

# Linkages Between HHS Sustainability Goals and Strategic Plan Objectives

Fiscal Years 2010-2015



HHS Strategic  
Sustainability  
Performance  
Plan

HHS Strategic  
Plan 2010-2015

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**GOAL 1: TRANSFORM HEALTHCARE**

**OBJECTIVE A: Make coverage more secure for those who have insurance, and extend affordable coverage to the uninsured.**

Goal Numbers

Goal Description

ALL

Sustainability depends not only upon living within the sustainable scale of ecosystems and natural resources and their efficient allocation, but also just distribution of systems, services, and resources that sustain life. By working to ensure access to health coverage to all, HHS is supporting well-being and sustainability.

**OBJECTIVE B: Improve Healthcare Quality and Patient Safety**

Goal Numbers

Goal Description

1, 2

Greenhouse Gas  
Reduction

Some of the most damaging high Global Warming Potential (GWP) chemicals are gases used in health care. In addition to their impacts on climate and the ozone layer some of these gases such as inhalational anesthetics and hydrochlorofluorocarbon propellants are also indoor air contaminants. Current efforts to track, reduce use, and control emissions of these high GWP gases should also reduce potential for patient and worker exposure and adverse health effects.

4

High  
Performance  
Sustainable  
Design/Green  
Buildings

Limited studies have shown that patients in sustainably designed and operated health care facilities have significantly improved treatment outcomes, shorter hospital stays and greater satisfaction with their overall care. Minimizing and eliminating the use of toxic substances in building materials and cleaning products protects the health and safety of both patients and health care providers by reducing exposure to these materials. Recruiting and retention of skilled healthcare providers is also improved and there is some evidence that rates of medical errors and hospital acquired infections are reduced. High performance facilities use less energy and water and generate less waste. Investments in sustainable design and operations have relatively short pay back times in health care facilities and significantly reduce operating costs over the life cycle of the facility.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**OBJECTIVE C: Emphasize primary and preventative care linked with community prevention services.**

Goal Numbers

Goal Description

1-10

All Goals

All sustainability goals contribute to improvement of sanitation, reduced exposure to toxic substances, stressors and other factors that cause diseases. Over human history improvements in environmental health have been shown to be the most effective community based measures for protection of public health and these greatly reduced the need for health care associated with treatment of preventable diseases.

5

Regional and  
Local Planning

Effective regional and local planning improves patient access to primary and preventative care services by locating community-based health care facilities in safer, less polluted areas and in close proximity to transportation services. Local HHS sustainability efforts contribute to the overall enhancement of community resilience and development of local sustainability infrastructure. For example, when HHS programs, healthcare facilities and offices incorporate recycling, purchasing renewable energy, or green purchasing it can influence and increase the availability of these services for the entire community.

**OBJECTIVE D: Reduce the growth of healthcare costs while promoting high-value, effective care.**

Goal Numbers

Goal Description

4

High  
Performance  
Sustainable  
Design/Green  
Buildings

The incorporation of high performance and sustainable design features in health care facilities significantly reduces operating costs associated with energy and water use and waste disposal services. Green facilities benefit from improved recruiting and retention of personnel, and reduced absenteeism, which reduced personnel costs. Studies have also shown that patient satisfaction and outcomes are improved; less analgesic medications are required, the duration of hospital stays is reduced and there are fewer accidents and medical errors. Investments in improving sustainability of health care facilities are cost effective, have short payback periods and a high return on investment. Savings achieved by incorporation of these sustainability measures can then be applied to improving and increasing the availability of healthcare services.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**OBJECTIVE E: Ensure access to quality, culturally competent care for vulnerable populations.**

Goal Numbers	Goal Description	
4	High-Performance Sustainable Design/Green Buildings	Sustainable/green health care facilities incorporate design features that are responsive to prevailing cultural needs; use locally sourced materials and foods; and preserve historical aspects.
5	Regional and Local Planning	Effective regional and local planning improves patient access to primary and preventative care services by locating community-based health care facilities in safer, less polluted areas and in close proximity to transportation services. These benefits are particularly important for vulnerable populations that typically have lower socioeconomic status, tend to be located in depressed areas, may not have cars or the ability to travel to distant health care providers.

