Climate Change, Extreme Heat, and People with Disabilities

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www.WiD.org/NED

Part 1: Feb 4, 2015
Part 2: Feb 26, 2015
Part 1: Extreme Heat, Climate Projections, and Health Impacts

When we think about climate change, a few things come to mind. Stronger storms, sea level rise, drought, and generally warmer temperatures. But from my conversations, one consequence isn’t talked about as much: heat waves. While they aren’t as dramatic as category-5 hurricanes or abandoned, flooded cities, they can be just as serious. Managing their impacts is also extremely tough for a number of reasons. And when they do hit, they’ll likely hit people with disabilities harder than the general population - but protecting those people with disabilities will be a tricky task.

In this post, I’m going to give an overview of the dynamics of extreme heat events and how they affect the body. Extreme heat is dangerous because it overwhelms the body’s ability to keep cool and within a healthy core body temperature. Then, if we go above certain limits, we can experience exhaustion, stroke, or even death. Subsequent posts will look at existing extreme heat management plans, and how those can be adjusted to address the needs of people with disabilities.

Health Impacts of High Heat

The human body is pretty darn good at keeping itself going in a bunch of situations, including a wide array of weather. As far as hot and cold goes, we’ve evolved to operate with a core body temperature of 98.6°F (it can vary slightly, but that’s pretty much the baseline). In order to maintain that core temperature, we have a set of “thermoregulation” processes. When it gets cold, our muscles move and we get increased blood flow to warm things up. And when it gets hot (or when our bodies get hot from exercise), we begin to sweat. Sweating cools us down because the evaporation of moisture off our skin helps to suck away heat (it’s like a dog’s saliva when it pants, but all over our body).

But when it gets so hot that our maximum sweating just won’t cool us off enough - and/or so humid that sweat has trouble evaporating in the first place - our bodies can experience dangerous heat-related symptoms. The Centers for Disease Control (CDC) has information on heat-related illness here: http://www.cdc.gov/niosh/topics/heatstress/#_Heat_Syncope And here’s a quick rundown:

The first major problem is “heat cramps,” where excessive sweating takes away water and salt, and muscles start to cramp up from dehydration. It’s pretty simple: we need to have water and salt in our bodies to keep tissue healthy, but we lose water and salt through sweating when it gets hot. That’s why professionals always recommend drinking lots of water on hot days - and it’s also good to have drinks with electrolytes, which can replenish sodium, chloride, and potassium lost in sweat. Heat cramps can be uncomfortable and get in the way of activity, but they don’t usually threaten one’s health.

The next step is “heat exhaustion,” which is the body’s reaction to extreme dehydration and salt loss. Basically, it’s similar to heat cramps but taken to another level, and can pretty well keep someone from doing any activity. The symptoms of heat exhaustion include dizziness, nausea, fatigue, confusion, and shallow breathing - and it can be extremely dangerous for one’s health.
The most dangerous heat-related illness is “heatstroke,” where the body’s thermoregulation processes fail to keep the body’s temperature at 98.6°, and eventually start to shut down. According to the CDC, heat stroke is the most serious heat-related disorder. It occurs when the body becomes unable to control its temperature: the body’s temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Extreme heat events can contribute to excess deaths in other ways, such as exacerbating cardiovascular disease or kidney function problems. And with all of these, certain populations are especially vulnerable. The young, the elderly, and those with existing medical conditions are more susceptible to heat-related illness. Occupational and living situations also have an influence: those undertaking more strenuous physical activity, or people who live in housing with poor ventilation or no AC, will also be hit harder than others.

**Heat-related health concerns especially touch people with disabilities.**

First off, extreme heat impacts people with disabilities for physiological reasons: for example, people with multiple sclerosis have been shown to experience greater pain and fatigue on hot days, and some people with spinal cord injuries (like myself) don’t have the ability to sweat as a means of cooling down. And socioeconomic factors, such as disproportionate rates of poverty and substandard housing for people with disabilities, create other problems; notably lower AC ownership or, if housing has AC, not enough money to run it regularly. Some PWD only have physiological vulnerabilities (i.e. someone with MS that has household AC) and some only have socioeconomic vulnerabilities (non-heat-sensitive disability but without AC), but those with both are at especially high risk for heat-related illness.

