The climate crisis and the Covid-19 pandemic are revealing limits to the economic, environmental, and social resources and systems on which society depends. These dual crises are driving increased demand for transparent, equitable, and sustainable enterprise and, consequently, a significant change in business strategy and operations. Corporations of all kinds are undertaking a new form of accounting that not only captures financial performance, but also measures efforts to mitigate the destructive impacts that business operations have on the environment and society. Many corporations, such as The Coca-Cola Company, now publish regular reports using standardized frameworks to communicate progress in sustainability initiatives. In contrast, the U.S. health care delivery system—a financial behemoth that generates substantial adverse environmental and social impacts—has yet to engage in this important practice. In this article, the authors discuss the numerous benefits to the U.S. health care sector from mandated participation in cutting-edge sustainability management and accounting.

Introduction

Coca-Cola is a globally distributed brand with products that contribute to the obesity epidemic, the plastic pollution crisis, and water scarcity in vulnerable communities, all of which harm human health.1–3 Yet The Coca-Cola Company does something that almost no U.S. hospital or health care system does—it systematically measures, manages, mitigates, and regularly publicly...
discloses verified data on the negative environmental and societal consequences of its business operations.

The company performed its first assessment of the environmental impact of its products, raw materials, and fuel use in 1969 and since 2005, has regularly published sustainability reports in alignment with the Global Reporting Initiative (GRI), the most commonly used sustainability reporting framework worldwide. The Coca-Cola Company’s 2020 report discloses quantitative progress toward mitigating greenhouse gas (GHG) emissions, plastic waste, the sugar content of its products, and water scarcity\(^4\) (Figure 1, Figure 2). The company also communicates how their sustainability efforts specifically help to achieve the 17 United Nations Sustainable Development Goals (UNSDGs) released in 2015 to define progress by governments, businesses, civil society, and the general public toward a healthy global community (Figure 3).

The Coca-Cola Company is not unique among large corporations. More than 90% of Standard & Poor’s 500 Companies annually publish sustainability reports, as do many private and nongovernmental entities.\(^5\) Finding detailed information on sustainability programs for hundreds of companies is as easy as a Google search.

The same cannot be said of U.S. health care organizations, in which there has been little engagement or disclosure utilizing currently accepted best practices in sustainability. This article reviews the current state of sustainability accounting and reporting and explores why the U.S. health care sector must rapidly adopt this common business practice.
Corporate Sustainability Is Well Established

The rapid and widening uptake of corporate sustainability practices and the associated reporting stems from three related factors: (1) global environmental megatrends such as climate change and loss of biodiversity and ecosystems that are forcing companies to address greater disruptions, scarcity, and higher costs; (2) rising interest among investors and lenders increasingly concerned about the potential financial impacts from environmental and social risks; and (3) increasing social pressure from corporate stakeholders such as consumers, investors, employees, regulators, policy-makers, lawmakers, governments, and communities.6

“Beyond the idea that addressing environmental and social externalities from health care is the “right thing to do,” growing evidence indicates that these efforts have significant and wide-ranging positive impacts on financial and business performance that can provide substantial cost savings, reduce risks, and improve numerous measures of corporate performance.”
Large asset owners and managers (e.g., BlackRock) are increasingly committing to investing in more sustainable companies through initiatives such as the United Nations’ Principles for Responsible Investment. In 2019, the Business Roundtable called for radical change when it released a new Statement on the Purpose of a Corporation. The organization, representing 200 of the largest U.S. corporations, reworked the definition of corporate purpose, which was traditionally understood to be returning profit to shareholders. The new statement declared that “companies must serve not only their shareholders, but also deliver value to their customers, invest in employees, deal fairly with suppliers, and support the communities in which they operate.” In line with this cultural shift, corporations are increasingly committing to science-based climate targets or to net-zero climate emissions and impact.

Science-based targets encompass a set of goals that a business develops to provide itself with a clear route to reducing GHG emissions. The goals are considered “science based” if they are developed in line with the scale of reductions required to keep global warming to less than 2°C above preindustrial levels.

Net zero is a balance between the amount of GHG produced and the amount removed from the atmosphere. Net zero is achieved when the amount added is no more than the amount taken away.
Commitment to sustainable enterprise is not limited to publicly traded companies. Many private companies, nongovernmental organizations (NGOs), and public sector entities now seek to demonstrate good corporate citizenship via environmental and social disclosures. Examples include Cargill, the largest American privately held company; NGOs such as the World Bank and Oxfam; and public sector entities such as the University of Michigan, the City of Chicago, and Amtrak.

