td>
<td>-38%</td>
</tr>
<tr>
<td>Access to PPE</td>
<td>47%</td>
<td>14%</td>
<td>-70%</td>
</tr>
</tbody>
</table>

**Physicians**

**FREQUENTLY EXPERIENCE FEELINGS OF BURNOUT**

<table>
<thead>
<tr>
<th></th>
<th>Male physicians</th>
<th>Female physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>57%</td>
<td>69%</td>
</tr>
<tr>
<td>Male</td>
<td>64%</td>
<td>59%</td>
</tr>
<tr>
<td>Female</td>
<td>61%</td>
<td></td>
</tr>
</tbody>
</table>

**PHYSICIANS’ SENTIMENT TOWARD THEIR PROFESSION**

The percentage of physicians who would encourage others to become physicians

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>51%</td>
<td>46%</td>
</tr>
</tbody>
</table>


**MENTAL HEALTH AMONG PUBLIC HEALTH WORKERS**

53%

Public health workers who report experiencing at least one mental health condition.

- Experiencing post-traumatic stress disorder (PTSD): 36.8%
  - Respondents 29 or younger experienced the highest percentage of PTSD: 47.4%
- Public health workers who reported being unable to take time off from work were more likely to report adverse mental health symptoms.

**Survey conducted March 29 – April 16, 2021; respondents were asked to report symptoms in the preceding two weeks.**


**Shortages**

**Health care leaders’ perspective**

**COVID-19 IMPACT ON STAFFING SHORTAGES**

Health care executives were asked which current staffing shortages are worse than one year ago.*

**Nurses**

69%

**Behavioral and mental health providers**

32%

**Advanced practitioners**

25%

**Coding/Revenue-cycle experts**

21%

**Physicians**

20%

**IT-related experts**

19%

*Health care executives polled January – February 2021

- 90% of nurse leaders expect a nursing shortage post-pandemic.†

**NURSING VACANCY RATE IN HOSPITALS**

2021 average: 10%

Average time for a hospital to hire an experienced RN, regardless of specialty: 89 days

**NURSING SCHOOLS**

Enrollment in baccalaureate and graduate nursing programs increased by 5.6% in 2020.**

U.S. nursing schools turned away 80,521 qualified applications in 2020 due to an insufficient number of clinical sites and faculty as well as resource constraints.†

National nurse faculty vacancy rate: 7.2%.†

**Learn more about the AHA’s workforce agenda at aha.org/workforce.**
Health care employment trends

HEALTH CARE EMPLOYMENT GROWTH: PROJECTION 2020-2030

- Nurse practitioners: 45%
- Home health and personal care aides: 33%
- Physician assistants: 31%
- Respiratory therapists: 23%
- Medical assistants: 18%
- Registered nurses: 9%
- All occupations: 8%


U.S. PHYSICIAN PRACTICE OWNERSHIP

- Practices owned by hospitals/health systems: 24.3% (2019), 26.3% (2021)
- Practices owned by corporate entities: 22.1% (2019), 51% (2021)


PHYSICIAN EMPLOYMENT WITHIN PRACTICE

- Employee: 47% (2016), 50% (2020)
- Owner: 6% (2016), 6% (2020)
- Independent contractor: 6% (2016), 4% (2020)

Respondents were asked if they would sacrifice future earnings to work remotely.

REMOTE WORK: HEALTH CARE PROVIDERS

- % Employees on-site: 88% (Pre-pandemic), 57% (During the pandemic), 64% (Projected post-pandemic)
- % Employees hybrid: 6% (Pre-pandemic), 29% (During the pandemic), 18% (Projected post-pandemic)
- % Employees remote: 6% (Pre-pandemic), 14% (During the pandemic), 19% (Projected post-pandemic)

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Black physicians

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"Proportion of Black physicians in U.S. has changed little in 120 years, UCLA research finds," UCLA Health, April 20, 2021.

Future of work

2030 FORECAST: JOBS WILL REQUIRE DIFFERENT SKILLS

% Change in total hours worked by 2030

- Technology: 48%
- Social/emotional: 29%
- Higher cognitive: -2%
- Physical/Manual: -14%
- Basic cognitive: -6%


Remote work

GENERATIONAL DIFFERENCES

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COVID-19 Disparities

COVID-19 CUMULATIVE DEATH RATE PER 100,000 POPULATION

- All U.S. counties: 199 people
- Nonmetropolitan counties: 227 people

COVID CASES AND DEATHS BY RACE/ETHNICITY AS OF SEPT. 12, 2021

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% population</th>
<th>% cases</th>
<th>% deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>60.11%</td>
<td>51.0%</td>
<td>59.0%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>18.45%</td>
<td>27.4%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Black</td>
<td>12.54%</td>
<td>11.8%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Asian</td>
<td>5.76%</td>
<td>3.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>0.74%</td>
<td>1.1%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>0.18%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Multiple/Other, non-Hispanic</td>
<td>2.22%</td>
<td>5.3%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

SINCE THE BEGINNING OF THE PANDEMIC, PEOPLE IN HISTORICALLY MARGINALIZED COMMUNITIES WERE:

- **48%** more likely to have died from COVID-19.
- **28%** more likely to have been diagnosed with COVID-19.
- **23%** more likely to be in a COVID-19 hot spot.
- **17%** less likely to have been tested for COVID-19.
- **8%** less likely to have been fully vaccinated.