Ultimately, extreme heat events can present major threats to public health. In fact, the 2003 heatwave in Europe ([http://en.wikipedia.org/wiki/2003_European_heat_wave](http://en.wikipedia.org/wiki/2003_European_heat_wave)) is said to have contributed to at least 30,000 excess deaths over a three-month span (some sources say 70,000), and mortality spiked during an especially hot seven-day stretch in August. The number of deaths will only go up as climate change progresses: a recent report by the National Resources Defense Council (NRDC) projected 130,000 excess deaths from heat waves in 40 major US cities through the end of the century. ([http://www.nrdc.org/globalwarming/killer-heat/](http://www.nrdc.org/globalwarming/killer-heat/)) It’s thus imperative that there be strong extreme heat emergency plans, especially as climate change presents stronger and more frequent extreme heat events.
Categories of Extreme Heat

Extreme heat comes in many forms, and each type affects people’s health in its own way. Various locations experience extreme heat differently (from the hot & humid south to dry Arizona), and everywhere will be facing changes going forward. Here’s an overview of how extreme heat works:

1: Extreme Heat Days

Extreme heat and heat waves come in many forms and vary depending on locations and their characteristics. An “extreme heat day” is a single day with exceptionally high temperatures, which can stress the body’s ability to stay cool. Cal-Adapt, which some of the following graphs are sourced from, defines an extreme heat day as “a day in April through October [in California] where the maximum temperature (Tmax) exceeds the 98th historical percentile of maximum temperatures based on daily temperature data between 1961-1990.” It’s important to note, then, that the temperature limit for extreme heat days varies on location: this is because individuals tend to adjust to their local climate, and become overwhelmed with variance from the norm (that’s why someone in Saudi Arabia can be comfortable in 100°+ temperature while a Berkeley resident will be grumpy in the high 80s). In fact, Cal-Adapt lists Sacramento’s extreme heat day threshold at 101°, but Berkeley’s at 86°.

2: “Warm Nights”

Going through a hot day can be very taxing on the body, and cooler nights provide an opportunity for us to take a rest from the stress of thermoregulation. If the night is too warm, the body can’t fully recover and the subsequent warm day is that much more taxing. Again, these vary based on location and historical temperature averages.

3: “Heat Waves”

A heat wave is defined as 5 consecutive “extreme heat days.” Consecutive extreme heat days are especially tough on the body, leading to more related exhaustion and potential for outright collapse. The body has to work every second to keep itself cool - so if a hot day is the equivalent of a tough jog, a heat wave is a marathon. This is even more so when the nights throughout the heat wave are warmer than usual.

It’ll Get Hotter

As atmospheric CO2 increases, we will see a greater frequency and intensity of extreme heat days, warm nights, and heat waves. For a visual, here’s a compilation of graphs from Cal-Adapt of the frequency of each, plus duration of heat waves and timing of extreme heat days, for Berkeley, California (my home) from 1950-2100. The left-hand column shows models under a “lower emissions” scenario, and the right-hand column is under a “high emissions” scenario - which is regrettably pretty likely. The trend is frightening: just looking at extreme heat days, Berkeley has seen a historical average of less than 5 per year. But under a low-emissions scenario, there could be some years with 40+ days per year by 2100; and
a high-emissions scenario would put it to 80+ days range. And the rest follow a similar trend of greater frequency and intensity.

Here’s a table of the data, using “historical averages” and maximum numbers by 2100, for low emissions and higher emissions scenarios (Historical averages might be off by 1 or 2, as I got them by glancing closely at the graph):

<table>
<thead>
<tr>
<th>Event</th>
<th>Historical average</th>
<th>Max. amount by 2100 (lower emissions)</th>
<th>Max. amount by 2100 (higher emissions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extreme heat days (87° F or higher):</strong></td>
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<tr>
<td></td>
<td>Historical average: 4</td>
<td>Max. amount by 2100 (lower emissions): 46</td>
<td>Max. amount by 2100 (higher emissions): 87</td>
</tr>
<tr>
<td><strong>Warm nights (59°F or higher)</strong></td>
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<tr>
<td></td>
<td>Historical average: 4</td>
<td>Max. amount by 2100 (lower emissions): 60</td>
<td>Max. amount by 2100 (higher emissions): 122</td>
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<tr>
<td><strong>Number of heat waves</strong></td>
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<td></td>
<td>Historical average: None given - every year had either 0 or 1</td>
<td>Max. amount by 2100 (lower emissions): 5</td>
<td>Max. amount by 2100 (higher emissions): 13</td>
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<tr>
<td><strong>Max. duration of heat waves</strong></td>
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<tr>
<td></td>
<td>Historical average: none given - all were under 8 days</td>
<td>Max. amount by 2100 (lower emissions): 13</td>
<td>Max. amount by 2100 (higher emissions): 21</td>
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## Extreme Heat Projections for Berkeley, CA 1950-2100

