Kaiser Permanente: Pioneering Sustainability in the Healthcare Sector

“Doctors swear an oath to “do no harm,” and the systems they work for must do the same... “do no harm” means taking action to: reduce the carbon footprint of health care facilities; use the voices of health care leaders and professionals to advocate for policies to address climate change; leverage health care’s purchasing power to transition to a clean, safe, and sustainable economy; and work with and in communities to build equity and resilience.”


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Overview of Kaiser Permanente

With origins back to the Great Depression as a hospital caring for workers of infrastructure projects, Kaiser Permanente has grown into one of the largest non-profit health plans and hospital systems in the United States.²³ The Kaiser Permanente (“Kaiser”) umbrella organization consists of Kaiser Foundation Health Plan, Inc., Kaiser Foundation Hospitals and its subsidiaries, and The Permanente Medical Groups. Headquartered in Oakland, California, Kaiser operates 39 hospitals and 734 medical offices and employs approximately 24,000 physicians, 65,000 nurses, and 219,000 employees. Kaiser was founded in 1945 and over time established eight regions, each with distinct provider networks: Northern California, Southern California, Colorado, Georgia, Hawaii, Mid-Atlantic, Northwest, and Washington. With nearly thirteen million members, Kaiser “exists to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.”⁴

According to Healthcare Finance, Kaiser’s 2021 financial performance was mixed, but still shows positive signs, amidst the disruption to healthcare delivery from COVID-19, an industry shift toward telemedicine, and Kaiser’s negotiations with the Alliance of Healthcare Unions to prevent a strike.⁵ According to Kaiser’s 2021 Financial Report, operating revenues were $93.1B, operating expenses were $92.5B, operating income was $611M, total other income and expenses were $7.5B (due to strong financial investments performance), and net income was $8.1B. Kaiser opened 11 new medical offices in 2021, with capital spending at $3.5B.⁶ Despite volatility in the U.S. healthcare sector over the past decade, Kaiser’s financial position demonstrates resilience, with a 7% compound annual growth rate in operating revenue over the 2012-2021 period.⁷

Kaiser follows an integrated business model wherein health care delivery and health coverage are managed by the same organization; this differs from the traditional model in the United States in which health care providers are separate from insurers and payers. Integrated health care has been lauded as a possible solution to the nation’s complex, fragmented care landscape. The advantages of integrated models are purported to include coordinated and efficient patient care, lower health care costs, and improved population health outcomes.⁸

Kaiser is a “membership-based, prepaid, direct health care system” where members “pay dues to access care and services that are coordinated across inpatient and outpatient settings, pharmacy,
The majority of Kaiser health plans are HMO (Health Maintenance Organization) plans, meaning that members must exclusively receive services from within the Kaiser network, except in the case of an emergency or approved exception. Care is coordinated within the Kaiser network by a member’s PCP (primary care physician); this can avoid challenges in the healthcare industry where members seek services from dispersed providers that do not communicate effectively with one another. Kaiser’s medical practitioners are usually paid via a capitation model; providers are paid per enrolled member rather than the fee-for-service model employed by many other health plans and providers. Because providers are paid in this manner, Kaiser physicians theoretically have a reduced incentive to perform unnecessary procedures, as they are not paid more for those additional services. Generally, members enrolled in HMO plans will have no (or a very low) deductible and set copays for services, making payment for medical care more predictable for the consumer.

Discussing Kaiser’s integrated health care model is critical because it helps us understand how sustainability has so successfully proliferated throughout the organization. An integrated health model requires collaboration, innovation, defined responsibilities, effective performance and financial management, mature information systems, incentive alignment, and trust. These qualities also serve to amplify, and are a prerequisite for, impactful sustainability initiatives.

Defining Sustainability

Kaiser aims to improve the health and wellbeing of surrounding communities through the eight areas of its Focus and Impact strategy, which includes a range of environmental and non-environmental factors: economic opportunity, safe and affordable housing, environmental stewardship, social health, safe and successful schools, policy solutions for cities, growth of Medicaid, and charity care.

Kaiser recognizes that human and environmental health are inextricably linked. Neighborhoods and the built environment are considered social determinants of health, or non-medical factors that impact health outcomes. Kaiser builds a strong case through its communication materials for connecting its success as a healthcare provider to the impact of its sustainability efforts in improving the health of surrounding communities.

Environmental stewardship is defined by the organization as “[minimizing] our environmental impact by reducing our use of natural resources (water, energy) and doing our part to improve the conditions caused by climate change that lead to poor health.” Kaiser’s definition includes standard elements such as climate action via carbon reduction programs and clean energy initiatives, safe and non-toxic products, sustainable food, waste reduction, water conservation, green buildings, and supply chain management. Non-standard elements include clinical practices to promote community health, mitigation of infectious disease spread, severe weather response,

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and collaboration on environmental progress with external stakeholders ranging from policy to finance to education professionals. Kaiser’s definition of sustainability demonstrates its holistic approach. Rather than only focusing on measuring and minimizing its negative environmental impact, Kaiser seeks to enrich and restore the neighborhoods it serves.