These disclosures are commonly termed Corporate Social Responsibility (CSR) or Environment, Social, and Governance (ESG) reporting. Companies create these reports using frameworks promulgated by organizations such as GRI or the Sustainability Accounting Standards Board that provide guidance on how to organize, collect, track, and publish sustainability information. CSR and ESG are based on the Triple Bottom Line — People, Planet, Profit — an accounting concept that seeks to quantitatively measure the environmental and social costs, in addition to the financial costs, of business operations (Figure 4).

CSR is a self-regulating business model that helps a company describe how it is going to be socially accountable — to itself, its stakeholders, and the public — for its impacts on all aspects of society, including economic, social, and environmental. CSR presents the qualitative ideal of aspirations and goals toward a corporate culture of sustainability.

FIGURE 4

Triple Bottom Line: People, Planet, Profit Accounting

Triple bottom line accounting examples for health care delivery. DEI = diversity, equity, and inclusion.

Source: The authors

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ESG is the quantitative framework to measure and track outcomes that operationalize sustainability. Environmental criteria consider how a company performs as a steward of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities in which it operates. Governance deals with a company’s leadership, ethics, regulatory compliance, executive pay, audits, internal controls, and shareholder rights.

“Some individual health systems have demonstrated exemplary leadership in sustainable operations, though they do not provide consistent disclosures.”

ESG accounting provides assurance to stakeholders that negative environmental and social externalities are acknowledged as by-products of business activity; the corporate entity takes responsibility for these negative consequences; and efforts to measure, manage, and mitigate are part of routine business operations and are transparently communicated to all stakeholders. Most companies use third-party accounting firms to verify the accuracy of their ESG data.

Table 1. Selected Examples of ESG Categories Relevant to Health Care Organizations

<table>
<thead>
<tr>
<th>ESG Categories</th>
<th>Environmental (Planet)</th>
<th>Social (People)</th>
<th>Governance (Profit)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>* Waste and Pollution</td>
<td>* Diversity, Equity, Inclusion</td>
<td>* Corporate Ethical Behavior</td>
</tr>
<tr>
<td></td>
<td>* Energy Efficiency</td>
<td>* Safety &amp; Well-Being</td>
<td>* Corporate Governance Accounting/Tax Transparency</td>
</tr>
<tr>
<td></td>
<td>* Natural Resources</td>
<td>* Quality of Care</td>
<td>* Compliance</td>
</tr>
<tr>
<td></td>
<td>* Climate Change</td>
<td>* Human Rights &amp; Labor Standards</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>* Privacy &amp; Data Security</td>
<td></td>
</tr>
</tbody>
</table>

Example metrics and their mapping to UNSDGs for health care organizations

- Total annual GHG emissions, per employee and patient encounter (UNSDG 13: Climate Action)
- Total annual energy consumed, percentage of grid electricity, percent renewable (UNSDG 7 & 13: Affordable and Clean Energy, Climate Action)
- Total annual waste by weight, type, and disposition (e.g., on-site incineration, landfill, treatment/storage/disposal facility) (UNSDG 12: Responsible Consumption and Production)
- Description of climate risk policy/practices (e.g., infrastructure resiliency projects, compliance with CMS Emergency Preparedness Rule) (UNSDG 13: Climate Action)
- Number of hours/percentage of employees trained in antiracism (UNSDG 10: Reduced Inequalities)
- Number of employees leaving per total full-time employees
- Number of hours and expenses of safety training per employee (UNSDG 8: Decent Work and Economic Growth)
- Average Hospital Value-Based Purchasing total performance score, across all facilities (UNSDG 3: Good Health and Well-Being)
- Excess readmission ratio per hospital and payment adjustments as part of HARP
- Patient satisfaction score (UNSDG 3: Good Health and Well-Being)
- Percent total spend on community benefit and local/minority procurement (UNSDG T1: Sustainable Cities and Communities)
- Percentage of board diversity, DEI policies (UNSDG 5 & 10: Gender Equality & Reduced Inequalities)
- Total annual cost of fees/finances associated with Medicare and Medicaid fraud under False Claims Act (UNSDG 16: Peace, Justice and Strong Institutions)
- Number of ESG KPIs in annual report
- Executive pay: ratio and link to ESG performance

Table 1 provides a few general examples of ESG categories, metrics, key performance indicators (KPIs), and links to the UNSDGs potentially relevant for health care organizations.