<table>
<thead>
<tr>
<th></th>
<th>LOW EMISSIONS</th>
<th>HIGH EMISSIONS</th>
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<tbody>
<tr>
<td># of Extreme Heat Days per Year</td>
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<tr>
<td># of Warm Nights per Year</td>
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<td># of Heat Waves per Year</td>
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<tr>
<td>Max. Duration of Heat Wave</td>
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<tr>
<td>Timing of Extreme Heat Days</td>
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The Humidity Factor

The way that we feel heat is through a combination of heat and humidity. We feel warm when it’s hot outside, but even warmer when it’s hot and humid. The reason that we feel warmer is because of how we cool down:

The human body normally cools itself by perspiration\(^1\) or sweating. Heat\(^2\) is removed from the body by evaporation\(^3\) of that sweat. However, relative humidity reduces the evaporation rate because the higher vapor content of the surrounding air does not allow the maximum amount of evaporation from the body to occur. This results in a lower rate of heat removal\(^4\) from the body, hence the sensation of being overheated.

There are a number of ways to calculate this combination of heat and humidity, one of which is the “heat index” link above. And as the Earth warms more, the heat index might get to the point where it will be impossible to survive without active cooling (air conditioner or otherwise). “Risky Business\(^5\),” a great report outlining nationwide climate change impacts, highlights the potential for crossing a “humid heat stroke index” (HHSI) threshold:

The human body’s capacity to cool down in the hottest weather depends on our ability to sweat, and to have that sweat evaporate on our skin. Sweat keeps the skin temperature below 95°F, which is required for our core temperature to stay around 98.6°F. But if the outside temperature is a combination of very hot and very humid—if it reaches a HHSI of about 95°F—our sweat cannot evaporate, and our core body temperature can rise until we actually collapse from heat stroke. Even at an HHSI of 92°F, core body temperatures can get close to 104°F, which is the body’s absolute limit.

To date, the U.S. has never experienced heat-plus-humidity at this scale. The closest this country has come was in 1995 in Appleton, Wisconsin, when the HHSI hit 92°F. (At the time, the outside temperature was 101°F and the dew point was 90°F.) The only place in the world that has ever reached the unbearable HHSI of 95°F was Dhahran, Saudi Arabia, in 2003 (outside temperature of 108°F, dew point of 95°F). (Risky Business\(^6\) pg 31)

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1 http://en.wikipedia.org/wiki/Perspiration
2 http://en.wikipedia.org/wiki/Heat
4 http://en.wikipedia.org/wiki/Heat_index
But days with HHSI above 95°F are likely to happen regularly as we move down the line. The map provided in Risky Business paints a frightening picture:

As the map shows, the Midwest, Northeast, and Great Lakes regions would experience a measurable number of days with physically unbearable temperatures by 2100, under business-as-usual emissions. And by 2200, days with HHSI >92°F will appear nationwide, while the aforementioned regions will see tens of high-HHSI days per year. Worse yet, some regions will see the 95°F threshold broken regularly:

Our research shows that if we continue on our current path, the average Midwesterner could see an HHSI at the dangerous level of 95°F two days every year by late century, and that by the middle of the next

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7 http://s6.postimg.org/5lwetr5dt/HHSI.jpg
century, she or he can expect to experience 20 full days in a typical year of HHSI over 95°F, during which it will be functionally impossible to be outdoors. (Risky Business pg. 31)

Heat waves are one thing, but high humidity takes them to a whole other level. Heck, I remember one summer in my early teens when I visited New York City. The temperature was about as high as I’d seen over in California, but the humidity made it nearly unbearable. And both will keep going up.

Serious Stuff

So what does this all mean? Well, it’s pretty clear that extreme heat poses serious health risks for all people, especially those with physical or socioeconomic vulnerabilities. Anybody that’s been outside in a heat wave (or just a humid summer) knows it can be tough to manage. And past experience, such as the 2003 European heatwave, shows that extreme heat can be a public health emergency, even a widespread killer.

This is notably different than climate change’s other impacts, such as storms and drought. Extreme heat and humidity combined are (as far as I can see) the only impacts that will just kill somebody right when they step outside, or even when they’re inside, depending on the A/C situation. Plus, air-conditioners rely on electricity to operate, and blackouts are a lot more likely on hot days - so there is no guarantee that there will be “cool places.”.

