Climate resilient and environmentally sustainable health care facilities
WHO Manifesto for a healthy recovery from COVID-19

Six Prescriptions for a healthy and green recovery

Protect nature 🐝
Ensure basic services 🚰️ ⚡
Shift to clean energy 🌞
Promote healthy, sustainable food systems 🌵
Build liveable cities 🏙️
Stop subsidizing pollution 🔥 💰
Three tasks for public health in the face of climate change

Help reduce carbon emissions, while promoting health (e.g. ↓ air pollution)

Protect health from full range of rising climate risks

Make health systems/facilities resilient and sustainable
New WHO Guidance on climate-resilient and environmentally sustainable health care facilities

GOALS
To increase the climate resilience of health care facilities to protect and improve the health of their communities in an unstable and changing climate, while optimizing the use of resources and minimizing the release of wastes by becoming environmentally sustainable.

OBJECTIVES
• Guide professionals working in health care settings to understand and effectively prepare for the additional health risks posed by climate change.

• Monitor, anticipate, manage and adapt to the health risks associated with climate change.

• Guide health care facility officials to work with health determining sectors (including water and sanitation, energy, transportation, food, urban planning, environment).

• Provide tools to assist health care facility officials assess their resilience to climate change threats, and their environmental sustainability.

• Promote actions to ensure that health care facilities are constantly and increasingly strengthened and continue to be efficient and responsive to improve health and contribute to reducing inequities and vulnerability within their local settings.
Climate resilience and environmental sustainability in health care facilities
Tools and frameworks available to support countries establishing their baselines
Framework for building climate resilient and environmentally sustainable health care facilities

- **Climate change:**
  - Floods,
  - Droughts,
  - Fires,
  - Storms,
  - Temperature extremes,
  - Sea-level rise,
  - Climate sensitive disease outbreaks

- **Health care facilities**
  - **Health workforce**
    - Human resources,
    - Capacity development,
    - Communication & awareness raising
  - **Water, sanitation hygiene and health care waste**
    - Monitoring & assessment,
    - Risk management,
    - Health & safety regulation
  - **Energy**
    - Monitoring & assessment,
    - Risk management,
    - Health & safety regulation
  - **Infrastructure, technologies and products**
    - Adaptation of current systems & infrastructures,
    - Promotion of new systems & technologies,
    - Sustainability of health care facility operation

- **Environmental impacts:**
  - Water
  - Sanitation
  - Wastes
  - Air pollution
  - Chemicals
  - Radiation
  - GHGs

- **Climate resilience**

- **Healthy people, Healthy environment**

- **Total environment**

- **GHGs**

- **Healthy environment**

- **Environmental sustainability**
Health workers have a key role in building climate resilience and environmental sustainability of health care facilities. Because building climate resilience and environmental sustainability are relatively new approaches for health workers, building awareness, training and empowering health workers are key requirements for the successful implementation of interventions.

OBJECTIVES FOR THE IMPLEMENTATION OF THIS COMPONENT

**Human resources**: Health care facilities having sufficient number of health workers with healthy and safe working conditions, capacity to deal with health risks from climate change, as well as the awareness and empowerment to ensure environmentally sustainable actions.

**Capacity development**: Training, information and knowledge management targeted at health care workers to respond to climate risks and minimize environmental threats resulting from the operation of the health care facility.

**Communication and awareness raising**: Communicate, coordinate and increase awareness related to climate resilience and environmental sustainability among health workers, patients, visitors, target communities, and with other sectors.
Detailed checklists to assess health facility vulnerability to different climate-related risks

<table>
<thead>
<tr>
<th>DROUGHTS</th>
<th>Vulnerability Level</th>
</tr>
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<tbody>
<tr>
<td>High: unprepared, unable to respond (Higher risk)</td>
<td>Medium: basic or incomplete preparation, low level of response (Medium risk)</td>
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### Does the health workforce: (Monitoring and assessment)
- Is the health workforce informed on how to use and follow a surveillance system to track health outcomes? [ ] [ ] [ ]
- Are there guidelines on risk assessments to assist in the identification, planning, monitoring and evaluation of risk reduction and adaptation strategies associated with direct and indirect impacts of drought? [ ] [ ] [ ]
- Is the health workforce regularly involved in community disaster planning committees to improve knowledge on how to reduce risks, as well as be prepared and respond to direct and indirect impacts of drought? [ ] [ ] [ ]
- Is the health workforce provided with an effective emergency risk communication plan? [ ] [ ] [ ]