JOB LOSS INEQUITY IN 2020 (JAN. – NOV.)

- Black and Hispanic workers faced 1.6 to 2.0 times the unemployment rates compared with white workers.
- Households with less than $30,000 in annual income faced double the unemployment rates of higher-income households.
- Women accounted for 56% of workforce exits since the start of the pandemic, despite making up 48% of the workforce.


RURAL HEALTH CARE COVERAGE

1 in 5 Americans live in rural areas.*
1 in 3 Rural adults are enrolled in Medicare.*
1 in 6 Rural adults ages 19-64 are uninsured.*

NEARLY 25% of rural individuals younger than 65 are covered by Medicaid.†
22% of rural adults are dually enrolled in Medicaid and Medicare.†

*Rural Health Care

© 2021 American Hospital Association

He ongoing disproportionate impact of COVID-19 on structurally or historically marginalized communities has catalyzed hospitals and health systems to renew their commitment to promote racial justice and health equity. Health risks are associated with racial, ethnic, geographic, socio-economic and environmental factors. Advancing equitable practices are closely tied to the health care field’s core work of improving value, quality and patient safety.
Digital Health Equity

Current barriers to digital access

There are millions of individuals across the country who lack the technology, finances or digital health literacy needed to take advantage of digital solutions. While there have been gains in bringing high-speed broadband service to all Americans, a recent report from Microsoft estimates that 157.3 million Americans do not use the internet at broadband speeds. At the end of 2019, the Federal Communications Commission estimated that 14.5 million Americans lacked access to fixed broadband service at threshold speeds.

Even where broadband is available, there are millions of families that cannot afford it. According to estimates from the U.S. Census, 13.9% of urban households and 19.2% of rural households do not have a broadband subscription. Racial and ethnic populations, people living on tribal lands, older adults and people with lower levels of education and income also are less likely to have broadband at home.


RURAL HEALTH ACCESS

- 28% of rural Americans live in a county without a rural health clinic.*
- 6 out of 10 primary care health professional shortage areas are located in rural areas.*
- 47% of rural hospitals have 25 or fewer staﬀed beds.†
- As of September 2021, 138 hospitals have closed since 2010.‡

As the healthcare industry continues to be disrupted by the pandemic and many other hurdles, having the right leaders in place is more critical than ever. Consider these key areas as you build your own leadership investment strategy.

IDENTIFY NEW LEADERSHIP ATTRIBUTES

<table>
<thead>
<tr>
<th>Vision/Strategy</th>
<th>Communication</th>
<th>Agility</th>
<th>Integrity</th>
</tr>
</thead>
</table>

These attributes were listed as most in demand for today's executives.

CREATE NEW AND RE-ENVISION EXISTING ROLES

Entirely new positions and departments have emerged carrying titles such as Patient Experience, Transformation, Innovation, Population and others designed to align with current leadership realities. AMN survey data shows that executives listed the following as growing roles of importance:

GROWING ROLES OF IMPORTANCE

- Telehealth: 58%
- Clinical Leadership: 42%
- Behavioral Health: 28%
- Population Health Management: 26%
- Quality/Safety: 44%
- Patient Experience: 38%
- Value-Based Care: 26%
- Risk/Security: 19%
- Innovation: 18%
- Diversity: 18%
- Finance: 24%
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</tr>
</thead>
</table>

Actions for Effective Leadership

Investment Strategy

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- Value-Based Care: 26%
- Behavioral Health: 28%
- Population Health Management: 26%
- Innovation: 18%
- Diversity: 18%
- Risk/Security: 19%
- Clinical Leadership: 42%

TAKE A PORTFOLIO APPROACH

No one individual can exhibit strength in all of these desired competencies, so resist the temptation to pile up skill requirements when recruiting leaders. A coordinated portfolio perspective across the team can yield the right skill mix.

MANAGE TURNOVER & RETENTION

All healthcare organizations are facing increased turnover across the continuum. In addition to the obvious impacts of burnout and mental health, executives called our variables that most impacted their intent to remain with an organization:

<table>
<thead>
<tr>
<th>ORGANIZATIONAL CULTURE</th>
<th>COLLEAGUES</th>
<th>COMPENSATION PACKAGE</th>
<th>FLEXIBILITY</th>
<th>MANAGEMENT</th>
<th>CAREER POTENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>44%</td>
<td>43%</td>
<td>37%</td>
<td>35%</td>
<td>21%</td>
<td>19%</td>
</tr>
</tbody>
</table>

EXPAND LEADERSHIP RECRUITING EFFORTS

Our research consistently shows that finding quality candidates for leadership positions is difficult - 46% of respondents to our recent 2021 Healthcare Trends Survey Report rated the task extremely/very challenging.

