Maryland
DEPARTMENT OF HUMAN SERVICES

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Maryland Department of Human Services Heat Illness Prevention and Management Plan

Contents

Plan implementation Date:

Acronyms and Definitions

Acronyms

AAA	Area Agencies on Aging
DHS	Department of Human Services, Maryland
DSS	Departments of Social Services
EMAC	Emergency Management Assistance
Compact EMS	Emergency Medical Services
HHS	Health and Human Services
HVAC	Heating, Ventilation, and Air
MDEM	Maryland Department of Emergency Management
MDH	Maryland Department of Health
MIEMAC	Maryland Intrastate Emergency Management Assistance
Compact MIEMSS	Maryland Institute for Emergency Medical Services
MTA	Maryland Transit Administration
NWS	National Weather Service
OEM	Office of Emergency
OP&R	Office of Preparedness & Response
SAL	State Activation Level
SCF	State Coordinating Function
SHA	State Highway Administration
SWEM	Statewide Emergency Managers

Definitions

Acclimatization: The body's temporary adaptation to work in heat that occurs as a person is exposed to intense heat over time.

Complex Heat Emergency – A Complex Heat Emergency is a condition of an extreme heat event with complicated conditions requiring additional response. Examples of such complications are water and power outages, or an extended heat wave.

Cooling Centers – A cooling center may vary among local jurisdictions. For this plan, a cooling center refers to a building managed by the Maryland Department of Health (MDH) or identified by a local Emergency Manager and as having air conditioning and potable water. A cooling center does not provide medical services. Other State Cooling locations may also include additional designated public locations with extended hours and bottled water to escape the heat, such as public libraries, malls, and community centers.

Extreme Heat Event – An extreme heat event is a weather condition with excessive heat and/or humidity that can potentially cause heat-related illnesses. An extreme heat event is defined as a day or series of days when the National Weather Service (NWS) has issued a Heat Advisory or Extreme Heat Warning.

Extreme Heat Warning – As defined by NWS, an Extreme Heat Warning is issued within 12 hours of the onset of extremely dangerous heat conditions. The rule for this Warning is when the maximum heat index temperature is expected to be 105°F or higher for at least 2 days and minimum nighttime air temperatures of 75°F.

Extreme Heat Watch – As defined by NWS, Heat Watches are issued when conditions are favorable for an extreme heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased with unpredictable temperature spike duration and outcome.

Heat Advisory – As defined by NWS, a Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The standard for this advisory is that the maximum heat index temperature is expected to be 100°F or higher for at least 2 days, and minimum nighttime air temperatures will be 75°F.

Heat Index – A measurement to determine a " real feel " of heat conditions using actual air temperature and relative humidity measurements. The Heat Index has become a key indicator for pending extreme heat events used by the NWS .

Heat-Related Illness – Heat-related illness refers to a group of conditions that happen when the body has trouble cooling itself down. This occurs when the body cannot get rid of heat efficiently enough to maintain its normal temperature in overheated conditions. Heat-related illnesses can present as a mild (e.g., heat rash and heat cramps) or severe (e.g., heat stroke) response. Mild heat-related illness resolves with rest or at-home treatments. Moderate or severe heat-related illnesses require prompt medical attention to avoid serious complications.

Indicators include:

- *Heat Rash* – Tiny, itchy bumps on the skin that develop when sweat gets trapped beneath the skin
- *Heat Cramps* – Painful muscle spasms in the abdomen, arms, or legs following strenuous activity while in extreme heat, and coupled with the additional loss of fluids and electrolytes.
- *Heat Exhaustion* – presents as a feeling of collapse, actual fainting, rapid pulse, nausea, profuse sweating, and cool skin. This response is prompted by prolonged exposure to heat leading to profuse sweating, loss of adequate fluid and electrolytes, abnormally high body temperature (hyperthermia).

- *Heat Syncope*- is fainting from heat with or following dizziness after prolonged standing in intense heat conditions, or when quickly changing from a sitting to standing position.
- *Heat Stroke* – A severe condition requiring emergency medical care, in which the affected person has an abnormally high body temperature (hyperthermia), caused by impairment of the body's temperature-regulating abilities resulting from prolonged exposure to excessive heat and characterized by cessation of sweating, severe headache, high fever, hot dry skin, and/or acute mental status changes. Serious cases may result in collapse or coma that can cause death or permanent disability if emergency treatment is not provided.

Heat Wave – A heat wave is a period of abnormally hot weather generally lasting more than 2 days. Heat waves can occur with or without high humidity. They can potentially cover a large area, exposing many people to hazardous heat.