**OBJECTIVE F: Promote the adoption and meaningful use of health information technology.**

Goal Numbers	Goal Description	
7	Pollution Prevention and Waste Elimination	Resource conservation goals include less use of paper based methods for information storage and dissemination. The current focus on paper based methods reduces accessibility, efficiency and doesn't follow societal trends toward greater reliance on social media based on electronic systems for health information.
9	Electronic Stewardship and Data Centers	Implementation of electronic stewardship requirements will greatly lower the life cycle costs of acquiring and using electronic information systems. This will improve the accessibility of all types of health information ranging from patient records, research findings and health education tools, and allow faster replacement of paper based files. Increased reliance on electronic healthcare systems will mean increased need for servers and data centers. Efficient energy management of these systems will reduce greenhouse gas emissions and operating costs.

**GOAL 2: ADVANCE SCIENTIFIC KNOWLEDGE AND INNOVATION**

**OBJECTIVE A: Accelerate the process of scientific discovery to improve patient care.**

Goal Numbers

Goal Description

10

Agency  
Innovation

Findings from basic and applied research on indoor environmental quality and health are being applied to the design and operation of health care facilities and to ensure that sustainability features and rating systems emphasize occupant health, safety and wellbeing. More research is needed to better inform sustainable design standards and determine best management practices for operations. Proposals to accelerate interdisciplinary basic and applied research and indoor environmental quality and health have been advanced.

**OBJECTIVE B: Foster Innovation to create shared solutions.**

Goal Numbers

Goal Description

10

Agency  
Innovation

Primary functions of the proposed HHS Sustainability Innovations Program will be to foster innovations and maximize dissemination and sharing of products from the program.

**OBJECTIVE C: Invest in the regulatory sciences to improve food and medical product safety.**

Goal Numbers

Goal Description

7

Pollution  
Prevention and  
Waste  
Elimination

Investments in initiatives to review regulations, remove unnecessary regulatory impediments and establish new regulations could facilitate redistribution, reuse and recycling of medical products and lower costs of health care and waste disposal. For example, large quantities of unused or partially used, high value medical supplies from surgical procedure kits are disposed of because the regulatory framework and systems for recovery have not been established.

8

Sustainable  
Acquisitions

Sustainability criteria for food and medical products such as requirements for reduced use of toxic materials improve the safety of these products. Investments in specifications, regulations and monitoring programs favoring or requiring federal procurement of sustainable products will provide large incentives for the private sector to develop and market more sustainable, safer products.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**OBJECTIVE D: Increase our understanding of what works in public health and human service practice.**

**Goal Numbers**

**Goal Description**

1-10

All Goals

All goals in the sustainability plan include provisions for measuring, tracking and reporting performance and returns on investment. The metrics and tools developed for these purposes may be used as tools for measuring and understanding the performance of other HHS mission activities. For example, the plan includes requirements for tracking greenhouse gas (GHG) emissions from facilities and progress in meeting reduction targets. Emission intensity factors can be calculated based on the number of services performed, patients served, square footage of occupied space and other descriptors. GHG intensity factors provide a highly integrated measure of overall process and facility operating efficiency. These factors can be used to compare various approaches to mission activities and develop best practices.

**GOAL 3: ADVANCE THE HEALTH, SAFETY, AND WELL-BEING OF THE AMERICAN PEOPLE**

**OBJECTIVE A: Promote the safety, well-being, resilience, and healthy development of children and youth.**

**Goal Numbers**

**Goal Description**

4

High-  
Performance  
Sustainable  
Design/Green  
Buildings

HHS is connecting research on the health impacts of poorly maintained buildings (particularly residential), toxic material exposures, and building and site designs that discourage physical activity, to recommend ways to create built environment that contribute to positive health outcomes. Information on sustainable, high performance designs and best operating practices developed for HHS facilities can be readily translated and applied to school facilities. For example, NIH has worked with the Office of the Federal Environmental Executive on an initiative to work with K-12 educational organizations in greening schools and improving learning environments.

5

Regional and  
Local Planning

HHS components are helping to define and promote health improving aspects of regional and local planning. Many of the benefits of this focus on children and youth. For example, well planned communities offer increased opportunities for outdoor play and physical exercise, critical for reducing childhood obesity and related diseases.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

Goal Numbers

Goal Description

7

Pollution  
Prevention and  
Waste  
Elimination

Reduction goals are currently being established for mercury, endocrine disruptors and asthma triggering chemicals. These have primary health impacts on the fetus and young children. HHS will also be looking at other commonly used materials to identify similar links and establish additional reduction goals for uses in our facilities and operations.