Persistent shortages for some roles, candidate geographic mobility barriers, expanding role requirements - these and other variables can limit the pipeline. “Going wide” via aggressive recruiting using all available tools is clearly needed. Supplement traditional efforts with actions that promote search success such as:

- **Look outside the industry.**
  Executives from technology, retail, finance, and other sectors can bring leadership experience directly relevant to healthcare’s competitive, fast-changing market.

- **Shape a meaningful institutional “employment brand” that is attractive to leaders and may serve to overcome geographic and other recruiting constraints.**

- **Leverage interim leaders.**
  Experienced interims are a valuable investment, allowing time to conduct extensive searches while minimizing organizational disruption from executive vacancies.

HEALTHCARE’S TRUSTED PARTNER FOR INTERIM AND EXECUTIVE LEADERSHIP SEARCH SOLUTIONS

From interim leadership to executive search, we help healthcare organizations deliver on strategic objectives for patient care, growth and innovation. We are the market leader in interim search and the largest provider of interim, leadership, physician and executive search services, with a powerful track record of diverse placements across all specialty areas.

Visit www.BESmith.com or call 855.296.6318 for more information.
BROADBAND AFFORDABILITY

% of home broadband users who had trouble affording high-speed internet during the pandemic

<table>
<thead>
<tr>
<th>Income</th>
<th>Total</th>
<th>Income &gt; $75,000</th>
<th>Income &lt; $30,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td></td>
<td>34%</td>
<td></td>
</tr>
</tbody>
</table>


LACK OF COMPUTER ACCESS BY RACE/ETHNICITY

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White households</td>
<td>7.9%</td>
</tr>
<tr>
<td>Black households</td>
<td>12.2%</td>
</tr>
<tr>
<td>Hispanic households</td>
<td>17.0%</td>
</tr>
</tbody>
</table>


Social Determinants of Health

FOOD INSECURITY

<table>
<thead>
<tr>
<th>2019</th>
<th>2020 projection</th>
<th>2021 projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.9%</td>
<td>13.9%</td>
<td>12.9%</td>
</tr>
<tr>
<td>14.6%</td>
<td>19.9%</td>
<td>17.9%</td>
</tr>
</tbody>
</table>

Learn more about the AHA’s resources and framework addressing societal factors that influence health at aha.org/societalfactors.

Maternal Health

RATES OF SEVERE MATERNAL MORBIDITY

- **Increased by 9%** for all women from 2018 to 2020.†
- **63% higher** in majority Black communities than majority White communities in 2020.†
- **32% higher** in majority Hispanic communities than majority White communities in 2020.†
- Women in rural and underserved communities face additional risks and challenges that can lead to higher rates of maternal mortality and other severe health complications.†

Learn more about the AHA’s Better Health for Mothers and Babies initiative at aha.org/advocacy/maternal-and-child-health.

Gun Violence

COST OF GUN VIOLENCE

$1 MORE THAN BILLION ANNUALLY

Initial hospital costs of gun injuries. Costs associated with physicians’ fees not included could add 20% to that total.

ELECTRONIC HEALTH RECORDS SHOW INCREASE IN FIREARM INJURIES

- **73%** increase in 2020, compared with 2018 and 2019.
- From March 2018 to April 2021:
  - Increased between **76% and 89%** for communities of color.
  - Increased **40%** for the White population.
  - Black male patients ages 18 – 34 experienced more firearm incidents than patients from other groups.

Learn more about the AHA’s Hospitals Against Violence initiative at aha.org/violence.


BEHAVIORAL HEALTH

Hospitals and health systems provide essential behavioral health care services to millions of Americans. The pandemic will have a long-term effect on people's mental health and the behavioral health ecosystem. The health care field is stepping up to improve access to care, including the integration of physical and behavioral health services, community partnerships to expand the care continuum, suicide prevention and stigma reduction.

Mental Health and Lifestyle

COVID-19 AND MENTAL HEALTH

40.9% of adults reported at least one behavioral condition related to the pandemic, including symptoms of anxiety, depression, trauma or stress-related disorder, or having started or increased substance use to cope with stress or emotions related to COVID-19.

PANDEMIC IMPACT ON HEALTH & LIFESTYLE

<table>
<thead>
<tr>
<th></th>
<th>% Increase: All respondents</th>
<th>% Increase: Men</th>
<th>% Increase: Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>37%</td>
<td>32%</td>
<td>40%</td>
</tr>
<tr>
<td>Stress</td>
<td>35%</td>
<td>31%</td>
<td>38%</td>
</tr>
<tr>
<td>Weight gain</td>
<td>33%</td>
<td>31%</td>
<td>34%</td>
</tr>
<tr>
<td>Nicotine</td>
<td>21%</td>
<td>28%</td>
<td>17%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>20%</td>
<td>28%</td>
<td>15%</td>
</tr>
<tr>
<td>Opioids</td>
<td>10%</td>
<td>15%</td>
<td>7%</td>
</tr>
</tbody>
</table>


ACCESS TO MENTAL HEALTH SERVICES

32% of adults say they needed but were unable to get mental health services from March 2020 to March 2021.