**Moving to Mandated ESG Disclosure**

Despite broad participation in sustainability reporting by a wide variety of organizations, it remains a predominantly voluntary construct in the United States. However, the U.S. Securities and Exchange Commission (SEC), which regulates and enforces financial disclosures for listed companies, is considering potential ESG reporting requirements. This step follows recent European Union (EU) rules on financial disclosure of ESG topics.9

If the EU model is adopted here, publicly listed companies in the United States would be required to disclose ESG metrics, such as annual production of GHGs, air and water pollutants, and material waste; up-to-date risk assessments related to infrastructure damage from natural disasters; projections of potential climate risks that might affect company financial performance (e.g., stranded assets and supply chain disruptions); and clear corporate policies related to climate change (e.g., governance). SEC rules may also require companies to include data on social progress, such as human rights; workforce health, safety, and well-being; and diversity, equity, and inclusion (DEI).

While several hurdles exist to full accounting of ESG issues in financial statements — primarily related to the creation of accounting protocols, standards, and metrics that are uniform and widely accepted — the overall intent is to protect shareholders from these areas of growing financial risk and to create more comparable information to evaluate company performance and risk mitigation.

Action by the SEC would signal to all businesses, publicly held, private, and nonprofit, that economic enterprise must account for environmental and social impacts and demonstrate good governance. Lack of ESG action by nonprofits and public sector entities could limit access to capital markets, philanthropy, insurance coverage, affect business partnerships and influence bond ratings. (See Value Drivers for ESG: The Financial Benefits of Sustainability Management and Reporting for Health Care Organizations for further discussion.)

**Current Sustainability Efforts in the U.S. Health Care Delivery Sector: Alone Together**

Health care delivery is the largest source of U.S. jobs, represents 17.7% of gross domestic product, and results in $3.8 trillion in annual expenditures.10 The U.S. health care sector also generates substantial waste and pollution, including 8.5% of total U.S. GHG emissions and similar fractions of toxic air emissions, and is associated with health damages resulting in 388,000 disability-adjusted life years annually.11 But as Wall Street moves quickly ahead with ESG, the U.S. health care delivery sector lags far behind in terms of sustainability management and disclosure.12 Despite the sector’s inherent commitment to improving health, there are large gaps in information and little consistency or comparability in environmental sustainability
management and disclosure, and there is almost no accounting or reporting of social and governance performance.

"Unmeasured and unmanaged, climate risks to health care operations are substantial and, for some locations, perhaps existential."

At the leading edge, a few large U.S. health systems have published CSR reports consistent with current best practices using established frameworks (e.g., GRI) and disclosure platforms that

**FIGURE 5**

**Dignity Health Sustainability Report**

Dignity Health reported energy and greenhouse gas (GHG) metrics in their 2018 annual sustainability report. CO2e = carbon dioxide equivalents, CY = calendar year, EUI = energy use intensity, GRI = Global Reporting Initiative, LED = light-emitting diode, SF = square feet.

---

**Climate Resilience | Energy**

**Energy**

In 2017, we engaged in a lot of “set up” work, where we did our homework by implementing traditional retro-commissioning studies, worked intensively with IT to figure out how to deploy continuous commissioning, and got contracting together for dozens of LED lamp installations at numerous hospitals. All of this was in preparation to begin execution in CY 2018 to begin realizing the fruits of our labor in late CY 2018, and in CY 2019 fully. Hence, although we did not meet all the CY 2017 goals set, we finished the groundwork necessary to install energy and water efficient measures in CY 2018 and CY 2019. Additionally, new processes were put in place to ensure adequate capital dollars are allocated to energy efficient measures such as retro and continuous commissioning, interior lighting upgrades, and replacement of energy intensive equipment.

**Graphs:**

- **System Energy Use Intensity and % Cumulative Reductions**
  - CY10 to CY20
  - Goal: -20%

- **CO2e Emissions per SF and % Cumulative Reductions**
  - CY10 to CY20
  - Goal: -40%


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include ESG reporting. Reports from Cleveland Clinic (see Appendix) and Dignity Health, now part of CommonSpirit Health, are excellent examples that communicate quantitative information about corporate efforts to meet environmental (Figure 5) and social goals (see full discussion in Social Capital: ESG to Enhance the Health Care Workforce) and ensure ethical governance, (see Dignity Health Sustainability Report, pages 15-17).