**OBJECTIVE B: Promote economic and social well-being for individuals, families, and communities.**

Goal Numbers

Goal Description

5

Regional and  
Local Planning

Sustainably designed communities promote the social well being of inhabitants and improve economic conditions by promoting use of locally sourced materials, reducing transportation needs and improving efficiency. Sustainability, by definition ensures the economic and social well-being of future generations.

**OBJECTIVE C: Improve the accessibility and quality of supportive services for people with disabilities and older adults.**

Goal Numbers

Goal Description

4

High-  
Performance  
Sustainable  
Design/Green  
Buildings

Older people and those with disabilities may be especially sensitive to indoor air contaminants. Green, high performance buildings must meet requirements for less toxic, less emitting materials and more stringent indoor air quality criteria that may not be applicable to conventional buildings. High performance buildings are also better insulated, use less energy and have lower energy costs. Energy costs can be particularly burdensome for older adults and disable people with low incomes. Inability to pay utility costs may force these people to reduce or eliminate use of heating and cooling systems, which can have serious or life threatening consequences.

5

Regional and  
Local Planning

Sustainable regional and local plans ensure that public transportation services are available and that HHS facilities providing supportive services are accessible. These are particularly important benefits for people with disabilities and older adults with less mobility and ability to obtain transportation services.

**HHS Strategic Sustainability  
Performance Plan Goals**

Goal Numbers

Goal Description

7

Pollution  
Prevention and  
Waste  
Elimination

**Applicable Strategic Plan Goals and Objectives**

The aged and people with disabilities use significantly higher amounts of pharmaceuticals, and may have more frequent changes in prescriptions than members of these general population. For these reasons they tend to generate more unused pharmaceuticals requiring disposal. With their reduced mobility they may not have access to disposal services that are secure from diversion and protective of the environment. Disposal down drains may be their only disposal option and this contributes to contamination of wastewater, which is a growing concern. Strategies and systems under development by HHS and others to improve management of waste pharmaceuticals will reduce the potential for diversion and be more protective of the environment. In developing these improved management schemes the special needs of the disabled and aged must be considered.

**OBJECTIVE D: Promote prevention and wellness.**

Goal Numbers

Goal Description

1-10

All Goals

All sustainability goals contribute directly or indirectly to improved environmental health, which prevents disease and supports wellness.

**OBJECTIVE E: Reduce the occurrence of infectious diseases.**

Goal Numbers

Goal Description

7

Pollution  
Prevention and  
Waste  
Elimination

The intent of greenhouse gas reduction goals is to prevent or delay climate change. According to the Report of the Interagency Working Group on Climate Change and Health, climate change will endanger public health, affecting all sectors of society, both domestically and globally. Potential vector health impacts of climate change include the potential spread of vector borne infectious tropical diseases into previously temperate climate zones, and outbreaks of waterborne diseases resulting from droughts, floods and reduced access to clean water. A related Executive Order also requires agencies to plan for adaptation to climate change impacts such as increased demand for public health and health care services, which may arise from the increased prevalence of infectious diseases.



**HHS Strategic Sustainability  
Performance Plan Goals**

**Goal Numbers**

**Goal Description**

4

**High  
Performance  
Sustainable  
Design/Green  
Buildings**

High performance, green buildings include features that reduce the potential for indoor transmission of infectious diseases. Examples include indoor air quality criteria, day lighting and requirements for moisture control that reduce mold growth.

7

**Pollution  
Prevention and  
Waste  
Elimination**

Pollution prevention and waste elimination goals include reductions in infectious waste generation. Improvements in waste management also eliminate environmental conditions that favor proliferation of rats, flies and other vectors that transmit these diseases. Goals to reduce toxic chemical emissions may also reduce the incidence and severity of infectious diseases. Information on the relationship of toxic pollutants to infectious disease remains scant but there is increasing evidence of associations for some pollutants. For example, mercury contaminated environments promote the development of bacteria with resistance to multiple antibiotics. Antibiotic resistance is a serious and growing public health problem worldwide. Mercury exposure and uptake may also depress the immune response to infectious disease agents.