THE MAIN REASONS ADULTS DID NOT RECEIVE MENTAL HEALTH SERVICES

<table>
<thead>
<tr>
<th>Reason</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could not find a provider</td>
<td>24%</td>
</tr>
<tr>
<td>Could not afford the cost</td>
<td>23%</td>
</tr>
<tr>
<td>Too busy/could not get time off work</td>
<td>18%</td>
</tr>
<tr>
<td>Insurance did not cover it</td>
<td>10%</td>
</tr>
<tr>
<td>Afraid or embarrassed to seek care</td>
<td>5%</td>
</tr>
</tbody>
</table>


CAREGIVERS’ MENTAL HEALTH DURING THE PANDEMIC

- Parents and/or caregivers of adults
- Nonparent/noncaregiver

Any adverse mental health symptom

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
</tr>
</tbody>
</table>

Anxiety or depression

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>55%</td>
</tr>
</tbody>
</table>

COVID-19 trauma and stressor-related disorders

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>54%</td>
</tr>
</tbody>
</table>

Passive suicidal ideation

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>39%</td>
</tr>
</tbody>
</table>

Serious suicidal ideation

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
</tr>
</tbody>
</table>


MENTAL HEALTH PROFESSIONAL SHORTAGE

- There are more than 5,800 mental health professional shortage areas in the U.S.
- The shortages impact nearly 129 million Americans.

LONELINESS IN THE U.S. DURING THE PANDEMIC

% of respondents reporting serious loneliness

<table>
<thead>
<tr>
<th>Across all groups</th>
<th>Top respondent groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>36%</td>
<td>61%</td>
</tr>
<tr>
<td>Ages 18-25</td>
<td>Mothers of young children 51%</td>
</tr>
</tbody>
</table>

- Loneliness is linked to early mortality, depression, anxiety, heart disease, substance abuse and domestic abuse.


HISTORICALLY UNDERREPRESENTED POPULATIONS

U.S. adults reporting more stress and mental health challenges within the past year (June 2021)

<table>
<thead>
<tr>
<th>Populations</th>
<th>% reporting an increase of challenges</th>
<th>% receiving treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGBTQ+</td>
<td>49%</td>
<td>41%</td>
</tr>
<tr>
<td>Black</td>
<td>46%</td>
<td>21%</td>
</tr>
<tr>
<td>Native American</td>
<td>45%</td>
<td>24%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>42%</td>
<td>26%</td>
</tr>
<tr>
<td>Asian American</td>
<td>40%</td>
<td>11%</td>
</tr>
<tr>
<td>All adults</td>
<td>40%</td>
<td>24%</td>
</tr>
</tbody>
</table>

- The top obstacles for seeking treatment: Cost and insurance coverage

*National Council for Mental Wellbeing: Minority Mental Health Month Polling.* Poll conducted by Morning Consult and released by the National Council for Mental Wellbeing, July 21, 2021.

Delivery model strategies to increase coordination and integration of behavioral health care

- Include behavioral health in value-based payment or total cost of care models.
- Support new provider partnerships.
- Eliminate regulatory barriers to care coordination.
- Reimburse for transitional care.
- Provide access to the full continuum of services including inpatient and residential behavioral health care.
- Provide funding for infrastructure development.
- Encourage greater availability of telepsychiatry.
- Address inadequate reimbursement and workforce shortages, and fully implement the mental health parity law.


LGBTQ+ YOUTH AND MENTAL HEALTH

- 70% stated that their mental health was poor most of the time or always during COVID-19.
- 42% seriously considered attempting suicide in the past year.
- 48% reported they wanted counseling from a professional in the past year, but were unable to receive it.
- 30% experienced food insecurity in the past month.

*National Survey on LGBTQ Youth Mental Health 2021,* The Trevor Project, May 2021.

Drug overdoses and opioids

EMERGENCY DEPARTMENT VISITS INCREASE

Increase in emergency department visits for opioid overdoses in the U.S. in 2020.


DRUG OVERDOSE DEATHS INCREASE*

![Drug Overdose Deaths Increase Chart]

- Highest number of overdose deaths ever recorded in a 12-month period and largest increase since 1999*


Learn more about the AHA’s behavioral health resources at aha.org/behavioralhealth
The pandemic has spurred a national conversation about how to strengthen the health care system. To create a reimagined health ecosystem, individuals and communities need to be able to access and afford health care. Health coverage opens the door to health care services. For people who have this access, cost can still be a barrier to essential services. The AHA and its members are working to preserve and expand access to high-quality, equitable, affordable care.