Some hospitals and health systems have joined fee-based membership organizations that offer proprietary guidance on environmental sustainability operations, collect some facility-level environmental data, and provide green awards. The criteria for such awards are often unclear, unverified or undisclosed. For example, in 2018, Becker’s Hospital Review named the 68 greenest hospitals in America, although GHG emission information, the most basic measure of sustainable operations, was available for only seven of the awardees.13

Other hospitals have sustainability committees or employ a sustainability director or manager; however, according to the American Hospital Association, none have a Chief Sustainability Officer with direct access to the C-suite.14 Many hospitals have bottom-up recycling or waste-reduction programs driven by “champions” or “green teams” that rely heavily on passionate individuals to rally coworkers, as noted in the American Hospital Association’s Sustainability Roadmap.15 Despite uncertainty regarding the environmental footprint of health care products, health systems may select “sustainable,” “green,” or “environmentally preferable/friendly” purchasing options from vendors and group purchasing organizations. The lack of standards and oversight can foster greenwashing, the process of conveying a false or misleading impression about environmentally preferable characteristics of products or performance to gain a marketing advantage.

Some hospitals, at state or local urging, participate in voluntary emission-reduction programs. In New York City, for example, several health systems participate to some degree in the Mayor’s Carbon Challenge, which aims to significantly reduce carbon emissions from buildings. Many hospitals participate in the Environmental Protection Agency Energy Star Portfolio Manager benchmarking program and the American Society for Health Care Engineering Energy to Care program, which provide guidance on energy-saving measures and help energy managers track reductions in consumption, although few share these data publicly. Numerous case studies and analyses have demonstrated significant cost savings from improved environmental management in health care facilities.16-18

Some individual health systems have demonstrated exemplary leadership in sustainable operations, although they do not provide consistent disclosures. Among them is Kaiser Permanente, which eliminated its 800,000-ton carbon footprint through energy efficiency and purchased carbon offsets, reaching carbon neutrality in 2020, the first U.S. health system to do so.19

Spaulding Rehabilitation Hospital in Boston, MA, was built to withstand sea level rise, with a first floor above the flood zone and critical infrastructure placed on higher floors. This facility can remain fully operational during extreme storms and floods.20
While most hospitals do not provide quantitative information regarding sustainable operations, some declare commitments, goals, and/or achievements in marketing materials and/or sporadically and informally (e.g., press release or website) disclose progress toward a wide variety of environmental sustainability initiatives (Table 2).

Working groups and academics have explored pathways and roadmaps for decarbonizing the U.S. health care sector and moving it toward sustainable operations. Some call for action linked to the U.S. Centers for Medicare and Medicaid Services (CMS) reimbursement. Recently, as part of broader efforts to address climate-related health impacts, the Department of Health and Human Services (HHS) announced that new regulations to reduce health care emissions are likely and that it is working with the National Academy of Medicine Action Collaborative on Decarbonizing the U.S. Health Sector to identify pathways to operationalize sector-wide reductions. These efforts could be modeled on the existing Federal Government Sustainability Program, which has tracked and reduced emissions and waste in federal buildings, including Veterans Administration Medical Facilities, since 2007.

"VBC, SDOH programs, and ESG share a similar ethos and can be envisioned as concentric circles centered around the patient."

Nonetheless, there is no sector-wide push from academic or industry leaders, government, financial backers, regulators, lawmakers, or payors for mandated ESG participation by health care organizations that mirrors the sustainability revolution underway on Wall Street. A lack of clear guidance results in fragmented activity with scattered examples of environmental performance, mostly without verified supporting data. Practically speaking, this means that pollution, emissions, and waste are most likely unaccounted for and unmanaged by U.S. health care organizations.

Reasons for lack of engagement in ESG by the U.S. health care delivery sector have not been systematically explored, but barriers to participation may include: (1) the misperception that sustainability programs are costly or burdensome, especially for hospitals with slim operating
margins; this bias persists, even though sustainability programs can provide substantial cost savings/avoidance and improve a wide variety of measures of corporate performance (see full discussion in Value Drivers for ESG: The Financial Benefits of Sustainability Management and Reporting for Health Care Organizations); (2) the rapid pace of health system mergers and acquisitions can complicate efforts to undertake ESG accounting; (3) hospital executives tend to be recruited from within the health care industry and may be unfamiliar with or lack exposure to cutting-edge business practices emerging in other economic sectors; and (4) the sentiment that the enormous societal benefit of providing care exempts health care organizations from the perceived burden of reducing pollution, enhancing social infrastructure, or demonstrating good governance.

**Operational Drivers for ESG in Health Care: Keeping the Doors Open**

As critical as it is to reduce emissions, health care organizations also face the need to adapt all operations and systems to ensure doors remain safely open as the climate crisis worsens. The most recent Intergovernmental Panel on Climate Change report confirms that climate-related disasters are certain to escalate near term, leading to more hurricanes, floods, extreme precipitation events, wildfires, droughts, extreme heat and cold, infectious disease spread, political conflict, and forced migration. Hospitals provide life-supporting services in times of need and often are anchor institutions within their communities. When hospitals are damaged or unable to safeguard health care workers, their capacity to deliver care diminishes, compounding harms beyond employees to patients and their families and the communities they serve.