Just as with the other aspects of climate change, we need to adapt. First, we need to expand emergency plans for extreme heat, such as designating more cooling shelters and improving warning systems. Then, we need to make sure that those plans address everybody’s needs, especially the most vulnerable. Given that people with disabilities are clearly at high risk of heat-related illness for many reasons, they need to be taken into account in all of our plans.

In the next couple posts, I’ll talk about existing heat emergency plans and how they are being implemented. And then I’ll brainstorm ways that those plans can address the vulnerabilities and needs of people with disabilities, so that we are safe and healthy as the temperature rises.
Extreme Heat Part 2: Emergency Planning for People with Disabilities

So, the last post mentioned upcoming changes in extreme heat events: that they'll become more frequent and more intense as the years go on. It also talked about the many health consequences of high heat, such as heat exhaustion and heat stroke, and the several ways that people with disabilities will disproportionately experience those consequences.

There are already a number of recommendations for how governments can develop effective heat emergency plans. Because of the nature of heat waves themselves, effective plans must be multifaceted and thorough. Some actions are intended to minimize building temperatures, such as installing insulation or air-conditioners (and providing financial assistance to run those ACs); some establish cooling centers to get respite from the heat; and all must take into account how to educate the local population about best practices and alert them to upcoming extreme heat events. In general, Heatwave Early Warning Systems (HEWS) are one key component, especially for more socially isolated individuals. The National Institutes of Health has a fantastic overview of HEWS in Europe, including extensive lists of programmatic aspects to be considered (tables 1 & 4). In Europe, 12 of 33 countries had documented HEWS, and none of these were truly comprehensive (some only had a few notable aspects); so there’s certainly room for improvement.

Within these heat emergency management sub-sections, it’s possible to specifically address the needs of people with disabilities. For example, subsidized household air-conditioners and electricity discounts can be targeted to people with heat-sensitive health conditions. With regards to heat emergency warnings, agencies can identify disability-related communication channels, such as automated phone calls through Medicaid phone directories. Cooling centers should absolutely be physically accessible and paratransit should prepare to handle the increased load of riders to those centers; and as levels of mobility and medical needs vary (i.e. some people may need bulky, difficult-to-transport medical equipment), emergency plans should anticipate such needs and be adjusted accordingly.

Simply because there are so many aspects to heat emergency management, I’m going to lay out the various subsections in short paragraphs or bullet points

**Individual/household-level actions**

Most people will not significantly change their general daily routine during an extreme heat event. That includes time spent at home (and especially asleep in bed), heading to work, and certain necessary errands. Depending on their housing condition, folks might try to find a park with lots of shade or an air-conditioned mall - basically, a place to cool down, given that the body can only take so much sustained

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8 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3290979/
excess heat - or, if they have the option, a friend’s house that has air-conditioning. Still, officials have a number of recommendations for people with and without disabilities on how to prepare for, and manage through, extreme heat events. However, there are some limitations in these for people with disabilities: For example, someone may have difficulty reaching a cooling shelter if they use home-based medical equipment, or they might struggle with air-conditioning bills given below-average incomes. These are some general recommendations for individual-level actions, and how to accommodate those for people with disabilities.

**Limit physical activity, and manage food & water intake.**

These basic actions can help the body keep cool as much as possible, given an otherwise uncontrollable outside temperature. Physical activity can increase the body’s metabolism, which creates internal heat. Likewise, digesting tough-to-process foods (such as high-protein meat) takes energy and raises body temperature, so certain types of foods are preferable. Drinking plenty of water is also key, as it helps rehydrate after excess sweating; on the flipside, diuretic food and drink (especially caffeine) should be avoided. In general, there are few restrictions for people with disabilities in this category. Some things to consider are eating appropriate food that still works with disability-related dietary restrictions, and drinking appropriate levels of water that work with personal attendant schedules for feeding and bathroom care (or scheduling extra help as needed).

**Work with support network to monitor and address heat-related needs.**

During extreme heat, family and friends should be checking in with each other to make sure that they are safe and healthy. This is especially so for people with disabilities. First, members of their support network - caregivers, family, and friends - should be educated about the characteristics and impacts of heat waves, and how they will especially impact the person with a disability. In tandem with the person with a disability, they should divvy up responsibilities around checking in, monitoring the person’s health, and providing help (say, with hydrating or directing fans) as needed. They should also be included in any emergency plans - such as identifying cooling shelters or support network members’ air-conditioned homes, and coordinating transportation to/from; or in the worst case, figure out local hospitals for managing heat exhaustion or even heatstroke - and again split up responsibilities as needed.