Kaiser’s sustainability strategy involves internal initiatives, supply chain management, and engaging its customers and stakeholders. Examples of internal initiatives include Kaiser’s ambitious company-wide goal to achieve carbon neutrality by 2020, a network of Kaiser “Green Teams” responsible for deploying sustainable practices across Kaiser facilities, and engagement programming that involves employees in waste reduction and recycling efforts, such as through Kaiser’s partnership with Goodwill. Kaiser manages its supply chain via its Environmentally Preferable Purchasing Initiative, wherein sustainability metrics must be evaluated and meet certain criteria in purchasing decisions.

Perhaps the most impressive part of Kaiser’s sustainability strategy is the way it involves its customers and stakeholders. Kaiser members are encouraged to dispose of unused medications in an environmentally-friendly manner via unused drug collection kiosks and mailers to help avoid medications that are thrown away and pollute water systems. With the installation of 500 electric vehicle chargers across 49 Kaiser locations, the hospital system enables its employees and customers to drive more sustainably. With the goal to accelerate the adoption of sustainable principles across the broader healthcare landscape, Kaiser engages with several organizations and industry groups, including Health Care Without Harm, U.S. Green Building Council, the California Health Care Climate Alliance, and the National Academy of Medicine’s Action Collaborative on Decarbonizing the US Health Sector. Kaiser published a “Path to Carbon Neutral Guide,” a detailed blueprint for how other organizations can build internal support for sustainable initiatives and adjust their activities to align with science-based targets. The comprehensive framework includes topics such as measurement best practices, energy efficiency and renewables, data services, sustainable food products, and staff engagement.

Kaiser also develops annual, publicly available Community Health Needs Assessments and Implementation Strategy Reports. These regional resources serve to inform investment and business decisions related to improving health outcomes and equity. The reports incorporate environmental and social factors such as pollution, food insecurity, healthy food accessibility, built environment analysis, and availability of parks and green spaces. Importantly, the reports

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15 “The Power of the Green Team at Kaiser Permanente Roseville.” n.d. [World.youtube.com](https://www.youtube.com/watch?v=4O75guXCP1g)
also address environmental racism; the Georgia region report, for example, details how exposure to flooding, extreme heat, and dangerous air pollution disproportionately impact communities of color. Beyond just identifying these trends, Kaiser’s Implementation Reports outline how the organization plans to specifically address these topics through community initiatives and revised clinical practices. This strategy would be strengthened by better tracking and periodic progress reports that measure the successes and failures of the proposed interventions.

Kaiser’s sustainability efforts are so numerous that it can fill a book. In her nearly 27 years with Kaiser Permanente, most recently as Vice President of Employee Safety, Health & Wellness, and as Kaiser’s Environmental Stewardship Officer, Kathy Gerwig spearheaded Kaiser’s path to carbon neutrality and wrote a book outlining how other hospital systems can do the same. *Greening Health Care: How Hospitals Can Health the Planet,* published in 2015, surgically examines every aspect of health facility design, supply procurement, and care delivery, from eliminating chemicals and toxins and conducting hospital waste audits to implementing on-site farmers markets and standardizing medical supply request-for-proposals.

The organization’s efforts to engage stakeholders and competitors via publications such as *Greening Health Care* not only garners significant press attention—its focus on collective progress can be compared to that of Allbirds or Patagonia, two companies who have worked to scale their impact throughout the apparel industry. Kaiser has redefined sustainability as a principle, not just a program, and cultivated a knowledge-sharing network to ensure that the transformation of the healthcare sector does not start and end within its walls.

**Strategy and Metrics**

Kaiser’s sustainability strategy traces back to the middle of the 20th century and has evolved to reflect the changing environmental priorities of the time. In the 1950s, Kaiser installed air pollution control equipment worth $5M at the steel mill that it initially performed health services for in Fontana, California. Kaiser’s Santa Clara Medical Center founded its Ecology Committee in the 1970s to educate employees on sound environmental practices. 1977 saw the installation of a solar water heating system at Kaiser’s Redwood City Medical Center, and 1980 brought an onsite solar thermal project to Santa Clara Medical Center. In 2003, Kaiser introduced a farmers market at Oakland Medical Center, the first in the nation. Kaiser implemented sustainability scorecards for suppliers in 2009 and 2010. During the 2010-2012 period, Kaiser added 11 megawatts of solar power across 12 California facilities and purchased 100% of energy for its Washington, D.C., and Maryland facilities from wind-generated sources in 2013.