Vulnerable Populations – Vulnerable populations include individuals disproportionately affected by extreme heat. These groups include infants and children, older adults, people with chronic or pre-existing medical conditions (such as asthma and heart disease), pregnant women, individuals experiencing homelessness, people taking certain medications, and those with no access to air conditioning. In addition, athletes and outdoor workers are more likely to become dehydrated and develop heat-related illnesses.

Purpose

The DHS Heat Illness Prevention and Management Plan is to provide guidance for all DHS offices to fulfill their operational duties and responsibilities.

Scope

This plan establishes the framework for DHS' employees response to extreme heat emergencies, defining roles, responsibilities, and procedures for protecting the public and safety of those impacted by extreme heat.

The Concept of Operations for this plan addresses operations that occur prior to the start of the heat season, during the heat season, and post heat season. The Office of Preparedness & Response (OP&R) within the Maryland Department of Health provides weekly heat reports on the OP&R webpage during each heat season. Enhanced operations are outlined to occur during an extreme heat event, such as a Heat Advisory or Extreme Heat Warning from the local weather stations or DHS. At the end of the extreme heat event, enhanced operations would stop and regular heat season operations resume.

Agency Offices Practical Actions

All actions listed for DHS offices in this plan must be comprehensive. Local Office leadership should employ a holistic approach to this plan based on area severity and to include individual area factors in handling extreme heat events. Chronological Implications in this plan may be inapplicable or impractical based on varying area conditions .

Organizations outside of DHS with permits to host public events may advise area shut down protocols not mentioned in this plan due to a localized weather emergency, Heat Advisory, Extreme Heat Warning/Watch, or related Emergency. The Office of the Secretary at headquarters is always a reliable partner in all DHS office considerations and determinations. DHS Risk Management, at DHS headquarters will provide updated targeted risk communication messaging based on MDH's public messaging during extreme heat; to include State Cooling Centers information.

Maryland Regulations on Worker Protections

Maryland's Heat Stress Standard, COMAR 09.12.32 went into effect September 30, 2024. The standard applies to all workplaces where the heat index is 80° F or higher.

Concept of Operations

DHS Annual Heat Plan Readiness

- Conduct an annual review of the DHS Heat Illness Prevention and Management Plan and update as necessary.
- Distribute the Extreme Heat Emergency Plan to DHS locations and other working partners.
- Provide guidance and recommend best practices to aid all DHS locations in Extreme Heat Emergency Plans.
- Update DHS website to include accurate DHS Extreme Heat Operational and contact information.
- Review and apply Continuity of Operations planning in conjunction with preparation for extreme heat events.
- Provide initial Heat Stress training to employees and supervisors prior to an employee's first exposure to excessive heat.
- Re-train employees and supervisors at least annually and immediately following any incident at the worksite involving a suspected or confirmed heat-related illness.
- Provide updated DHS office contact information on the DHS website .
- Provide access to existing and new public education materials on Extreme Heat, including fact sheets and links, found on the Maryland Department of Health website.

DHS Heat Season Operations

All actions identified will be completed throughout the Heat Season and during all extreme heat events.

- DHS will maintain passive situational awareness of environmental temperatures and closely monitor the heat index throughout the work shift.
- DHS will assess heat conditions for employees, especially those most vulnerable to heat stress, through use of the local weather data reported by the National Weather Service (NWS); more frequently during extended heat waves lasting more than 3 days, or during any other factors that would exacerbate a heat emergency.
- DHS will proactively monitor other State applicable data.
    - NWS determines the potential heat and relative humidity impact in the forecast. The Maryland Department of Emergency Management (MDEM) and DHS' Office of Emergency Management will monitor data from all three NWS stations; Baltimore/Washington; Mt. Holly, NJ; and Wakefield, VA.
    - MDEM will monitor power outages in the state and provide the information on their Maryland Power Outages site. Power outages can also be directly monitored at PowerOutage.us.
- DHS and Local Offices will communicate and monitor weather forecasts for the possibility of predicted weather related conditions consistent with extreme heat and applicable to various State areas, and
    - employ consistent messaging that urges individuals to check on each other and those we serve.
    - coordinate applicable messaging to staff and those we serve, to include locations for cooling centers and transportation options; with public access numbers such as non-emergency dispatch 211 and Maryland 311.
- DHS will conduct continuity of operations and tactical planning assessments.
- DHS will review needs to add or reduce staffing and emergency support services when necessary.
- DHS will execute the "Heat Advisory Plan Termination" notification to end this contingency plan for all DHS Locations when the Heat Advisory expires and deem it safe to revert back to normal operations.