**Identify local cooling shelters, figure out transportation logistics & daily needs to make it through a day of extreme heat.**

Generally, local government agencies provide info (usually on a website or through TV/radio announcements) about area cooling shelters, such as malls and libraries - and they will designate specific locations as primary shelters on hot days. At the beginning of summer, citizens should find government websites that announce area cooling shelters, find the ones closest to their home, figure out how to get there, and set aside necessary supplies to stay there through the day (such as packed lunches or medicines). People with disabilities, however, may not receive this information sufficiently - they may be

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more socially isolated, and/or have lower rates of Internet usage - which both impacts identifying local cooling shelters and knowing which are designated shelters on specific days (or even if an extreme heat event is on its way). Going to those shelters is also difficult, given frequent reliance on public transit and the need to transport medical equipment (especially more bulky equipment, or in situations where a person spends extended hours in bed); this is doubly so when people must travel back home at night before returning to the shelter the next day. Once at the shelters, people with disabilities may need personal care from attendants or family members, which adds extra complications.

Given this, I recommend a few actions. First, people with disabilities and their support network should actively seek out ways to keep up with emergency heat advisories and cooling center info during the summer. Second, they should identify cooling centers that can accommodate their disability, or proactively reach out to cooling center managers to ensure needed accommodations ahead of time. Third, they should coordinate transportation to/from cooling centers - either with their own vehicle, with the car of a member of their support networks, or by paratransit or public transit - including how to transfer any necessary medical equipment. And finally, they should coordinate with their support network to get all necessary care while they are out of their home.

As an extra note, people with medical needs that can’t be accommodated at conventional cooling shelters may have to reach out to local medical facilities, such as hospitals or nursing homes, to create contingency plans if they can’t stay at home. This should be done ahead of time as much as possible. It also might be easier to simply find a friend or family member with an air-conditioned home and make that a hangout spot during extreme heat events; regardless, other considerations such as transportation and medical needs should still be addressed.

**Pursue household renovations, such as improving ventilation, upgrading insulation, or installing air-conditioning systems.**

There are several main barriers here for people with disabilities: due to financial constraints, many may not have the funds to invest in homes; a disproportionately low rate of home ownership means that many people with disabilities must rely on landlords to invest in housing improvements; and many people with disabilities may not have the physical ability to pursue do-it-yourself upgrades. Potential solutions here include education measures about the benefits of household improvements to homeowners and landlords alike; distributing information about the most cost-effective methods for cooling homes (including, for example, local contractors’ phone numbers and the most economical ways to run air-conditioners); and financial assistance to those most in financial and physical need, including people with disabilities.

**Create contingency plans for power outages**

One of the byproducts of extreme heat is that the electric grid often goes down: excessive air conditioning load over-taxes the system, and hot electricity wires have a harder time transmitting power. This could leave people with disabilities that are reliant on electrical medical equipment (i.e. ventilators) in a precarious position. If people with these medical needs deem power outages to be a legitimate possibility, they should consider investing in a backup power generator or set up some other contingency plan. For
what it’s worth, Amazon has some gasoline/diesel power generators for under $200, as well as reasonably priced backup batteries.

**System-Wide Recommendations: General Logistics**

While individuals can take a number of actions to prepare for extreme heat events, local officials can likewise prepare emergency heat plans that address people with disabilities. Already, most heat plans include setting up designated cooling shelters, educating the public about best practices (hydration, limiting physical activity, finding cool areas including cooling shelters, etc.), and issuing emergency heat alerts through various media. These can be shaped toward people with disabilities in the following ways:

**Identify Vulnerable Populations & Tailor Needs Appropriately.**

Officials should proactively reach out to the disability community and identify which populations might need special accommodations during extreme heat events. They should then adjust plans accordingly. This could entail establishing cooling centers near main transit corridors (i.e. subway stops or bus depots); communicating with paratransit so drivers know where cooling centers are; working with the disability community and healthcare providers to establish cooling centers with medical support and capability to accommodate individuals’ medical equipment; educating cooling center staff on how to work with people with disabilities as they come in; communicating with local healthcare agencies to have backup medical support staff; and even considering establishing existing medical facilities (hospitals, nursing homes, etc.) as cooling centers and providing temporary support to accommodate an influx of residents.