Kaiser’s first emissions reduction commitment came in 2012, when it announced the intention to reduce greenhouse gas emissions by 30% by 2020 against a 2008 baseline. This ambitious goal was expanded in 2016 when Kaiser pledged carbon neutrality by 2020. In 2017, Kaiser’s San Diego Medical Center achieved LEED Platinum status. And in 2018, California’s first

renewable hospital microgrid was installed as the roof of Richmond Medical Center’s parking lot. Kaiser was awarded the EPA Green Power Leadership Award in 2019 for its multi-decadal efforts in expanding renewable energy.

In 2020, Kaiser’s most prominent environmental goal—carbon neutrality—was achieved and certified by The CarbonNeutral Protocol. The achievement applied to Scope 1, Scope 2, and select Scope 3 emissions, such as corporate travel. (Kaiser should aim to incorporate as many Scope 3 emissions as is feasible in future reporting, and has expressed the intention to do so.) The company focused on renewable energy procurement, on-site solar projects, and energy efficiency initiatives (resulting in 8% reduction in energy use intensity compared to 2013) coupled with carbon offsetting measures.

Looking forward, Kaiser set 2025 Environmental Stewardship goals across seven areas, described in the graphic below.

*Kaiser Permanente’s 2025 Environmental Stewardship Goals*

While five out of the seven goals are measurable, the strategy would benefit from specific metrics and descriptions for the Management & Accountability and Collaboration goals.

In June 2022, Kaiser joined the US Health and Human Services climate pledge and announced its goal to reduce its greenhouse gas emissions by 50% by 2030 and reach net zero emissions by 2050 by focusing on “purchased goods and services, investments, business-related travel and transportation, waste, and employee commuting.”

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To achieve these ambitious goals, Kaiser has strategically invested in diligent measurement frameworks to track sustainability progress. In 2008, Kaiser adapted the ISO 14001 standard to measure baseline conditions and form SMART goals in the areas of replacing harmful chemicals, addressing climate change, encouraging sustainable farming and healthier foods, waste elimination, and water conservation.\(^{26}\)

Additional measurement systems deployed include a utility bill payment system, the EPA’s Portfolio Manager tool and Energy Star rating system, Practice Greenhealth’s Energy Impact Calculator, The Climate Registry’s General Reporting Protocol, and process-based Life Cycle Assessments. Importantly, Kaiser does not operate in a silo. It leveraged research from the United Kingdom’s National Health Service to help identify Scope 3 emissions that were challenging to measure in its own assessments and joined the Healthier Hospitals Initiative. Kaiser compiles these rich data sources into an enterprise sustainability management software to organize its information and transform the data into insights.

Kaiser’s sustainability goals and measurement systems are very robust, particularly in emissions mitigation and waste reduction, but more attention should be paid to other environmental issues such as biodiversity loss and land use conversion. Incorporating sustainability metrics into employee performance reviews and compensation packages should be considered, if not already (it is not clear if this is in place from available research). Kaiser should also measure employee engagement and satisfaction with sustainability programming and education.

Efforts should continue to be directed at transforming health care delivery to match the digital age. Telemedicine, for example, eliminates the need to travel to appointments and therefore lessens transportation emissions. This point was reinforced in a Kaiser study which found that greenhouse gas emissions fell rapidly with the acceleration of telehealth, especially during the height of the COVID-19 pandemic.\(^{27}\) To remain at the forefront of sustainable progress, Kaiser should continually examine its goals to identify any gaps in its strategy.

To garner support for public goals and significant investment in measurement systems and infrastructure projects, Kaiser’s sustainability leadership demonstrated how its environmental stewardship efforts are critical to its overall organizational success—and bottom line. Kaiser saved $63 million in environmentally preferred supplier contracts from 2009-2012; beyond just saving money, these efforts resulted in less toxic materials used in clinical settings. Kaiser modified the “triple bottom line” theory—analyzing investments and outcomes through the lens of people, profit, and planet—into its own definition of “total health.” Sustainability projects that improve total health are considered a success. Kathy Gerwig reported that Kaiser was spending approximately $2B annually on environmental stewardship and community initiatives around 2015. This is not to say that Kaiser spends heavily on sustainability initiatives without regard to


return; Kaiser’s Vice President of Facilities Planning, John Kouletsis, notes that modification to hospital design must have a return of investment within three to four years.\textsuperscript{28}

It is not clear how Kaiser’s sustainability efforts have affected its consumer demand; health plan and provider selection is a very complicated landscape and consumers are often limited in their choices to the plans offered by their employer or the plans available via government exchanges. However, reputationally and financially, Kaiser has benefited from its impressive progress.