**Coverage**

**AFFORDABLE CARE ACT (ACA) ENROLLMENT**

Total ACA-related enrollment: marketplace, Medicaid and the basic health program.

*Record high, does not include totals from the special enrollment period Feb. 15 - Aug. 15, 2021.*

*Health Coverage Under the Affordable Care Act: Enrollment Trends and State Estimates,* Assistant Secretary for Planning and Evaluation, Office of Health Policy, June 5, 2021.

<table>
<thead>
<tr>
<th>Year</th>
<th>ACA Enrollment (Record high)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12,599,133</td>
</tr>
<tr>
<td>2020</td>
<td>27,081,972</td>
</tr>
<tr>
<td>2021</td>
<td>30,992,478</td>
</tr>
</tbody>
</table>

**ACA SPECIAL ENROLLMENT PERIOD**

**2.8 MILLION**

Number of people who enrolled in the ACA during the special enrollment period from Feb. 15 - Aug. 15, 2021.

*Includes enrollment in federally facilitated and state-based marketplaces.*


As of April 2021:
- A record high **82.3 million** people are covered through Medicaid and CHIP.
- Children represent **48.5%** of the total Medicaid and CHIP program enrollment.

*April 2021 Medicaid and CHIP Enrollment Trends Snapshot,* CMS Center for Medicaid and CHIP Services, Sept. 15, 2021.
Prescription Drugs

**AFFORDABILITY**

U.S. adults were surveyed about the cost of prescription drugs.

- **83%** report that the cost of prescription drugs is unreasonable.
- **26%** say it is difficult to afford the cost of their medicine.
- **29%** do not take their medicine as prescribed due to costs.


**PRESCRIPTION DRUG PRICES HIGHER IN THE U.S.**

Results of an analysis of 20 brand-name prescription drugs among the highest expenditures in the U.S. Medicare Part D program:

- U.S. prices paid at the retail level by consumers and other payers were more than two to four times higher than prices in Australia, Canada and France.


**AMERICANS WANT NEGOTIATION**

**74%** of Americans feel the federal government should directly negotiate with pharmaceutical companies to reduce the cost of prescription drugs.


Learn more about the AHA’s leadership on the issues of affordability and value through The Value Initiative at aha.org/value-initiative

Consumers

**ABILITY TO AFFORD HEALTH CARE**

Over a 12-month period, which covers the first full year of the COVID-19 era, **18% of U.S. adults** and **35% of low-income earners** report that they or a member of their household did not seek treatment for a health problem due to cost of care.

**% OF U.S. ADULTS UNABLE TO AFFORD QUALITY CARE IF NEEDED TODAY**

<table>
<thead>
<tr>
<th></th>
<th>U.S. total</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>18%</td>
<td>29%</td>
<td>21%</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>


**REDUCTION IN HOUSEHOLD SPENDING DUE TO COST OF CARE**

U.S. adults who reduced spending due to cost of care did so on the following household items:

- **Recreational or leisure activities**
- **Clothing**
- **Food**
- **Over-the-counter drugs**
- **Utilities**

<table>
<thead>
<tr>
<th>Category</th>
<th>U.S. total</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational or leisure activities</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over-the-counter drugs</td>
<td>11%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**TOP FACTORS CONSUMERS CONSIDER WHEN DECIDING WHERE TO SEEK CARE**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>55%</td>
</tr>
<tr>
<td>Convenience</td>
<td>43%</td>
</tr>
<tr>
<td>Cost</td>
<td>37%</td>
</tr>
</tbody>
</table>

**PATIENT CHALLENGES**

Providers said that all or most of their patients are facing a significant challenge with:

- **Prescription drug pricing**
- **Financial security**
- **Insurance limitations**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription drug pricing</td>
<td>44%</td>
</tr>
<tr>
<td>Financial security</td>
<td>40%</td>
</tr>
<tr>
<td>Insurance limitations</td>
<td>40%</td>
</tr>
</tbody>
</table>

employers and employees

**Medical Cost Trend Estimate**

Medical cost trend is the projected percentage increase in the cost to treat patients from one year to the next, assuming benefits remain the same. It impacts commercial insurers’ plans and is used to calculate premiums for the coming year.

**Potential Catalysts of Increased Health Care Spending in 2022**

- Some care deferred during the pandemic returns in 2022.
- COVID-19 costs (i.e., testing for COVID-19, treating patients and administering vaccinations) likely will persist.
- The mental health and substance-use crises will persist.
- Poor pandemic-era behaviors may lead to deterioration of U.S. population health.
- Preparation costs for the next pandemic including forecasting tools, supply chain, PPE, staffing and infrastructure changes.
- Addressing health disparities highlighted by the pandemic, including greater diversity in clinical trials and investment in social determinants of health.
- Improving patient relationships and expanding capacity through mobile apps, patient portals, CRM tools, virtual care and analytics.