Extreme weather events and the Covid-19 pandemic have stretched U.S. health systems beyond capacity and brought the industry to an inflection point — how can care delivery systems operate safely and reliably in the face of converging and escalating threats, a portion of which is caused by their own activities? This is the exact challenge large corporations such as The Coca-Cola Company are confronting and a primary impetus for the rapid rise of ESG.

In 2015, the Financial Stability Board, an international body that monitors global financial systems, created the Task Force on Climate-Related Financial Disclosures (TCFD) to determine ESG metrics that best capture the financial, social, and physical infrastructure risks from growing climate instability. These metrics, in addition to current disaster-planning requirements (e.g., local/state regulations, CMS disaster-preparedness rules, and HHS Health Care Readiness Programs), would help hospitals recognize the totality of the risks they face as the climate crisis worsens.

Unmeasured and unmanaged, climate risks to health care operations are substantial and, for some locations, perhaps existential. Adapting physical and social health care infrastructure to climate change will require hyperlocal climate risk assessment (e.g., emergency management mapping inclusive of sea level rise) and a deep knowledge of the unique needs related to care delivery. ESG and TCFD climate-risk disclosures provide a framework around which health care organizations can strategically anticipate and manage threats from a rapidly destabilizing climate.
Mission Drivers for ESG: Getting to “Triple Aim” via the “Triple Bottom Line”

The mission of health care, the “why” — improve health — is nearly identical to the “what” — deliver care. Few economic endeavors can claim such a close alignment between product and purpose. The health care mission encompasses a triple aim: improving health outcomes and quality through improved patient experience, advancing population health, and reducing costs. A number of industry drivers for meeting the triple aim are shifting the care delivery landscape. Chief among these is value-based care (VBC), which seeks savings from improved health outcomes.

The current predominant payment model, fee-for-service, leads to overconsumption of health care and increased waste, costs, and pollution without necessarily improving health outcomes. Health care overuse and lack of preventive care resulting in poor health outcomes leads not only to higher direct health care costs, but also to indirect costs related to environmental and social damage, costs not captured in traditional accounting. ESG would provide the tools to expose the hidden or “true” costs associated with overuse, waste, pollution, and poor health outcomes, better aligning with VBC.

“The Covid-19 pandemic sheds new light on the importance of enhancing social infrastructure and investing in health care workforce safety and well-being.”

Parallel to and intertwined with the VBC trend is an increased emphasis on the social determinants of health (SDOH). Up to 80% of health outcomes are determined by social, behavioral, and environmental factors. This recognition has prompted health care spending totaling more than $2.5 billion in recent years toward addressing these factors: community programs related to housing, food insecurity, transportation, employment, local purchasing, and education. Such programs cement the broader role of health care organizations in society, help them meet their mission, and further the creation of healthy, sustainable communities.

VBC, SDOH programs, and ESG share a similar ethos and can be envisioned as concentric circles centered around the patient. ESG actions make up the outermost loop to close in meeting the health care mission and are consistent with the emergent concept of planetary health care that acknowledges the crucial links among ecological change, human health, and our ability to thrive.

Health care organizations have a duty to do no harm, or at least less harm, to the ecosystems on which we depend. ESG gives a more complete accounting of costs and benefits that can inform a wider range of strategic actions and accountability to avert harms and enhance population well-being, consistent with the planetary care framework (Figure 6).
Social Capital: ESG to Enhance the Health Care Workforce

Over time, the definition of sustainable enterprise has evolved from a primary focus on the environment to a broader consideration that also encompasses impacts on social systems and human capital, particularly workforces. The Covid-19 pandemic sheds new light on the importance of enhancing social infrastructure and investing in health care workforce safety and

FIGURE 6

Planetary Care Framework

Planetary care framework with three categories: reduce demand for health services, match supply of health services to demand, and reduce emissions from supply of health services.


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Social Capital: ESG to Enhance the Health Care Workforce

Over time, the definition of sustainable enterprise has evolved from a primary focus on the environment to a broader consideration that also encompasses impacts on social systems and human capital, particularly workforces. The Covid-19 pandemic sheds new light on the importance of enhancing social infrastructure and investing in health care workforce safety and
well-being. Covid-19 death rates in health care workers have been significantly higher among lower-paid workers of color who provided hands-on front-line care and critical support services.\(^\text{33}\) Safe worksites and DEI are core features of the “S” in the ESG framework. The Coca-Cola Company, like many large companies, discloses progress toward creating equitable, safe, and healthy workplaces and communities (Figure 7). Dignity Health has done the same (Figure 8).