**Provide logistical and financial assistance for individual actions.**

This will be especially important for household renovations, such as insulation or air-conditioning. Officials can provide direct financial support for individuals to do such renovations or work with utilities to help do so (better insulation also serves the dual purpose of preventing grid overload and blackouts on hot days), especially for low income people and those that are especially heat sensitive. They can also expand financial assistance for heat sensitive individuals to run air-conditioning on extreme heat days: for example California’s Pacific Gas & Electric has their Medical Baseline Allowance\(^\text{10}\) program, which provides rate discounts for people with medically-based heating or cooling needs, among other disability-related electricity needs (i.e. using life-support systems). Regarding the backup power mentioned above, local governments should consider providing backup generators to people with necessary life support equipment; this could be through an outright assistance program, through distribution at the beginning of the summer, or when an extreme heat event is imminent. The latter two could be more preferable to local agencies, as they would own the generators and have them available during cooler months.

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Public communication and outreach are cornerstones of managing extreme heat events. Local agencies distribute “best practices” information, create lists of cooling shelters and other emergency locations, and issue extreme heat advisories to warn citizens of incoming dangers.

Create a list of vulnerable individuals and gather contact info.

Officials usually issue extreme heat information (including heat management recommendations and extreme heat warnings) through conventional channels, such as TV, radio, and social media. Some people with disabilities might not receive, or be active consumers of, these types of media. So officials should figure out who they need to reach out to and gather appropriate contact info, for alternative communication.

Identify especially vulnerable groups. This includes specific disabilities that are more susceptible to heat-related illness (i.e. spinal cord injury), people with disabilities that have insufficient resources (financial or logistical) to handle extreme heat events, and those with other exacerbating circumstances (i.e. renters, urban residents, etc.). People with reduced media consumption or outside communication should be especially addressed, and this factor can overlap many others.

Work with relevant agencies to develop contact lists for these groups, ideally with info that can be used in short notice. Relevant agencies include local centers for independent living that already have contact lists, social service agencies (i.e. Medicaid), senior or community centers, doctors’ offices, and live-in facilities. Officials should gather emergency contact info in a full list that can be used by designated disaster warning agencies/officials, or in conjunction with local agencies. Another option for this is to allow citizens with disabilities to sign up for voluntary short-notice emergency warning systems, such as automated warning calls or emails; info on how to sign up would be made available at agencies or other disability-related centers, and sent out in assorted mailings.

Contact lists can (really, should) also include the support networks of people with disabilities. This includes family, friends, personal attendants, and more. Emergency messages can then be tailored to remind members of the support network that there needs to be an emphasis on the person with a disability.

Develop educational outreach, and active & passive warning systems.

Extreme heat is much easier to manage when people know their needs and have a plan developed. So officials should send out preparation info and develop sign-up lists at the beginning of the warm season, using the lists mentioned in the previous bullet point (i.e. sending out pamphlets through local Medicaid offices). Official should identify highest-priority info to be included in these mailings and when extreme heat events are imminent - such as accessible cooling shelter locations, paratransit info, and methods for people with disabilities to stay cool at home. Extreme heat warnings themselves can be either active or passive. Passive info would include flyers posted at local health or community centers, ensuring that medical or agency staff notify people that they interact with of an imminent heat event (so, for example,
staff at the county personal attendant agency’s payroll department would, at the end of their conversations, tell people that there is a heat wave coming - even though the call itself was otherwise about pay stubs). Active outreach could include blasts text messages, automated phone calls, emails, or mailings; and they should go to people with disabilities and their support network alike.

Moving Forward

I’ve listed a lot of recommendations, but they are certainly not comprehensive. Most of these are broad bullet points that should be broken down by professionals and appropriate agencies, and it’s always better to cover multiple bases than not enough. So cooling shelters could have room set aside for folks with plug-in medical equipment, rather than just having “outlets on the edges of larger rooms. Officials should consider each of these in detail and develop the best plans given the local disabled population.

Extreme heat and heat waves are silent killers, and they’ll become stronger and more frequent as the world continues to warm. Many groups are especially vulnerable, but people with disabilities are right at the top. That’s why it’s important to be forward-thinking about extreme heat preparation. Prep can happen at many levels, from individual to national, from finding a shaded park to giving federal grants for medically-equipped shelters. The key is to begin developing comprehensive plans that address everyone’s needs, including those of people with disabilities, and implement them as soon as possible.

Related links
