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PUBLIC HEALTH ADVISORY

To: All HAN Recipients
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Subject: **Extreme Heat Coming to Maine this Week**
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Extreme Heat Coming to Maine this Week

Summary
After a stretch of relatively cool weather, summer has arrived in Maine, and weather conditions are expected to turn very hot and humid this week. Forecasts suggest that the heat wave will begin on Tuesday, impacting much of the state, and could become record-breaking on Wednesday and Thursday before easing by the weekend. Overnight temperatures are expected to remain high, preventing people from getting relief and causing heat to build up in buildings without air conditioning.

Hot weather conditions like these can cause heat-related illnesses such as heat stroke, exacerbate chronic health conditions, and lead to severe complications and death. Extreme heat is infrequent in Maine, and high humidity levels make it feel even hotter by preventing the body from cooling itself efficiently through sweating. Residents and visitors may not be well-adapted to these conditions, and rates of home air conditioning, one of the best preventative factors for heat-related illness, are some of the lowest in the country. These factors put all Mainers at risk of heat-related illness. Many Mainers are more vulnerable to heat-related illness because of older age, chronic health conditions, or other factors.

Maine CDC encourages health care providers, caregivers, and public health professionals to recognize the threat that extreme heat poses to health, to become familiar with new U.S. CDC resources for clinicians, and to share relevant messages with those in their care.

Background
Extreme heat is a serious public health threat. Over the past 30 years in the U.S., more people have died from exposure to extreme heat than from all other weather events combined. People in northern climates like Maine are more susceptible to heat-related illness than people in southern climates, are more likely to be affected at lower temperatures because they are less adapted to extreme heat, and do not have access to air-conditioned spaces, as many homes, businesses, workplaces, schools, and residential facilities are not air-conditioned. Only about 70% of Maine households have air conditioning, much lower than the rest of the country, where 89% of homes have air conditioning.

Extreme heat events are relatively rare in Maine, and they can cause significant morbidity and mortality when they occur. Research by Maine CDC showed an approximately 10% increase in both all-cause ED visits and all-cause deaths on hotter days (days with a heat index of 95 F or higher) than on cooler days (days with a heat index of 75 F). Rates of ED visits for chronic diseases such as kidney disease and asthma were also higher on hotter days.

Recommendations for Health Care Facilities
Health care facilities should anticipate and plan for an increase in patients seeking care for emergent illnesses during the period when extreme heat is occurring and potentially continuing for 1–3 days afterwards.

Residential and long-term care facilities should monitor residents very carefully for signs of heat-related illness, especially if the facility is not air-conditioned. Residents may be disproportionately vulnerable to the effects of extreme heat exposure, due to factors like age, chronic conditions, certain medications, and limited mobility. Long-term care facilities with contingency plans for extreme heat should be prepared to implement those plans this week. Floor fans can help improve air circulation, and internal cooling centers can provide short-term relief.

Recommendations for Clinicians and Caregivers
U.S. CDC provides information for healthcare professionals, including a quick start guide; age-related, medical, social, behavioral, recreational, and occupational risk factors for health impacts from exposure to extreme heat; medications that can predispose people to heat-related illness on hot days; and further guidance for children with asthma, pregnant persons, and persons with cardiovascular disease. Other groups of particular concern include persons who work outdoors or in hot indoor environments; infants, children, and youth; and older adults, especially those living alone.

Clinicians should remind at-risk patients and their caregivers about the importance of limiting time outdoors during periods of extreme heat, along with staying hydrated, seeking cool spaces, and seeking medical care for heat-related illnesses. Clinicians can also use the new U.S. CDC tools to assess a patient's risk for heat-related illness, teach patients how to assess when heat is dangerous to them, and help them create a Heat Action Plan.

During hot weather, monitor anyone in your care

- Check in twice a day on older persons and people who cannot care for themselves
- Encourage them to stay hydrated, unless they take medications that interfere with fluid balance
- Look for signs of heat-related illness, especially heat exhaustion and heat stroke
- Make sure they have access to air conditioning (if not at home, then consider a local cooling center; visit MEMA's website or call 211 for locations)
- Make sure they never leave anyone, especially children, pets, or those with special needs, in a parked car, even briefly, as temperatures in the car can become dangerously hot within a few minutes

Recognize and manage heat-related illness
Heat-related illnesses include heat stroke (hyperthermia), heat exhaustion, dehydration, heat syncope, heat cramps, heat rash, and sunburn. **Heat stroke** and **heat exhaustion** are the most severe manifestations, and distinguishing between these two conditions is important for appropriate treatment:

- **Heat stroke (hyperthermia)** may present with hot, dry, red skin; no sweating; rapid pulse; temperature above 105 F; headache; rapid, shallow breathing; loss of alertness; confusion; unconsciousness or coma. *If you see someone with these signs, call 911 immediately and move the person to a cool or shady place. Loosen their clothes and cool them rapidly with ice, fans, cool water, wet cloths, or ice water immersion.*

- **Heat exhaustion** may present with heavy sweating; fainting; cold, pale, clammy skin; headache; nausea; vomiting; weakness; and dizziness.
  If you see someone with these signs, move the person to a cool place, have them drink fluids and rest, loosen their clothes, and cool them off with water or wet cloths. Heat exhaustion can quickly lead to heat stroke. Get medical help if symptoms worsen or do not improve.

Key Messages for Patients and the General Public

- **Keep cool inside:** Use air conditioning in your home, or go to an air-conditioned public place like a store, public library, restaurant, or cooling center. If you can't access air conditioning, take frequent cool showers or baths. Cool the house by closing windows and shades during the day and opening them back up at night.
- **Keep cool outside:** If you have to be outdoors, stay out of the sun as much as possible (or shift your activities to the early morning or evening, as long as the air quality is good), take frequent breaks from activity, and wear loose, lightweight, light-colored clothing, a hat, and sunscreen.
- **Stay hydrated:** Drink more fluids than usual, even if you don't feel thirsty, and avoid alcohol, caffeine, and sugary drinks if possible. Check with your doctor first if you take water pills or diuretics.
- **Know the symptoms:** Monitor yourself and those around you. Seek medical care if anyone experiences symptoms like muscle cramps, very heavy sweating, shortness of breath, dizziness, headaches, confusion, weakness, or nausea.
- **Recognize your risk:** Check the U.S. CDC HeatRisk page to see the heat forecast for your area, and learn what to do if you or someone you care for is more at risk from extreme heat.
- **Check on your family, neighbors, and friends:** Be sure to check in on those around you who live alone, who don't have air conditioning, or who might otherwise need assistance.

Additional Resources

- Access Maine CDC Heat Illness information and resources: http://www.maine.gov/dhhs/mecdc/environmental-health/heat/index.html
- View and download Maine CDC Heat Illness tip sheets:
  - General audiences: https://www.maine.gov/dhhs/mecdc/environmental-health/heat/documents/TipsToBeatTheHeat.pdf
  - Children: https://www.maine.gov/dhhs/mecdc/environmental-health/heat/documents/KeepingKidsSafe.pdf
- View the National Weather Service's HeatRisk forecast: https://www.wpc.ncep.noaa.gov/heatrisk/
- Explore general heat and health information and resources from U.S. CDC: https://www.cdc.gov/heat-health/about-heat-and-your-health.html
- Learn about ways to prepare for extreme heat at Ready.gov: https://www.ready.gov/heat
- Explore near real-time data on daily heat and heat-related illness emergency department visits on the MaineTracking Network: https://data.mainepublichealth.gov/tracking/heat