**OBJECTIVE F: Protect Americans' health and safety during emergencies, and foster resilience in response to emergencies.**

**Goal Numbers**

**Goal Description**

1, 2

**Greenhouse Gas  
Reduction**

Reducing GHG emissions delays climate change and the incidence of extreme weather, droughts, heat waves, fires, sea level rise, infectious disease outbreaks and other disasters associated with global warming. Greenhouse gas reduction initiatives also require planning for an adaptation to climate change impacts such as water and energy shortages and increased demand for public health and health care services.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

Goal Numbers

Goal Description

4

High  
Performance  
Sustainable  
Design/Green  
Buildings

High performance, sustainable buildings have many design features that may improve their resilience during emergencies. Examples include energy and water conserving systems; increased onsite power generation and rainwater use capabilities that reduce dependence on public utilities, which may be impaired or out of service during droughts and other emergencies; reduced dependence on fossil fuels, which may require transport from distant sources; enhanced storm water management systems; moisture control systems to reduce potential for mold growth and flood damage. These features help to ensure that the critical public services provided by operations in HHS facilities can be continued during emergencies and sustainable siting facilitates public transportation and access.

7

Pollution  
Prevention and  
Waste  
Elimination

Sustainable facilities generate less solid waste and wastewater during operations, reducing dependence on off-site disposal services, which may be impaired or not be available during emergencies. The use of green building materials reduces generation of toxic emissions in fires and improves the potential for reuse and recycling of debris from damaged buildings. Sustainability criteria that favor use of local recycling and disposal services contribute to development and resilience of infrastructure and waste management capability in the surrounding communities.

**GOAL 4: INCREASE EFFICIENCY, TRANSPARENCY, AND ACCOUNTABILITY OF HHS PROGRAMS**

**OBJECTIVE A: Ensure program integrity and responsible stewardship of resources.**

Goal Numbers

Goal Description

1-10

All Goals

Ensuring the responsible stewardship of resources and maximizing return on investments are inherent objectives of all sustainability goals.

**OBJECTIVE B: Fight fraud and work to eliminate improper payments.**

Sustainability goals are not applicable to this objective.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**OBJECTIVE C: Use HHS data to improve the health and well-being of the American people.**

Goal Numbers

Goal Description

1-10

All Goals

Attainment of sustainability goals contributes to health in many ways as described in the other specific objectives. Data on the sustainability performance of HHS facilities and mission activities and best practices will be communicated on websites and other media for use by the public.

**OBJECTIVE D: Improve HHS environmental, energy, and economic performance to promote sustainability.**

Goal Numbers

Goal Description

1-10

All Goals

These are goals of the Strategic Sustainability Performance Plan.

**GOAL 5: STRENGTHEN THE NATION'S HEALTH AND HUMAN SERVICE INFRASTRUCTURE AND WORKFORCE**

**OBJECTIVE A: Invest in the HHS workforce to meet America's health and human service needs today and tomorrow.**

Goal Numbers

Goal Description

1-10

All Goals

Shortages of highly skilled workers needed to implement sustainability objectives are anticipated. Affected professions include technicians and engineers for operating advanced building systems; environmental engineers and environmental health officers (sanitarians and industrial hygienists). Targeted investments and efforts to recruit and train workers in these fields will be needed. HHS is promoting healthy and productive work environments for its employees through healthier indoor environments, increased opportunities for physical activity, and healthier eating choices in all facilities.

**HHS Strategic Sustainability  
Performance Plan Goals**

**Applicable Strategic Plan Goals and Objectives**

**OBJECTIVE B: Ensure that the Nation’s healthcare workforce can meet increased demands.**

Goal Numbers

Goal Description

1-10

All Goals

Increased demands for health care services may arise from higher disease prevalence and other adverse consequences of climate change. Allied health workers such as biomedical and building engineers, and environmental health officers may also face increase demands on time and resources to implement sustainability initiatives. Planning for adaptation climate change and these initiatives must include provisions to ensure that that these workers can meet these increases in demand.

**OBJECTIVE C: Enhance the ability of the public health workforce to improve public health at home and abroad.**

Goal Numbers

Goal Description

1-10

All Goals

Methods, resources and experience developed from domestic sustainability and environmental health initiatives will enhance the ability of workers to participate in and lead similar international public health initiatives. Almost all sustainability goals affect global systems and increased collaboration with international health organizations will be required to meet them.

**OBJECTIVE D: Strengthen the Nation’s human service workforce.**

Sustainability goals are not applicable to this objective.

**OBJECTIVE E: Improve National, State, Local, and tribal surveillance and epidemiology capacity.**

Goal Numbers

Goal Description

1-10

All Goals

Tools, resources and systems developed to collect, manage, report and use sustainability goal performance data should be of great value to disease surveillance programs. Pairing of sustainability metrics and epidemiologic data can be used to assess the effectiveness of sustainability initiatives in preventing diseases and inform the selection of best management practices.