Hixon Center for Urban Sustainability

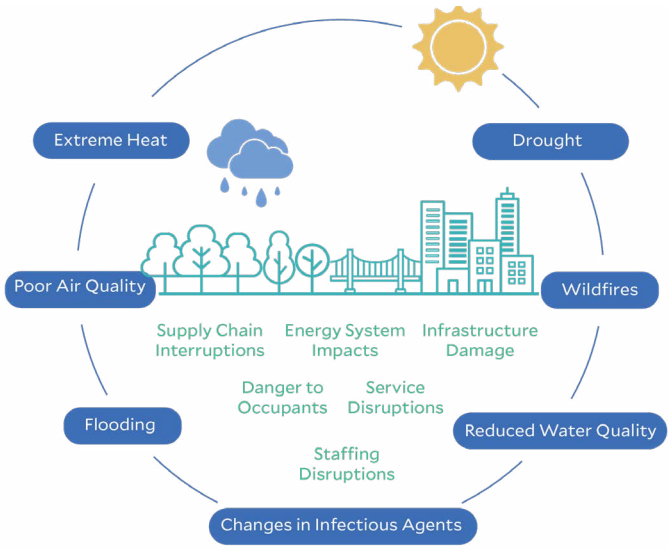
FACT SHEET

Increasing the Climate Resilience of Health Systems

Healthy City | **Built Environment**

Climate Issue: Health Service Disruptions

- Climate change will continue to increase extreme weather events like heatwaves and floods
- These events can disastrously impact the physical infrastructure and operations of urban healthcare facilities
- They can also disrupt globalized medical supply chains, leading to product shortages and higher costs
- Improving the climate resilience of health systems worldwide can ensure continuous and sustainable medical care.



Emergency Planning for Climate Risks

- Hazard vulnerability analyses (HVAs) help healthcare facilities identify, assess, and prioritize potential hazards to their infrastructure and services
- To work with the best data, facilities can fund partnerships with scientists and urban planners. Together, they can build high-quality models of climate risks like flooding
- This information can be used to develop emergency response plans for protecting staff, patients, and facilities
- Understanding climate risks can also inform new construction and facility retrofits. Hospitals should consider incorporating features like flood barriers, green roofs, backup generators, and effective ventilation systems.

Bolstering Supply Chain Resilience

Measures to mitigate supply chain disruptions due to climate change can protect public health and promote sustainability.

- Hospitals should avoid unnecessary waste and prolong equipment use through proper maintenance. This can increase inventories, reducing demand for new supplies
- Facilities can expand their use of reusable medical devices, serving as their own suppliers with full operational control
- Hospitals can maintain procurement contracts with multiple suppliers in different geographic regions
- Finally, facilities can share data with supply chain stakeholders to predict product use and resupply dates.

IN A NUTSHELL

- Healthcare facilities can face operational and supply chain disruptions due to climate change-related extreme weather events
- Emergency planning can help facilities identify potential hazards and develop detailed strategies to protect staff, patients, and physical infrastructure.
- Facilities can target supply chain resilience by avoiding unnecessary waste and diversifying their suppliers.

WHAT CAN YOUR HEALTH SYSTEM DO?

CONDUCT thorough assessments to predict climate hazards

DEVELOP detailed reponse plans for extreme weather events

INTEGRATE climate resilience features into health facilities

IMPROVE supply chain resilience to ensure continued availability of medical equipment during emergencies

SHARE data with supply chain stakeholders to predict product use and prevent shortages.

To find out more information on this fact sheet, contact **Dr Jodi Sherman** at **jodi.sherman@yale.edu**. Fact sheet based off Sherman, J. D., MacNeill, A. J., Biddinger, P. D., Ergun, O., Salas, R. N., & Eckelman, M. J. (2023). Sustainable and resilient health care in the face of a changing climate. Annual Review of Public Health, 44, 255–277. https://doi.org/10.1146/annurev-publhealth-071421-051937