

## A.6 WILDFIRE CHECKLISTS

Wildfires are defined as any uncontrolled and nonprescribed combustion or burning of plants in a natural setting (such as a forest, grassland, brush land or tundra), which consumes natural fuels and spreads based on environmental conditions (such as wind, topography and temperature) (24). Wildfires can be associated with droughts, extreme temperatures and wind, making their combined impacts stronger (multihazard events).

### CHECKLIST FOR ASSESSING VULNERABILITY TO WILDFIRES

WILDFIRES		Vulnerability level		
<b>High:</b> unprepared; unable to respond (Higher risk) <b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk) <b>Low:</b> prepared; able to respond (Lower risk)		High	Medium	Low
<b>HEALTH WORKFORCE</b>	<b>Is the health workforce,</b>			
	<i>(Human resources)</i>			
	equipped with an alternative action plan for the health workforce with outdoor functions to avoid or limit their outdoor activity to avoid smoke and ash exposure (e.g. focusing on only performing high priority tasks, with workers' protection measures in place)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	equipped with a plan to identify and protect health workers at risk of smoke and ash exposure, and heat stress?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	prepared with clear guidance on actions to reduce heat and respiratory risk factors for staff, and find alternative human resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provided with a cool space and a shower room to offer cooling options for staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provided with special care assistance to treat eye and skin irritation, diseases related to hot temperatures, air pollution and ash and smoke exposure, as well as for mental stress, and chronic respiratory and cardiovascular diseases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	equipped with a contingency plan for limiting workers' smoke and ash exposure, including postponing or shortening time spent outdoors, relocating workers or rescheduling work tasks to areas or times of the day that are smoke-free or have less smoke; as well as encouraging and ensuring workers take frequent breaks inside clean air spaces (e.g. enclosed structures or vehicles with windows closed and in recirculating air mode)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	prepared with clear messages on reduction measures for short- and long-term exposures to indoor and outdoor air pollution and smoke (e.g. providing cleaner air spaces; using respirator masks; reducing outdoor activities; setting air conditioners to recirculation mode where safe; avoiding the use of exhaust fans in the kitchen, bathroom, clothes dryer and other facility rooms with exhaust fans)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provided with adequate personal protective equipment, especially for cleaners (respirator masks (fitting N-95 respirator#), leather gloves, safety glasses or goggles, clothes (long-sleeved shirts and long pants), and shoes with rugged soles)?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(Capacity development)</i>			
	trained in public health climate change matters related to wildfire impacts on human health?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	trained to an appropriate standard to maintain the correct level of safety of electrical power supply, in both routine and emergency/disaster situations?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	prepared and trained on a contingency plan for rapid increase in health workforce respiratory and cardiovascular problems, increased temperatures, and smoke and ash exposures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WILDFIRES		Vulnerability level		
<b>High:</b> unprepared; unable to respond (Higher risk) <b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk) <b>Low:</b> prepared; able to respond (Lower risk)		<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>HEALTH WORKFORCE</b>	<b>Is the health workforce,</b>			
	provided with a mechanism to learn about air pollution advisories and warnings, including air quality monitoring information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	equipped with knowledge, experience, training and resources to manage emergency preparedness and response measures to reduce wildfire risks and impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>(Communication and awareness raising)</b>			
	aware about the potential risks and impacts of wildfire on human health due to poor air quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware about keeping the facility environment cool where possible (e.g. close windows and doors; seal large gaps as much as possible; close curtains that receive morning or afternoon sun; turn off nonessential lights and electrical equipment; sleep or rest in a cooler room)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provided with guidance to perform risk assessments (including vulnerabilities and exposures) to support the identification, planning, monitoring and evaluation of risk reduction and adaptation strategies to reduce direct and indirect impacts of wildfires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware that to prevent overheating they must use cool compresses, misting, showers and drink plenty of water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware of appropriate strategies to reduce smoke exposure during evacuation, when necessary because of danger from fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware of wearing tight-fitting respirators to filter ash particles from the air to protect lungs (e.g. N95 respirator mask#), particularly for cleaners and outdoor workers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware of wearing gloves, long-sleeved shirts, long pants, shoes, socks and goggles to avoid skin contact (e.g. contact with wet ash can cause chemical burns or skin irritation), particularly among cleaners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware of having to change shoes and clothing before leaving a clean-up site to avoid taking ash offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	aware of not bringing food or eating at the affected site (and keeping food in a sealed container) and washing hands well before eating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	# Note: surgical masks and one-strap dust masks will not protect lungs.			
<b>WASH AND HEALTH CARE WASTE</b>	<b>Does the health care facility,</b>			
	<b>(Monitoring and assessment)</b>			
	have information on water system installation, such as deep tubewells and pipe materials that ensure low risk of contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	verify water safety conditions, which include updated risk assessments to map water resources and water supplies for the facility?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	monitor the water distribution system for fire-related pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	map risks to water and sanitation infrastructures to identify where services could be disrupted by wildfires and water scarcity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a quality monitoring plan for potable water?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>(Risk management)</b>			
have direct communication with water providers to ensure that water supply is safe to drink?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
have a water management plan to identify water contamination?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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<b>High:</b> unprepared; unable to respond (Higher risk) <b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk) <b>Low:</b> prepared; able to respond (Lower risk)		High	Medium	Low
WASH AND HEALTH CARE WASTE	have water treatment equipment and materials in sufficient quantity to provide potable water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Does the health care facility,</b>			
	have a contingency plan for monitoring and reducing contaminant concentrations in the facility's water supply system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	keep drinking water cool or refrigerated where possible for staff, patients and visitors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provide sufficient drinking water for staff, patients and visitors?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have water storage tanks with appropriate covers to protect from excessive heat?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have chemicals stored away from excessive heat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(Health and safety regulation)</i>			
	have a water management plan to protect the water supply and alternative water sources from contamination by wildfire particles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	work with water utility agencies to prevent suspension of services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have an alternative source of water supply?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have additional water treatment and storage capacity to account for interruption, quality and quantity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a quality monitoring plan for water meant for human consumption?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a contingency plan to ensure effective and timely delivery of safe water during a wildfire and emergencies over the short- and long-term?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
have a cross-sectoral water management plan to conserve and protect local or alternative water sources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ENERGY	<b>Does the health care facility,</b>			
	<i>(Monitoring and assessment)</i>			
	regularly assess its energy system to ensure it can cope with conditions of heat?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have an emergency backup generator (including fuel, where relevant) that is able to cover at least all critical service areas and equipment during and after the event?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	periodically check the emergency backup generator (including fuel, where relevant)?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	assess heating, ventilation and air conditioning ductwork pipes to ensure good functioning to cope with wildfire impacts?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	assess whether renewable energy (if available, such as solar) is sufficient to power critical equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(Risk management)</i>			
	have a secure place to protect the backup generator (including fuel or battery storage, where relevant) from fire?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have appliance thermometers in the refrigerator and freezer to determine if food, vaccines and other essential refrigeration-dependent medical supplies are safe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
have adequate daylight to ensure proper visibility during power outages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
have power-operated doors that can be opened manually to permit exit in case of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