DHS Training

DHS has provided an intera-agency Heat Stress Standard Training, required for all DHS employees and supervisors, to communicate the Maryland Department of Labor's Heat Stress regulations and to:

1. Ensure staff awareness surrounding exposure to high heat and to emphasize the additional responsibilities of the Supervisor's role in this plan.

2. Educate the DHS plan's accordance with the Code of Maryland Regulation; COMAR 09.12.32
3. Re-train employees and supervisors at least annually prior to exposure, and immediately following any incident at the worksite involving a suspected or confirmed heat-related illness.
4. Present training in a language and manner that all employees and supervisors can understand.

    a. The work and environmental conditions that affect heat illness;

    b. The personal risk factors that affect heat illness;

    c. The concept, importance, and methods of acclimatization;

    d. The importance of frequent consumption of water and rest breaks in preventing heat-related illness;

    e. The types of heat illnesses, signs and symptoms of heat illnesses, and the appropriate first aid and emergency response measures to include when to call 911

    f. The importance of and procedures for employees immediately reporting to the employer signs and symptoms of heat illness; and

    g. The employer's procedures and the requirements for complying with Chapter 32, the Heat Stress Standards.

DHS Risk management will maintain training records for one year from the date on which the training occurred.

DHS Heat Emergency Procedures

DHS is to follow an emergency response plan in accordance with regulation .09 of COMAR 09.12.32

**These regulations exclude emergency operations and essential services staff*

Management

- The Division of Administrative Operations, Risk Management is in charge of the DHS Heat Emergency Procedures
- Area Supervisors must be available for staff to assist in a Heat Related emergency and to call 911.

DHS Heat Emergency Actions

- **Reporting**

  Refer to the Heat Stress Standard Process Standard

- **Access to Water**
  - All DHS facilities have water fountains which provide cool potable water.
  - Local Offices may request assistance from the private sector to provide and distribute additional water.

- **Treatment**
  - *M*ove out of the heat and into a shady area or air-conditioned location.
  - Lay down and raise the legs and feet slightly.
  - Remove tight or heavy clothing.
  - Apply a cool towel at the base of the head and around the shoulders.
  - Sip chilled water, a sports drink containing electrolytes, or another caffeine free, non-alcoholic beverage.
  - Choose lightly salted liquids when cramps are present.

♦CALL 911 F. A. S. T.♦

When intense heat causes fainting, vomiting or other signs of possible **Heat Stroke**, remember the acronym **F. A. S. T** for quick awareness and response**:**

Face movements change or become weak on one side.

Arms drop and weaken.

Speech and understanding become difficult.

Time must be considered when any of these symptoms are observed, call 911 FAST.

Acclimatization Plan

- Employers shall provide for acclimatization for employees during high heat and implement a written acclimatization schedule in accordance with regulation .05 of COMAR 09.12.32
- Successful acclimatization schedules:
  - gradually increases exposure time over 5-14 days, with a maximum 20 percent increase each day
  - considers alternative cooling and control measures to enhance acclimatization, and
  - uses the current National Institute for Occupational Safety and Health's recommendations for acclimatization

Shade

- DHS will provide shade to employees or an area that will remove them from direct sun. Other areas may be air-conditioned rooms or a cool building location for a minimum rest period of 20 minutes.
- Scheduled breaks will be provided for those that work outdoors or in a building that reaches over 80 degrees.

Awareness of Long Term Health Effects of Heat Stress

Cardiovascular Issues: Prolonged exposure to high temperatures without breaks can strain the heart, increasing the risk of heart disease and hypertension.

Kidney Damage: Chronic dehydration from heat stress can lead to kidney dysfunction and therefore an increase in the risk of kidney disease.

Neurological Effects: Heat stroke can cause lasting cognitive and motor impairments.

Mental Health Effects: Heat waves have been linked to increased anxiety, mood disorders, and even schizophrenia-related conditions.

DHS Termination of Heat Emergency Plan

- Actions related to heat emergency stop once the complicating factors have been resolved and revert to the following:
    - Heat Advisory Operations if a Heat Advisory is still in effect.
    - Heat Season Operations if all advisories have expired.

Post-Heat Season Operations

The DHS Heat Season Plan Activities conclude at the end of September, unless Maryland State subject matter experts recommend a different termination plan date.

DHS Actions

- Collect After-Action Reports, when applicable, from affected local offices and determine best practices to be included in the following year's planning efforts.
- Collect, analyze, and release statewide surveillance data from the heat season for use in future heat planning.
- Coordinate with DHS Risk Management on an annual heat plan review.
- Identify organizations who also serve vulnerable populations to partner with the following heat season.