### Does the health care facility: (Adaptation of current systems and infrastructures)
- Have water safety conditions, which include updated risk assessments to map water resources and water supplies for the facility? [ ] [ ] [ ]
- Have an updated plan to map risks to the water and sanitation infrastructure to identify where more could be destructed from water scarcity? [ ] [ ] [ ]
- Is the water harvesting system for damage and contamination? [ ] [ ] [ ]
- Have an evaluation system to monitor water drops, leaks and inefficiency flows in bathrooms, laundry facilities, kitchen, etc. and perform prompt repairs to avoid loss? [ ] [ ] [ ]
- Are visible safety conditions and proper functioning of all elements of the water distribution system in preparation for drought (e.g. storage tanks, systems, valves, pipes and connections, and water distribution)? [ ] [ ] [ ]
- Is there a system on the water system installation that ensures lower risk of being contaminated? [ ] [ ] [ ]
- Have a water quality monitoring plan for human consumption? [ ] [ ] [ ]
- Have a monitoring plan for portable water? [ ] [ ] [ ]

### Risk management
- Have a water management plan to identify water contamination? [ ] [ ] [ ]
- Have a contingency plan for monitoring and reducing contamination in the facility water system supplies? [ ] [ ] [ ]
- Have a water management system to avoid or reduce vector breeding sites? [ ] [ ] [ ]
- Have anti-mosquito breeding measures to avoid vectorborne diseases? [ ] [ ] [ ]
- Have a rainwater catchment system with safe water storage? [ ] [ ] [ ]
- Have an appropriate system with tanks with appropriate covers to prevent contamination? [ ] [ ] [ ]
- Have water storage that is protected from direct sunlight? [ ] [ ] [ ]

### Adaptation of current systems and infrastructures
- Have an information system between the health sector and meteorological services to communicate clear messages of the duration of droughts and steps to protect health as a priority? [ ] [ ] [ ]
Framework for assessing Greenhouse gas emissions in health care facilities

Carbon footprint of the Health System: “Top-down assessments”

What fraction of all GHG emissions are from the health sector? Where do these emissions originate (Scopes)?

Scope 1 (Direct, controlled)
- Staff active travel;
- Virtual meetings;
- Telehealth
- Waste reduction and recycling
- Fossil fuel use;
- Reduced unnecessary travel
- Anesthetic products
- Reusable medical devices

Scope 2 (Indirect, purchased energy)
- Reduced energy use by staff actions
- Water heating and cooling
- Electricity needs;
- Space heating and cooling
- Reduced energy from energy efficient technologies and products;
- Electrification of transport fleet

Scope 3 (Indirect, supply chain)
- Staff commuting;
- Business travel
- Waste disposal;
- Water use
- Energy used in other areas of the supply chain
- Metered dose inhalers;
- Medicines;
- Medical devices;
- Food procurement;
- Construction

Carbon footprint of Health Care Facilities: “Bottom-up assessments”

How much GHGs does each facility generate? Where are the best opportunities to reduce emissions?

GHG Protocol Scopes
COP26 Presidency Health Actions

Build climate-resilient health systems

Health Leadership in emission reductions

Mobilize the health community - an impartial, professional voice

Delivering a ‘Net Zero’ National Health Service
Conclusions

• Building forward better from COVID should include basic services, climate resilience and improved sustainability in health facilities

• Healthcare provision, and particularly health facilities, are the sharp end of health impacts of climate change

• The healthcare industry is now a significant contributor to greenhouse gas emissions – approximately 5% globally

• There are now rapidly growing global advocacy initiatives, technical guidance and practical experience in bringing these priorities together