**Potential Reasons for Decreased Health Care Spending in 2022**

- Consumers embrace lower-cost sites of care.
- Health systems find ways to provide more health care for less, including remote workforces, process automation and cloud technology.

*Medical cost trend: Behind the numbers 2022,* PwC’s Health Research Institute, June 2021.

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**Telehealth**

Virtual health care and business models are evolving, moving to a range of services enabling longitudinal virtual care, integration of telehealth with other virtual health solutions and hybrid virtual/in-person care models.

**PANDEMIC IMPACT ON TELEHEALTH**

**Telehealth Utilization:**

- April 2020: 78 times higher than pre-pandemic levels.
- February 2021: 38 times higher than pre-pandemic levels.

**Consumers:**

- 40% will continue using telehealth going forward.

**Physicians:**

- 58% view telehealth more favorably than they did before the pandemic.
- 84% offer virtual visits and 57% would prefer to continue offering virtual care.

CONSUMER USE OF TELEHEALTH

Surveyed U.S. adults who see a health care provider at least once a year (March 2021)

69% of U.S. patients report having seen a health care provider via telehealth since the pandemic began.

48% of U.S. patients would be likely to switch, or have switched, to a different provider if their current provider did not offer telehealth appointments.

March 2021 NextGen survey conducted by The Harris Poll among 1,733 U.S. patients 18+. “National Survey Shows Online Access and Telehealth are Keys to Patient Loyalty,” May 20, 2021. For further information on the survey, contact tstegmaier@nextgen.com.

MINDMAP PROVIDERS OFFERING TELEHEALTH:
Before the pandemic
18%
Six months into the pandemic
64%

MINDMAP TELEHEALTH ACCESS
27% of beneficiaries participated in a telehealth visit

Method of communication

56% Telephone
28% Video
16% Both


Telehealth: Health care provider perspective

Top areas for future telehealth expansion
- Chronic care management
- Mental/behavioral health
- Urgent care
- Primary care

Top barriers to advancing telehealth
- Patient access to technology
- Uncertainty around reimbursements
- Clinical workflows/integration into the electronic health record
- Rural access to broadband


Telehealth insurance claims

CLAIMS INCREASE

Increase in telehealth insurance claims from March 2019 to March 2020

4,347%


SHARE OF TELEHEALTH OUTPATIENT AND OFFICE VISIT CLAIMS — TOP SPECIALTIES

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatry</td>
<td>50%</td>
</tr>
<tr>
<td>Substance-use treatment</td>
<td>30%</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>17%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>17%</td>
</tr>
</tbody>
</table>


Learn more about the AHA’s telehealth resources at aha.org/telehealth

Technology

Consumer sentiment: Digital technology

WEARABLE TECH AND HEALTH DEVICES

36% Own a wearable health device or use a smartphone to track wellness

50% Would allow information to be sent directly from the device to their doctor’s office

57% Believe the data are useful and want them collected by their doctor

SOCIAL MEDIA

72% of Americans have some type of social media profile

62% Trust the information they get from social media, if it comes directly from health care providers

INTERNET

Google processes about 70,000 health-related search queries every minute.

VENTURE CAPITAL INVESTMENT INTO THE DIGITAL HEALTH SPACE

$7.9B  $14.6B  $21.3B

0  $5B  $10B  $15B  $20B  $25B


U.S. patients

REMOTE PATIENT MONITORING-UTILIZATION FORECAST (IN MILLIONS)

30M  20M  10M

23.4M  30.0M  28.2%

2020  2024

Health systems and AI

50% of health care leaders report using AI to help manage COVID-19. Examples include:

- Clinical decision support.
- Bed management, device management and staffing.
- Analytics and assessment.
- Tracking ICD-10 codes to find at-risk individuals.
- Contact tracing.

Top uses of AI

- Clinical decision support: 61%
- Dictation assistant or transcription: 50%
- Diagnostic medical imaging: 48%

Planning to leverage AI for:

- Virtual assistant: 41%
- Revenue-cycle management: 38%
- Fraud detection: 28%


2020 2024

$7.13M  $9.23M  29.5%

COST OF A DATA BREACH

For 11 consecutive years, health care had the highest industry cost per breach.


Learn more about the AHA’s cybersecurity resources at aha.org/cyberrisk

Healthcare hackings/It Incidents

The number of records breached per incident is increasing.


Cybersecurity

AI AND CYBER DEFENSE

20% of executives in health care reported seeing benefits from using artificial intelligence in cyber defense.

“Medical cost trend: Behind the numbers 2022,” PwC’s Health Research Institute, June 2021. © PwC. Not for further distribution without the prior written permission of PwC. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.