WILDFIRES		Vulnerability level		
<p><b>High:</b> unprepared; unable to respond (Higher risk)</p> <p><b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk)</p> <p><b>Low:</b> prepared; able to respond (Lower risk)</p>		High	Medium	Low
ENERGY	<b>Does the health care facility,</b>			
	have a clear guidance to alert staff on safety measures, (e.g. never restore power when the power is off, until a professional inspects and ensures the integrity of the electrical system; do not use electrical equipment that has been exposed to heat from a fire until checked by an electrician; use extreme caution when equipment is moved near overhead power lines; do not stand or work in areas with thick smoke (smoke hides electrical lines and equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a clear guidance on heat-risk management for the maintenance of critical infrastructure (e.g. air conditioning, medical devices, computers, diagnostic equipment, boiling water)?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>(Health and safety regulation)</i>			
	have an emergency plan for power outages in the short- and long-term?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a plan or regulation to determine ways to reduce overall energy use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	work with energy utility agencies to prevent suspension of electricity services?			
	have a generator backup or renewable energy sources (e.g. solar, wind power, small-scale hydroelectric power plants) that can be used for water pumping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have an emergency plan to ensure availability of adequate lighting, communication and information systems, and refrigeration and sterilization equipment during a wildfire?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a plan to evacuate patients to a cooling station if the facility has lost power and has no other sources of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INFRASTRUCTURE, TECHNOLOGIES, PRODUCTS AND PROCESSES	<b>Does the health care facility,</b>			
	<i>(Adaptation of current systems and infrastructures)</i>			
	work with the local government to support vulnerable local populations to actively participate in risk reduction management, policy making, planning and implementation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	provide advocacy on health workforce education to cover climate change wildfire risks and responses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a monitoring and early warning system integrated with other areas to manage risk reduction?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have an indoor air quality contingency plan in place for hazard-reduction burning, before the start of the fire season, as well as during and after a wildfire to assist in planning and decision-making?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	in their annual planning consider how climate risks may change in the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a mechanism in place to filter indoor and ambient air pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	review building code design baselines against wildfire, wind speeds, high temperature, smoke to assess each risk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	map the location of the building relative to wildfire hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	assess the performance and vulnerabilities of each critical part of the facility (structural and nonstructural elements) that can be affected by high temperatures and smoke from wildfire hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	utilize the assessed information as a basis to plan and prioritize measures to reduce risk impact?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a coordinated mechanism across the health sector at different levels of government, to manage the responses and risks of public health emergencies and disasters (including sharing of resources and supplies, transferring of patients, and health workforce support)?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WILDFIRES		Vulnerability level			
<b>High:</b> unprepared; unable to respond (Higher risk)		<b>High</b>	<b>Medium</b>	<b>Low</b>	
<b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk)					
<b>Low:</b> prepared; able to respond (Lower risk)					
<b>INFRASTRUCTURE, TECHNOLOGIES, PRODUCTS AND PROCESSES</b>	<b>Does the health care facility,</b>				
	have a safe space within or external to the facility for the storage and stockpiling of additional supplies, considering ease of access, security, temperature, ventilation, light and smoke exposure and humidity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have a contingency plan in place for safe and efficient personnel evacuation (including health staff and patients)?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have a plan to transfer critical equipment and medical supplies to another place or to a cool storage to avoid or reduce damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	regularly monitor air quality (temperature and humidity), especially during and after wildfire exposures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have available appropriate air filters in indoor working areas to reduce overall smoke and dust exposure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	assess if the filters of the heating, ventilating and air conditioning systems are not dirty, damaged, dislodged or leaking around the edges, before the wildfire season and during smoke events to ensure necessary repairs and appropriate maintenance?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have appropriate portable air cleaners to reduce indoor particle levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have appropriate ceiling fans or portable fans for room cooling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have a management plan for the use of personal protective equipment for wildfires in the medical stockpile?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	maintain partnerships with key partners and stakeholders (e.g. air quality agencies, local health providers, health departments, fire department, land management agencies, and others) for effective wildfire response and recovery?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<b><i>(Promotion of new systems and technologies)</i></b>				
	have an information system between the health sector and meteorological services, and other relevant sectors, to communicate about the risks of wildfires, or hazard-reduction burning, and expected number of hot and smoky days?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	monitor information alerts from local announcements, air quality forecasts, and changing smoke conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have emergency plan and procedures in place related to wildfire effects (such as hot temperature, air pollution, smoke, ash) on the facility,?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have reliable communication and information systems to facilitate measures to avoid or reduce impacts from wildfire hazard?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have established, clear and consistent knowledge transfer procedures in case of a public health emergency?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have an established plan to review, evaluate and catalogue risks related to wildfires for the health care facility supply chain?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	have a calibrated carbon monoxide alarm with a digital display and battery backup function to identify air contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<b><i>(Sustainability of health care facility operations)</i></b>				
offer a pleasant cool and protected environment that can avoid any kind of stress from high temperatures and smoke?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
have adaptive governance capacity regarding evaluation and measures for risk identification, risk reduction and response?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