*“ESG normalizes the concept that health care workers are human capital to be strengthened rather than cost centers to be driven down.”*

Workforce safety is more than just ensuring adequate personal protective equipment during a pandemic. Health systems must systematically analyze, account for, and fully disclose benchmarked actions that enhance the safety and well-being of workers, especially given the racial disparities in the health care workforce. The industry must make long-term investments that foster well-being and holistic resiliency. Newer ESG frameworks emphasize action and accounting on leading indicators of workforce well-being, such as preventive and health promotion programs, rather than on lagging indicators, such as simple accounting of injuries and
death. In addition to direct and indirect cost savings (Table 3), health care workforce engagement and well-being are linked to better patient outcomes.\(^{34}\)

ESG normalizes the concept that health care workers are human capital to be strengthened rather than cost centers to be driven down. Millennials — now the largest portion of the U.S. workforce — place greater emphasis on environmental and social values when making financial, educational, and employment decisions.\(^{35}\) They are highly sensitized to authenticity and likely to reject employment or educational opportunities with institutions that do not align with these values. ESG would give health care organizations a wider lens and more formal mechanisms by which to demonstrate strong ESG values that would maximize the recruitment, retention, and overall well-being of medical undergraduate and graduate trainees, high-value researchers, skilled staff, and allied health care workers.

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**Dignity Health Employee Well-Being**

Dignity Health measured employee well-being in their 2018 annual sustainability report. GRI = Global Reporting Initiative, VP = Vice President.

<table>
<thead>
<tr>
<th>Employees</th>
<th>Goals – Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does Dignity Health’s performance compare to industry benchmarks in key areas?</td>
<td></td>
</tr>
<tr>
<td>- Recruitment and development: No benchmark data available.</td>
<td></td>
</tr>
<tr>
<td>- Engagement and retention: Overall Dignity Health engagement score (76 percent favorable) is at Strategic Management Decision’s (SMD’s) 66th percentile benchmark of other health systems and independent hospitals.</td>
<td></td>
</tr>
<tr>
<td>- Diversity and inclusion: This past fiscal year there were 54 VP and above hires - 41 percent of our external hires were women and 24 percent were minorities or people of color.</td>
<td></td>
</tr>
<tr>
<td>- Wage equity: Overall, across our non-represented employee populations, Dignity Health pays about 5 percent above the market median. Overall, across our represented employee population, pay is about 12 percent above the market median.</td>
<td></td>
</tr>
<tr>
<td>- Health, safety, and wellness: Dignity Health’s health and welfare benefit programs are significantly above benchmark. We provide a fully employer-paid medical plan option for all employees, which is very unusual in the general employer landscape.</td>
<td></td>
</tr>
<tr>
<td>- Labor Relations: No benchmark data available.</td>
<td></td>
</tr>
</tbody>
</table>

**Engagement**

76% of our engagement questions scored favorably. Dignity Health has more highly engaged employees than 2 of 3 of others in the health care industry. Engagement is up 5 years in a row.

**Participation**

More than 9 out of 10 employees shared thoughts and ideas with us.

Value Drivers for ESG: The Financial Benefits of Sustainability Management and Reporting for Health Care Organizations

Beyond the idea that addressing environmental and social externalities from health care is the “right thing to do,” growing evidence indicates that these efforts have significant and wide-ranging positive impacts on financial and business performance that can provide substantial cost savings, reduce risks, and improve numerous measures of corporate performance. Climate change–related business risks and costs are increasing. Climate-driven severe weather events disrupt supply chains, physical infrastructure, and workforce and business operations; increase health risks (e.g., heat and infectious disease); and increase the costs associated with recovery management. Extreme events and climate-related disasters that cost at least $1 billion dollars have risen steadily over the past 20 years. 36

Hospital financing is complex, and accurate national financial accounting and disclosures are difficult to find. ESG could create greater transparency in hospital financial disclosures. The U.S.