TELEHEALTH CYBERSECURITY CHALLENGES

<table>
<thead>
<tr>
<th>Challenge</th>
<th>% Increase in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website/internet-protocol malware security alerts</td>
<td>117%</td>
</tr>
<tr>
<td>Security patching of known vulnerabilities</td>
<td>65%</td>
</tr>
<tr>
<td>Endpoint vulnerabilities that enable data theft</td>
<td>56%</td>
</tr>
<tr>
<td>File-transfer protocol vulnerabilities</td>
<td>42%</td>
</tr>
</tbody>
</table>


AUTOMATION OF ADMINISTRATIVE TASKS

73% of health care provider executives said their organizations are working on improving the clinician experience by automating administrative tasks.

“Top health industry issues of 2021: Will a shocked system emerge stronger?” PwC’s Health Research Institute, April 2021. © PwC. Not for further distribution without the prior written permission of PwC. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.

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Delivery and Payment Models

Accountable Care Organizations (ACOs)

Organizations participating in value-based payment arrangements during the pandemic had greater financial resilience and flexibility to provide care through novel approaches. They had developed organizational competencies they could redeploy during a public health emergency.

ACO TRENDS AND LIVES COVERED: ALL PAYERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of ACOs</th>
<th>Total lives covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1,015</td>
<td>37,113,213</td>
</tr>
<tr>
<td>2019</td>
<td>950</td>
<td>37,214,760</td>
</tr>
<tr>
<td>2020</td>
<td>990</td>
<td>36,848,375</td>
</tr>
<tr>
<td>2021</td>
<td>956</td>
<td>36,254,938</td>
</tr>
</tbody>
</table>

ACO ENTRANTS AND EXITS: ALL PAYERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of ACO entrants</th>
<th>Number of ACO exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>122</td>
<td>72</td>
</tr>
<tr>
<td>2019</td>
<td>59</td>
<td>77</td>
</tr>
<tr>
<td>2020</td>
<td>61</td>
<td>36</td>
</tr>
</tbody>
</table>

ACO CONTRACTS BY PAYER

- Total contracts
- Medicaid contracts
- Medicare contracts
- Commercial contracts

Team-based care

The pandemic is a pivotal event that may have lasting influence on core values and attitudes toward teamwork and interprofessional practice.

IMPROVED OUTCOMES AND COST REDUCTIONS ASSOCIATED WITH INTERPROFESSIONAL COLLABORATIVE PRACTICE

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient charges</td>
<td>48.2%</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>17.7%</td>
</tr>
<tr>
<td>Emergency department visits</td>
<td>16.7%</td>
</tr>
<tr>
<td>Hemoglobin A1c levels</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Note: The average number of contracts per ACO has increased slightly from 1.6 in Q1 2018 to almost 1.8 in Q1 2021.

Data from Muhlestein, David et al. “All-Payer Spread Of ACOs And Value-Based Payment Models In 2021: The Crossroads And Future Of Value-Based Care,” Health Affairs Blog, June 17, 2021. doi: 10.1377/hblog20210609.824799.

Health Care Executives’ Perspective

58% of providers already participating in at-risk or value-based programs plan to add value-based contracts within the next 12 months.

85% report that the pandemic accelerated the need for health care delivery innovation.


INNOVATION AND DELIVERY TRANSFORMATION

The AHA Center for Health Innovation provides resources that address innovation capacity, digital transformation, population health and performance improvement.

Learn more about the AHA Center for Health Innovation at aha.org/center.
Hospital-at-Home (HaH)

**Hospital-at-Home: Success factors**

The pandemic and associated public health emergency amplified the need for providers to increase capacity to provide safe care outside the hospital setting. Recent regulatory flexibilities allowed for providers to leverage the latest innovations to pursue this aim. In addition to telehealth, some providers were able to implement or expand hospital-at-home programs.† HaHs have existed since the mid-1990s. Various studies have shown that HaH is feasible, safe, highly satisfactory and cost-effective. Success factors include:†

- **People:** Well-coordinated multidisciplinary team that includes clinical teams, suppliers, nursing care coordinators and supporting nonclinical staff.
- **Processes:** Patient screening and enrollment, care delivery protocols including daily virtual and in-person check-ins and escalation of care.
- **Technology:** EHR, home-monitoring tools, telehealth and a communication platform.
- **Supply chain:** Service provider partners and goods such as medical equipment, oxygen, medicines and food.
- **Analytics:** Quality metrics and cost data.


**HOSPITAL-AT-HOME EXPANSION**

Health care strategists were asked about their likelihood of incorporating HaH services by 2027 for at least 50% of stable, chronically ill patients.

- **Already happening:** 3%
- **Neutral:** 19%
- **Very likely/likely:** 53%
- **Very unlikely/unlikely:** 25%


Learn more about the AHA’s hospital-at-home resources at aha.org/hospitalathome
Re-imagining health care while co-existing with COVID-19

Q: What is the most critical issue facing hospitals as we head into 2022?
A: The hospital field continues to face many challenges brought on by the pandemic. We need to vaccinate more people and strengthen our supply chain. Hospitals and health systems need financial stability to be able to care for our nation’s patients and communities. However, I believe workforce challenges are the most pressing issue facing our members at this moment. We know that workforce supply and resiliency were fragile before the pandemic. Now we are in a critical situation.