WILDFIRES		Vulnerability level		
<b>High:</b> unprepared; unable to respond (Higher risk)		<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>Medium:</b> basic or incomplete preparation; low level of response (Medium risk)				
<b>Low:</b> prepared; able to respond (Lower risk)				
Does the health care facility,				
	have established partnerships between the facility, community and local authorities to reduce vulnerabilities in the surrounding areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	store chemical materials away from excessive heat or wildfires?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have arrangements to transfer patients to temporary safe shelters?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	assess the length of time people (including health workforce and patients) can remain in place before evacuating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a clean-up plan with appropriate measures to avoid contamination and stir up ash in the air (e.g. store in plastic bags or other containers to prevent stirring up; avoid washing ash into storm drains; use a high-efficiency particulate air vacuum to clean dusty surfaces; avoid stirring up or sifting through ash)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a trained and prepared team or a dedicated person for occupational health and safety, to manage hazards (e.g. providing respirator masks that are appropriate for the hazard and work situation; medical evaluation for safe respirator use; fit testing for tight-fitting respirators; training on topics such as how to use and maintain respirator masks; and programme evaluation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a secure plan to ensure continuity of the facility's supply and delivery chain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	have a safe location for fuel storage systems (e.g. gas, gasoline, diesel) or other protection measures in place?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: For WASH and health care waste details see WASH FIT (3).