Relations with Suppliers

Kaiser implemented its Environmentally Preferable Purchasing (EPP) Initiative in 2006 to ensure that environmental impact is considered when selecting suppliers.\textsuperscript{29} The EPP Principles set expectations that suppliers should use safe chemicals, minimize pollutants and waste, responsibly dispose of unavoidable waste, source local and healthy foods, protect clean water, and promote renewable materials, land stewardship, clean energy, and energy efficiency. The Principles document also contains a list of chemicals such as bisphenols, mercury, and persistent bio-accumulative toxic chemicals that should be avoided.\textsuperscript{30}

In 2009, Kaiser launched a Sustainability Reportcard to collect data from suppliers on various environmental factors to streamline and standardize the request-for-proposal process. In 2017, Kaiser began mandating that its current and future supply partners meet its EPP Standard, which set strict chemical and waste criteria.\textsuperscript{31} To protect against greenwashing and monitor compliance, Kaiser leverages tools available from the EPA and Practice Greenhealth.

Kaiser has not allowed its diligent supply chain management strategy to inhibit its engagement with emerging technologies that have potential to make a positive climate impact. For example, Kaiser was one of the first customers of start-up Blue-Zone Technologies, a Toronto-based company with a proprietary process to capture and recycle waste anesthetic gases.\textsuperscript{32}

The success of Kaiser’s EPP program is partially enabled by its integrated healthcare model, in which communication and coordination is prolific throughout the organization and across roles and geographies. One barrier to the success of its supply chain management is Kaiser’s considerable size, which can serve to slow down purchasing decisions.\textsuperscript{33} As a benefit for the industry, Kaiser uses its purchasing power to push the healthcare supply chain toward greener practices and safer, non-toxic materials.

Importance of Sustainability: Environmental Stewardship is in Kaiser’s DNA

The importance of sustainability within the organization is clear. Kaiser leadership connected its sustainability mandate with the ethos of healthcare: do no harm. In 2003, Jay Crosson, M.D., at that time the director of The Permanente Federation and later Kaiser’s Director of Public Policy, relayed this belief to GreenBiz in an interview: “As physicians, we think the Hippocratic Oath says it all: Above all, do no harm. The credo applies to the environment as well as to our patients.”

Kaiser’s leaders communicate a consistent philosophy when speaking with the media and public, demonstrating that sustainability is not just a passion project of select employees but rather in the DNA of the organization.

Kaiser has reinforced sustainability’s centrality by allocating staff and funding. It designated Kathy Gerwig as Kaiser’s first Environmental Stewardship Officer. It created an Environmental Stewardship Council to oversee progress in sustainable purchasing, operations, and buildings. Adding a Chief Sustainability Officer or comparable position to its national leadership team would strengthen Kaiser’s commitment to sustainability and help ensure environmental stewardship is part of all upper-management conversations.

A supportive foundation, emphasis on return on investment, enabling policy landscapes, climate leadership and media engagement, and a habit of setting targets, measuring progress, and aiming even higher made Kaiser a pioneer in sustainable healthcare. As other organizations pursue their sustainability strategy, they should consider the following learnings from Kaiser’s journey.

Supportive Foundation: Kaiser’s integrated model sets it apart from other health plans and hospital systems. Its focus on collaborative, incentive-aligned total health naturally extends to include care for the environment and provides a supportive foundation for its sustainability efforts. For other organizations, such as for-profit, stand-alone health centers, this connection may not seem as organic. Therefore, additional efforts may be needed to build the case to include sustainability within the mission of the organization.

Emphasizing ROI: Tying sustainable projects to return on investment was a smart move by Kaiser. This practice should be replicated by other organizations, particularly for-profit hospital systems where bottom-line performance must meet shareholder expectations.

Enabling Policy Landscape: Many of Kaiser’s facilities are in geographic areas where sustainability and innovation are popular with customers, employees, and communities. California and Washington, for example, have favorable policy landscapes for sustainable development. In an interview with S&P Global Market Intelligence, Rame Hemstreet, Kaiser’s VP for Operations and Chief Sustainable Resources Officer, acknowledged that the third of Kaiser’s business that is outside of California has a harder time achieving sustainability goals.


due to hurdles in entering power purchasing agreements, amongst other barriers. Hospital systems attempting to adopt Kaiser’s approach should consider how their state’s culture and regulatory conditions enable or inhibit environmental progress.

**Climate Leadership and Media Engagement:** Kaiser’s engagement with high profile climate leadership initiatives, coupled with its many “firsts” in the industry, brought it significant media attention and environmental accolades. Positive public relations may have served to increase momentum for sustainability initiatives in its early years. Kaiser benefited from being ahead of the sustainability curve. Other health systems that attempt to follow suit may not receive as much attention as decarbonization and waste management become the norm rather than the exception—but leaders should not let this inhibit progress.

**Setting, Measuring, and Reaching for More:** Kaiser’s practice of setting ambitious goals, investing in measurement and management, and continuing to raise the sustainability bar higher when those targets are reached is a model for the rest of the industry to follow.

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