Table 3. ESG Value to Health Care Organizations

<table>
<thead>
<tr>
<th>Value chain</th>
<th>Performance benefit</th>
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</thead>
</table>
| Direct/stewardship   | • Reduced costs from energy use and emissions intensity; water use; air treatment; and solid waste management  
                        • Reduced health insurance costs  
                        • Reduced forbearance costs (e.g., payment defaults related to inequality/financial stress)  
                        • Reduced costs from catastrophic events and recovery (e.g., infrastructure repairs, lost research/academic output, reduced workforce productivity/capacity, lost revenue due to closures/treatment delays, reduced demand for care due to migration)  
                        • Reduced legal risks/costs  
| Capital access/cost  | • Respond to pressure for ESG from wide range of investors  
                        • Alpha strategies (outperform the market)  
                        • Beta strategies (lower risk, diversify)  
                        • Improved corporate financial performance  
                        • Meet demand for good stewardship from donors, funders, municipal bond issuers, capital markets, philanthropy, contractors, business partnerships, local/state/federal governments  
                        • Improved bond ratings  
                        • Improved due diligence for mergers/acquisition  
| Intangible/reputation| • Enhanced brand/reputational value (80% stock market value linked to ESG)  
                        • Enhanced confidence/loyalty from patients, employees (current/potential), academic researchers, students, trainees, regulators, policy makers, communities, business partners and suppliers  
                        • Competitive advantage in multihospital system setting  
                        • Reduced risks from lower revenue, higher cost of employment (recruitment/retention), higher cost of goods and services, and reduced access to critical permits and operating constraints  
                        • Reduced risk to board from activists (e.g., link ESG performance to executive pay)  
                        • Reduced risk of stigmatization  
| Regulation           | • Enhanced regulatory compliance (current/future)  
                        • Reduced risk of fees/fines related to noncompliance  
                        • Stronger management of risks/opportunities (e.g., routine stakeholder feedback)  
                        • SEC ESG regulation and disclosure could apply to both profit and nonprofit health care organizations  

Internal Revenue Service requires nonprofit hospitals to demonstrate benefit by assessing community health needs every 3 years to maintain their tax-exempt status. ESG provides a framework for health care organizations to demonstrate their benefit to communities more broadly and holistically. ESG disclosures would appeal to a broad range of health care stakeholders, thereby enhancing community acceptance and facilitating licenses to operate, meeting local and state regulations related to public need and safety, staffing, and operational requirements. In addition to providing a tax advantage, ESG could benefit the health care organization value chain through four broad categories: direct/stewardship (cost savings), capital access/cost, intangible/reputation, and regulation (Table 3).

Integrating ESG into Health Care Operations

The U.S. health care sector must measure, manage, mitigate, and transparently disclose the negative environmental and social externalities associated with health care delivery and must prepare for rapidly escalating climate-related threats. The National Health Service (NHS) in England provides valuable inspiration — the first national health system to commit to carbon net zero. The NHS has tracked, managed, and reduced health care GHG emissions since a parliamentary mandate with the Climate Act of 2008 (Figure 9).37

FIGURE 9

National Health Service Greenhouse Gas (GHG) Emissions Time Series Results


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To achieve a similar outcome in the United States, all health care organizations must participate, and all relevant ESG data must be nonproprietary and assured by credible accounting firms. All hospitals, nonprofit, profit, and local/state-controlled, should, like The Coca-Cola Company, communicate ESG progress through annual publications. The industry’s current limited engagement in sustainability management and disclosure suggests that voluntary efforts will not meaningfully move the needle. Pathways and mechanisms to ensure participation and to operationalize ESG in the health care sector are outlined in Table 4. To avoid undue financial or administrative burden in operationalizing ESG, federally funded technical support, expert sustainability consulting and accounting services, and financial advising should be uniform and freely available to all health care organizations regardless of tax status.

Conclusions

Kaiser Permanente, Cleveland Clinic, and many other hospitals and health systems have demonstrated leadership in environmentally sustainable operations and inspire possibilities on a larger scale. Yet, without standardized metrics, outside assurance, and transparent disclosure, there is no way to verify the true impact or value of efforts, develop best practices to inform sector-wide actions, or ensure accountability. Voluntary efforts will inevitably wane and fall short of well-intentioned promises. A unified, sector-wide “all-in” mandate that incentivizes specific ESG actions and disclosures is the only way to rapidly operationalize and ensure enduring progress.

Organizational systems already exist in most hospitals that can capture ESG measures. For instance, many hospitals routinely convene environment of care committees for which measures

