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# Planning for Extreme Temperatures

## *Response problem or social problem?*

**M**any of the extreme temperature event plans that I have reviewed are what I call "all or nothing" plans: the event serves as an on/off switch for the plan. However, while we can define the broad parameters of an extreme temperature event, we cannot plan for every possibility. What we need is not an on/off switch but a rheostat. We need to assess the event and decide how the plan should be implemented.

Extreme temperature event plans traditionally use weather forecasts as the trigger for implementing the plan. However, temperature is an indicator, not a measure of risk. A single day of extreme temperatures is not usually a crisis. However, successive days of moderately high temperatures with no night time cooling might be. Similarly, seasonally normal cold temperatures occurring during a shortage of heating oil could pose a risk to vulnerable populations.

Our plans, therefore, should provide for the identification and monitoring of risk indicators. They should also identify who makes the call to implement the plan. This is not as simple as it sounds. There is usually

no single agency that monitors all potential risk indicators all the time. Further, agencies differ in perspective as to what constitutes a crisis. You might find the need to take a team approach, with various agencies monitoring different indicators and the team convening via conference call or web meeting to review indicators and make a recommendation to the decision-making authority.

An important part of this recommendation is the determination of what plan elements will be needed. This is where the Emergency Management Principle of Flexibility comes into play – not all plan elements are needed all the time. Resources must match risk.

### **Operational Flow**

Most extreme temperature event plans recognize three main phases:

- **Seasonal awareness** – This is usually characterized by increased monitoring of indicators and the issuing of safety messages through the media and social welfare visits.
- **Preparedness** – This will normally begin when risk indicators suggest that an extreme temperature event

is likely to occur. This phase is characterized by a ramping up of resources that might be needed to respond to an event.

- **Response** – During this phase, an extreme temperature event is occurring and resources are deployed and managed as we would for any event.

The key to a successful plan is to understand that an extreme temperature emergency is a social problem, not a response problem. Therefore, the three phases must specifically and deliberately target those populations most vulnerable to extreme temperatures.

Understand that I am not advocating focusing exclusively on at-risk populations. Extreme temperatures certainly have an impact on the population at large. For example, in 2010, Russia had over 1200 drowning deaths attributed to hot temperatures and drinking. However, we do not specifically target our outreach efforts to those who most need it.

A good example of this is our seasonal safety messages. We generally rely on pamphlets and public service announcements. However, we do not always provide tools to social or outreach workers or provide any in-service training for them to pass on to their clients.

During preparedness, we're good at identifying potential cooling and warming sites and preparing press releases. However, we don't always plan for increasing the number of available medical transport resources or for increasing the number of outreach contacts by extending shifts, recalling personnel, or cancelling leaves.

In responding to an extreme temperature event, we tend to apply resources for those

things we do well, e.g. public warning and the establishment of fixed facilities. Since, as emergency managers, we seldom work at the micro-level of one-on-one contact, we don't always consider this need.

## Improving Your Plan

So how do we establish an effective plan for extreme temperature emergencies?

1. Understand the true nature of the problem. Remember that the impact of an event is a factor not only of the magnitude of the event (e.g. temperature) but also of the vulnerability of the affected population. A good place to start is the [Excessive Heat Events Guidebook](#) published by the Environmental Protection Agency.
2. Understand the unique factors of your community. Urban communities can magnify the effects of high temperatures by serving as heat sinks. Rural communities may be more affected by cold temperatures because of isolation and the impact on agriculture. What specific vulnerabilities are posed by your community's physical infrastructure and cultural values?
3. Include social services agencies on your planning team
4. Identify and plan for monitoring risk indicators. Determine who will decide when those indicators suggest a crisis is imminent or occurring.
5. Plan for a flexible response.
6. Plan for increased outreach to vulnerable populations.
7. Plan for additional outreach staff and transportation assets.

Extreme temperature events are foreseeable and an effective plan for dealing with them can be developed. The key is to focus on the real problem associated with them: social vulnerability. 