As the Environmental Scan indicates, 62% of front-line health care workers report that stress related to the pandemic has had a negative impact on their mental health. The use of agency and temporary labor has increased greatly, as has turnover in the emergency, intensive care unit and nursing departments. Some hospitals had to decrease the number of available hospital beds or turn to federal or state government resources to support their workforce needs.

We know that people are at the heart of high-quality, compassionate care. The AHA is working with members to keep the workforce safe, healthy and fulfilled. Members are enhancing resiliency programs, adjusting staffing models, reskilling employees, strengthening team dynamics and maximizing technology to improve workflows and patient care. Through advocacy work, strategic partnerships and diversity initiatives, we’re working to increase the health care workforce pipeline. We need to continue to support, develop, rebuild and redesign our workforce now and for years to come.

In addition to workforce resources located at aha.org/workforce, the AHA collaborates with physician and nurse leaders through the AHA Physician Alliance and the American Organization for Nursing Leadership to tackle these challenges and develop forward-thinking solutions.

Q: How has the pandemic changed the AHA’s strategic planning?
A: Our strategic plan incorporates lessons we’ve learned from our experiences with COVID-19. In addition to workforce issues, we’re building on our current initiatives to address behavioral health, health equity and affordability issues. The pandemic has highlighted new ways to connect with patients and heightened our focus on the consumer experience, digital engagement and data analytics. We’re working to improve the sustainability of hospitals and health systems, explore innovative delivery models and enhance our collaboration with community and public health entities.

Multiple AHA governance and leadership groups contribute to our planning process and fine-tune our priorities. As hospitals have shifted in response to changing circumstances, so, too, will the AHA. Advocacy and Representation, Agent of Change, Thought Leadership and Knowledge Exchange are the principles through which the AHA will continue to provide a strong voice for our members while pursuing the AHA mission to advance the health of individuals and communities.

The pandemic created day-to-day operational challenges for the field, but it also has given us an opportunity to re-imagine the health care system. Our strategy must address both short-term and long-term issues. This is our time to hold meaningful dialogue, take substantial action and create positive change.
**FROM THE 2021 AHA CHAIR**

**Moving forward together with compassion**

“Though the COVID-19 pandemic has brought tremendous loss and has challenged our health care system like never before, I also firmly believe that it has been our finest hour. Teams in hospitals and health systems across the country have adapted, responded and persisted with great compassion. This is our strength and our path forward as we continue to improve health and well-being. Whether it’s vaccination education, health equity, new technology or taking care of the caregivers who put the heart in our hospitals, we always do our best work together. Rooted in our communities, we are evolving into a more resilient and resourceful health care system to the benefit of our patients and everyone we serve.”

---

**Take a Deep Dive into Rebuilding and Reimagining Health Care**

**Futurescan 2022-2027**

The AHA’s Society for Health Care Strategy and Market Development (SHSMD) offers a deep dive into key forces that are transforming the future of health care through Futurescan 2022-2027. Here is a sampling of insights from this thought leadership publication to help hospitals and health systems think strategically about these issues.

**Emergency Preparedness**

Hospital and health system leaders should view emergency management not as a peripheral function and cost center but rather as essential to quality management and safety. Emergency preparedness is an investment in overall hospital operations, resulting in process improvements that can positively impact efficiency, care flows, and interdepartmental working relationships. Many of the steps a hospital takes to become more efficient at disaster response are those that also improve overall efficiency, and therefore have a positive impact on daily operations.

*Gregory R. Ciottone, M.D., President, World Association for Disaster and Emergency Medicine*

**Virtual Health**

Telemedicine may be the most prevalent form of virtual health but will soon be far from the only one. As health care transitions to a value-based environment, virtual health will play a major role in containing costs and improving quality and access. By efficiently delivering care in the low-cost home or community setting, hospitals and health systems may be able to scale their services into at-risk contracts and share the significant savings with payers. Just as important, patients are ultimately healthier and stay in their own homes, improving their life experience. Telehealth and virtual care can address a lot of the inefficiency and inequity in care and access. If we get it right, we can put more affordable and accessible services in people’s hands.

*Randy D. Oostra, D.M., FACHE, President and CEO, ProMedica*

**Care Transformation**

C-suite executives need to recognize that health care is a service industry. Patients today are different than they were 20 years ago. They have more knowledge and access to technology, which they use to compare prices, convenience, services and more. What our health care customers want is kindness, punctuality, easy access and friendly staff. Quality is assumed. Digital strategies will become integral to serving consumers over the next five years. From online scheduling, texted appointment reminders and virtual check-in to the collection of health data online or via wearable technology, consumers are primed for digital-first encounters before they even see their clinicians.

*Michael Dowling, President and CEO, Northwell Health*

Learn more about these topics as well as additional trends by visiting [shsmd.org/futurescan](http://shsmd.org/futurescan).
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