\*For further details see Hospital Safety Index (2).

## IMPACTS CHECKLIST FOR WILDFIRES

HEALTH WORKFORCE		
LEVEL OF IMPACT		
MAJOR	MODERATE	MINOR
<input type="checkbox"/> High risk of disease or death from chronic respiratory and cardiovascular diseases <input type="checkbox"/> Life-threatening or serious harm and injuries from burnt and unstable structures <input type="checkbox"/> Increased risk of heat-related illnesses, including heat exhaustion, heat stroke and death <input type="checkbox"/> Diseases requiring hospitalization or medical treatment specifically for those with pre-existing health conditions such as asthma, chronic pulmonary obstructive disease, diabetes, heart conditions and other cardiovascular diseases <input type="checkbox"/> Loss of work capacity due to smoke, ash and high temperature <input type="checkbox"/> Cessation of all programmes or service availability flowing to other locations <input type="checkbox"/> Increased demand for medical visits or hospitalization for lung and heart diseases <input type="checkbox"/> Effects on mental health of staff <input type="checkbox"/> Health professionals are unable to arrive or depart from the facility building due to fire threat	<input type="checkbox"/> Increased threat to the health workforce resulting in physical injuries or intoxications from air pollution (smoke and ash, and from chemicals released into the air from burning of structures) <input type="checkbox"/> Increased impacts of noncommunicable diseases (cardiovascular diseases, respiratory diseases), especially among pregnant women, older health workers and outdoor workers <input type="checkbox"/> Increased threat of exposure to dust, ash and other products during clean-up operations, resulting in impacts on eyes, nose or skin irritation, coughing and other health effects <input type="checkbox"/> Cessation of some programmes or service availability <input type="checkbox"/> Significantly reduced performance capacity of the health workforce <input type="checkbox"/> Reduced availability and capacity of health services <input type="checkbox"/> Health workforce shortage due to reduced, or lack, of transport	<input type="checkbox"/> Minor injuries to health workers not requiring immediate medical treatment <input type="checkbox"/> Increased discomfort to health workers and patients due to air pollution and higher temperatures <input type="checkbox"/> Difficulty or interruption in delivering services, including primary care services at home <input type="checkbox"/> Emotional stress and mental and physical fatigue <input type="checkbox"/> Reduction of health workforce functions

WASH AND HEALTH CARE WASTE		
LEVEL OF IMPACT		
MAJOR	MODERATE	MINOR
<ul style="list-style-type: none"> <li><input type="checkbox"/> Degradation of water quality from forested catchment areas</li> <li><input type="checkbox"/> Disruption of the water system supply</li> <li><input type="checkbox"/> Shortage of safe water</li> <li><input type="checkbox"/> Possible interruption of water pumping due to power outages</li> <li><input type="checkbox"/> Increased demand for water causing water shortage</li> <li><input type="checkbox"/> Water contamination (from wildfire ash, dead animals, fire retardants, or damaged water pipes)</li> <li><input type="checkbox"/> Reduced capacity to use medical and laboratorial equipment that require potable water</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Possible degradation of drinking water treatment plants</li> <li><input type="checkbox"/> Likely unsafe water supply</li> <li><input type="checkbox"/> Reduced function of sanitation systems and hygiene practices</li> <li><input type="checkbox"/> Reduced capacity to use laundry and dishwashing machines</li> <li><input type="checkbox"/> Reduced capacity for accessing water for drinking and cooking</li> <li><input type="checkbox"/> Increased dependence on less safe water sources</li> <li><input type="checkbox"/> Damage to plastic pipes lying close to the surface</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increased demand for drinking water for health workers, especially for those that have outdoor activities</li> <li><input type="checkbox"/> Changes in demand of water use</li> <li><input type="checkbox"/> Minor disruption of health care deliveries</li> </ul>

