

WHO GUIDANCE FOR CLIMATE-RESILIENT AND ENVIRONMENTALLY SUSTAINABLE HEALTH CARE FACILITIES

Interventions listed below can be rated as follows:

	Indicates either low performance, or unavailable activity, or unable to complete.
	Indicates either medium performance, or activity in progress, or incomplete.
	Indicates either high performance or completed activity, or achieved and tested.

The complete **WHO guidance for climate resilient and environmentally sustainable health care facilities**, along with other intervention tables, are available in English, French and Spanish on the WHO website at who.int/publications/i/item/9789240012226.

Infrastructure, technology and products interventions – environmental sustainability

Interventions on environmental sustainability

Adaptation of current infrastructures: Building regulations implemented in the construction and retrofitting of health care facilities to ensure climate resilience and environmental sustainability.

Infrastructure, technologies and products – environmental sustainability

Interventions (level of achievement)	Action level			Observations
	<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; background-color: red; margin-right: 5px;"></div> <div style="width: 20px; height: 20px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 20px; height: 20px; background-color: green;"></div> </div>			
<div style="background-color: red; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> Low: unavailable, unable <div style="background-color: yellow; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> Medium: in progress, incomplete <div style="background-color: green; width: 20px; height: 20px; display: inline-block; margin-right: 5px;"></div> High: completed, achieved				
Environmental sustainability criteria included in health care facility construction or renovation plans*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
New health care facilities designed and constructed based on low carbon approaches*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Information and operational funds available for energy-saving interventions*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Medical gases and chemicals stored securely in well ventilated areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility equipped with air pollution filters to improve indoor air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction or retrofitting considers corridors with exterior walls to maximize use of daylight and natural ventilation*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Retrofitting of buildings implemented to cut energy waste*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Installed solar water heaters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Installed hybrid systems (which include renewable energy, batteries, and backup generators)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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Promotion of new technologies: Adopt new technologies and processes that can provide climate resilience, environmental sustainability and enhanced health service delivery.

Infrastructure, technologies and products – environmental sustainability

Interventions (level of achievement)	Action level			Observations
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<div><input type="checkbox"/> Low: unavailable, unable</div> <div><input type="checkbox"/> Medium: in progress, incomplete</div> <div><input type="checkbox"/> High: completed, achieved</div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Selected an energy system according to factors relevant to the facility (such as facility size, level of care, budget, operational cost, resource availability, and geographic location)*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Assessed and examined medical equipment to ensure they are energy efficient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Appropriate technological devices in place according to energy availability and power (such as chest radiography and magnetic resonance imaging machines need considerable amount power to run)*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Replaced oversized air conditioning and ventilation systems for smaller energy efficient models, when feasible,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Established partnership with local government for the installation of off-grid energy systems supply*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Performed inventory of medical and other equipment to understand and determine an estimate of the facility's energy needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Evaluated renewable energy technologies available to power the facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improved off-grid solar photovoltaic power systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Installed clean and renewable energy sources (such as solar panels, wind turbines and biofuels) for lighting, heat generation, pumping and water heating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Installed solar lighting in health care facility car parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Replaced medical devices with more water-efficient or energy-efficient models*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Replaced dishwashers and laundry machines with those having water-saving functions,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

whenever possible or when replacements are needed *				
Substituted mercury-containing thermometers and blood pressure measuring devices for affordable, validated and non-mercury-containing device alternatives*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Sustainability of health care facility operation: Adopt and procure low environmental impact technologies, processes and products to enhance climate resilience and environmental sustainability.

Infrastructure, technologies and products – environmental sustainability

Interventions (level of achievement)	Action level			Observations
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<div><input type="checkbox"/> Low: unavailable, unable</div> <div><input type="checkbox"/> Medium: in progress, incomplete</div> <div><input type="checkbox"/> High: completed, achieved</div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Implemented a clear environmentally sustainable procurement policy statement or protocol for all types of products, equipment and medical devices used in the health care facility*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility staff trained on effective and efficient procurement practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility staff encouraged to use bicycles, public transportation and carpools to minimize transportation emission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment and supplies purchased from local sources as much as possible, when available*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment and supplies purchased giving priority to environmentally friendly products (such as minimal packaging, reusable and recyclable products, avoiding hazardous chemicals and non-degradable plastics)*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility purchases energy-efficient products (medical devices, vehicles, computers)*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility promotes local and sustainable food production*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Changes made in health care facility service menus and practices, including limiting the amount of meat and dairy products in meals when appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
On-site garden set up as a means to introduce fresh food in the food service operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Health care facility composts food waste when possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility plants indigenous trees and plants to obtain health co-benefits, such as the provision of natural shade for patients, staff and visitors during extreme heat events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility surroundings have drought-resistant plants in drought prone areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Drainage for wastewater from health care facility is constructed and managed to avoid contamination of the health care setting or the ambient environment*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floor-care products are free of zinc, heavy metals, phthalates, glycol ethers and ammonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

* Actions that need the support of local or national governments, or of other sectors