Table 4. Key Elements to Operationalize ESG in the U.S. Health Care Sector

| 1. Mandate participation for all U.S. health care organizations receiving federal funding through HHS. |
| Link ESG performance to CMS Conditions of Participation and reimbursements. |
| 3. Build on existing reporting frameworks (e.g., GRI, SASB, and TCFD) to create core health care ESG metrics for: |
| * Environmental impacts (reconciled with health outcomes), climate risks (e.g., climate modeling to determine hyperlocal risks to supply chains, physical and social infrastructure, and community resilience) |
| * Social impacts (e.g., workforce well-being, fair wages, and DEI) |
| * Governance (e.g., board diversity, ethics, link ESG performance to executive pay) |
| 4. Require third-party assurance of ESG measures through auditing that evaluates processes, systems, and data. |
| 5. Map ESG actions to the UNSDGs. |
| 6. Require public disclosure in a format consistent with currently available disclosure frameworks. |
| 7. Collaborate with public and private sector ESG and sustainability experts to bring best-practice sustainability science into hospital operations and care delivery. |
| 8. Fund academic research into sustainability science and health services research, including quality and safety. (Funding: Agency for Healthcare Research and Quality). |
| 9. Establish a national health care sustainability task force for oversight of all programs housed at HHS. |
| 10. Create a national data center, funded by and housed at HHS and tasked to: |
| * Capture facility- and system-level ESG data through the American Hospital Association/EPA Energy Star program for operations/infrastructure and CMS for clinical operations and outcomes. |
| * Develop baselines, benchmarks, KPIs, and best practices in ESG metric creation. |
| * Create and publish annually a Sustainability Scorecard for every facility and health system. |
| 11. Build sustainability science into allied health professional education. |
| 12. Encourage incorporation of ESG metrics into national health system rankings (e.g., U.S. News & World Report). |

ESG = Environment, Social, and Governance, HHS = Department of Health and Human Services, CMS = U.S. Centers for Medicare & Medicaid Services, GRI = Global Reporting Initiative, SASB = Sustainability Accounting Standards Board, TCFD = Task Force on Climate-Related Financial Disclosures, DEI = diversity, equity, and inclusion, UNSDG = United Nations Sustainable Development Goals, EPA = Environmental Protection Agency, KPI = key performance indicator. Source: The authors
of sustainable operations would make a natural fit. Similarly, human resource departments capture data that can illuminate ways to enhance workforce resiliency. Annual reports, already published by many hospitals and health systems, could be expanded to communicate to stakeholders environmental and social progress and policies for good governance. Creating uniformity in these disclosures will help track sustainability progress sector wide and reduce greenwashing.

Some might argue that more regulatory reporting is unfairly burdensome to health care institutions, especially because sustainability measures in general are evolving and greenwashing abounds. Metrics are an area of intense debate, especially when it comes to accounting for carbon embodied in the supply chain and developing measures that facilitate comparability within and among industries. Health care delivery has additional unique, but not insurmountable, sustainability challenges. Reconciling negative externalities to quantum of health delivered will be the most challenging, given that some environmental and social harms are simply unavoidable.

“The cost savings and performance improvements associated with ESG accounting should alone compel action.”

But the answer is not less engagement, rather more. The cost savings and performance improvements associated with ESG accounting should alone compel action. Engaging the health care sector’s enormous intellectual and financial capital could greatly contribute to sustainability science, particularly as it relates to direct and indirect impacts on ecosystems and human health — arguably the only metrics that matter. Consider the role medical academia could play in the emerging sustainability science that seeks to more fully understand and quantify positive restorative actions — so-called “handprints” — to offset harms from footprints. ESG would help move health care action upstream to disease prevention and health promotion, thereby reducing disease burden, improving health outcomes, and lowering health care costs and related environmental emissions and pollution and would realign health care delivery with its mission — the restoration and protection of human health.

Integrating a sustainability program into enterprise operations begins with a thorough analysis of all stakeholders within the sphere of corporate influence. This not only engages stakeholders, but also gives them a voice; consider the positive impact this would have on the health care workforce, which has faced the dual crises of the pandemic and extreme events. Meeting the challenge presented by the growing climate crisis requires accounting for and strengthening both social and physical infrastructure. Stakeholder analysis gives rich insight into operational strengths, weaknesses, risks, opportunities, and emerging trends.

Social and environmental data can inform the creation of strategic priorities; pinpoint areas in need of change; set baselines, benchmarks, and performance goals; and mark progress toward continual improvement. Good governance would ensure commitments are kept.

While many large corporations such as The Coca-Cola Company are working to create a more sustainable enterprise, no sector of society alone can stem the tide of converging threats. The
climate crisis is here; the pandemic persists; new threats loom. In 2019, the United States spent more on health care than did any other high-income country in the world, up to a third of which is waste — only to rank last in measures of health outcomes. Compounding this failure, the true costs associated with wasted care (pollution, extreme events, and social instability) are unmeasured and unmanaged. The U.S. health care sector can no longer afford not to act on sustainability. It is time for bold, collective action. Health care organizations must strive to be at least as good as a sugared beverage company when it comes to protecting people and the planet.

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**Appendix**

Cleveland Clinic 2020 Sustainability & Global Citizenship Report

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