ENERGY		
LEVEL OF IMPACT		
MAJOR	MODERATE	MINOR
<ul style="list-style-type: none"> <li><input type="checkbox"/> Interruption of power (if electricity supplies are deliberately disconnected for safety reasons, or as a direct result of the fire)</li> <li><input type="checkbox"/> Interruption of medical procedures that rely on electricity, such as dialysis, intensive care rooms, laboratories, oxygen therapy, radiotherapy, imaging and diagnostic equipment)</li> <li><input type="checkbox"/> Disruption of safe storage of medicines, vaccines and other essential refrigeration-dependent medical supplies</li> <li><input type="checkbox"/> Loss of medical and laboratorial supplies, vaccines, pharmaceuticals, milk, blood bank supplies, and other essential refrigeration-dependent medical supplies</li> <li><input type="checkbox"/> Disruption of fuel supply chain</li> <li><input type="checkbox"/> Disruption of energy-dependent water pumping and treatment</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Intermittent access to electricity leading to damage of medical and laboratorial equipment and devices</li> <li><input type="checkbox"/> Loss of alternative energy sources (such as power generators)</li> <li><input type="checkbox"/> Threats to stored fuels</li> <li><input type="checkbox"/> Increased demand for energy consumption from air conditioning</li> <li><input type="checkbox"/> Reduced capacity to provide health care that relies on electricity, such as dialysis equipment, intensive treatment rooms, laboratorial rooms, oxygen therapy, radiotherapy, imaging and diagnostic equipment</li> <li><input type="checkbox"/> Reduced capacity to use critical medical devices</li> <li><input type="checkbox"/> Increased general demand for energy consumption</li> <li><input type="checkbox"/> Increased energy use and costs</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Difficulty to provide thermal control causing increasing discomfort to health workers and patients</li> <li><input type="checkbox"/> Loss of food or difficulty in keeping food refrigerated</li> <li><input type="checkbox"/> Reduced capacity to use medical devices that rely on energy</li> <li><input type="checkbox"/> Possible downed/damaged power poles with potentially energized power lines, increasing the risk of electrocution</li> <li><input type="checkbox"/> Reduced capacity to provide cleaning and disinfection services that require electricity (laundry, dishwashing machines, autoclave, microwave)</li> <li><input type="checkbox"/> Difficulty following boil water alerts</li> </ul>



INFRASTRUCTURE, TECHNOLOGIES, PRODUCTS AND PROCESSES		
LEVEL OF IMPACT		
MAJOR	MODERATE	MINOR
<ul style="list-style-type: none"> <li><input type="checkbox"/> Fire damage to the premises</li> <li><input type="checkbox"/> Interruption of the supply chain for essential medical and laboratorial supplies</li> <li><input type="checkbox"/> Damage to medical and laboratorial equipment and devices (refrigeration of vaccines and some medications, sterilization processes, diagnosis and therapy equipment)</li> <li><input type="checkbox"/> Damage to communication and information systems</li> <li><input type="checkbox"/> Increase in cardiovascular and respiratory problems, burns, and complex emergencies, overwhelming the capacity of the facility</li> <li><input type="checkbox"/> Increasing indoor air contamination from smoke, threatening the health of patients and staff</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increased hospitalization rates requiring extra medical treatment, supplies and health workforce</li> <li><input type="checkbox"/> Possible indoor air pollution</li> <li><input type="checkbox"/> Possible indoor higher temperature</li> <li><input type="checkbox"/> Increased demand for medication dispensations for respiratory problems (asthma, bronchitis, chest pain, COPD, respiratory infections and cardiovascular diseases)</li> <li><input type="checkbox"/> Increased hospitalization rates requiring extra medical supplies and health workforce</li> <li><input type="checkbox"/> Increased demand for cooling areas and rest areas for staff</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increased demand for conducting coordinated strategies with health departments, other sectors, fire department and volunteers</li> <li><input type="checkbox"/> Increased demand for adaptation measures and plans to reduce heat effects, and smoke and ash exposure to the facility</li> <li><input type="checkbox"/> Increased costs for providing safety measures</li> <li><input type="checkbox"/> Disruption of food supplies</li> <li><input type="checkbox"/> Melted roadways disrupting transportation access</li> <li><input type="checkbox"/> Interruption of the supply chain including fans and air conditioning units</li> </ul>

Sources for tables of vulnerabilities and impacts: (1-3,21,32,38,41,44,46,56,57).

