

## **Supplemental Material**

### **Survey of County-Level Heat Preparedness and Response to the 2011 Summer Heat in 30 U.S. States**

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**Table S1.** National and state surveys of adaptation to climate change.

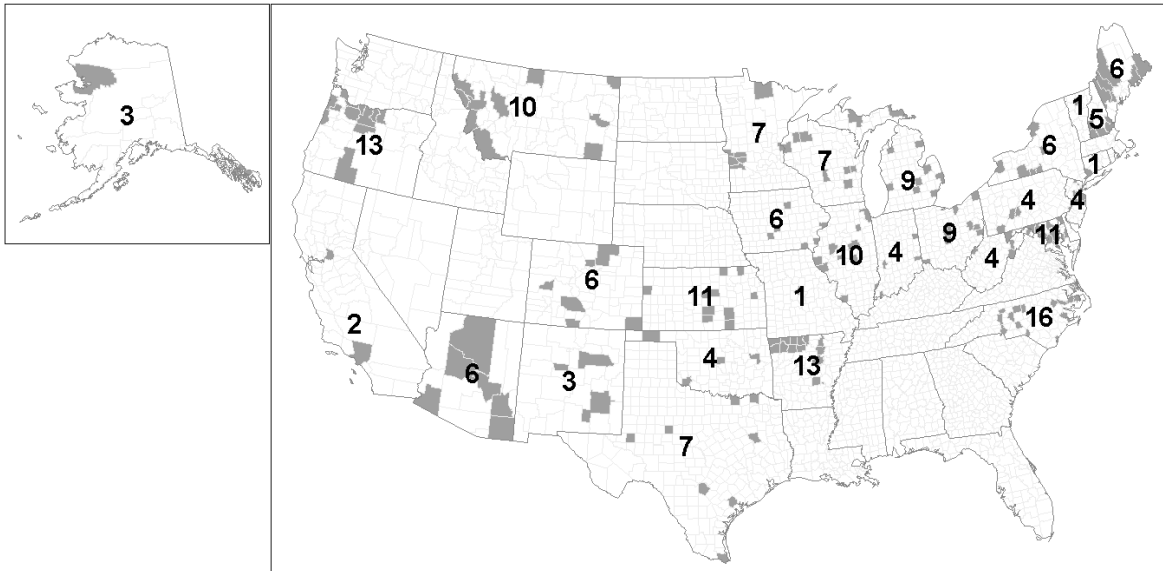
<b>Study Affiliations</b>	<b>Survey Recipients/Region</b>	<b>Method</b>	<b># of respondents</b>	<b>Time frame</b>	<b>Response Rate (%)</b>
Public Policy Institute California (Bedsworth, 2009)	61 Local public health officers throughout the state of California	web based	34	August to October, 2007	56.0%
ICLEI - Local Governments for Sustainability, University of Michigan, Harvard University (O'Neill et. al, 2010)	284 US cities and ICLEI local government contacts in the environmental, public works, departments	Phase 1, Phase 2, online & paper	70	July 2007 to January 2008	25.0%
Environmental Defense Fund - George Mason University - National Association of City and County Health Officials (NACCHO) - (Balbus et. al, 2008)	217 local health departments were randomly selected out of 2,296 NACCHO members across the US	telephone based	133	November 2007 to February 2008	61.3%
The Oregon Coalition of Local Health Officers (CLHO) and University of Oregon's Climate Leadership Initiative (CLI) - (Vynne & Doppelt, 2009)	84 local health departments throughout the state of Oregon	web based	35	December 2008	42.0%
Columbia University (Carr et. al, 2012)	New York State city and county LHD officials, 1 respondent per LHD	web based	22	November to December 2009	39.0%

**Table S2.** Expanded version of Table 1. Summaries of county-level preparedness and response to the extreme heat of 2011 in states experiencing record-breaking heat in 2011. Each row gives both the percent of counties responding “Yes” of all counties with non-missing responses for the factor as well as the absolute number of counties responding “Yes” and responding with any non-missing answer. (Note: this table extends over several pages.)

	<b>Percent of responding counties that responded “Yes”</b>	<b>Number of counties responding “Yes” / Number of counties responding</b>
<b><u>Preparedness for heat in 2011</u></b>		
<b>(1) Existing heat plan in 2011</b>	<b>40%</b>	<b>76 / 188</b>
<i>How long plan has existed</i>		
< 1 year	12%	9 / 72
1-3 years	33%	24 / 72
4-6 years	36%	26 / 72
7-9 years	6%	4 / 72
≥10 years	12%	9 / 72
<i>When plan was last updated</i>		
Within the last 6 months	21%	15 / 71
Within the last year	52%	37 / 71
Over a year ago	27%	19 / 71
<b>(2) Existing heat wave definition in 2011</b>	<b>30%</b>	<b>56 / 185</b>
<i>Basis for definition</i>		
National Weather Service or NOAA definition	28%	15 / 54
State-wide definition	7%	4 / 54
City-specific heat health watch system	4%	2 / 54
<b><u>Response to heat in 2011</u></b>		
<b>(1) Communicated about heat risks</b>	<b>73%</b>	<b>132 / 180</b>
<i>Method of communication</i>		
Public service announcement	53%	95 / 180
Websites	48%	87 / 180
Social media (e.g., Twitter, Facebook)	30%	54 / 180
Flyer / poster	18%	32 / 180
Emails	17%	30 / 180
Joint event with another group	8%	15 / 180
Telephone hotline	6%	11 / 180

	<b>Percent of responding counties that responded “Yes”</b>	<b>Number of counties responding “Yes” / Number of counties responding</b>
Door-to-door campaign	4%	8 / 180
Telephone call	1%	2 / 180
Other	23%	41 / 180
<i>When communication about heat began</i>		
Before the summer season or extreme heat started	28%	36 / 127
During the summer after the extreme heat started	72%	91 / 127
<b>(2) Provided outreach / education on heat to public</b>	<b>64%</b>	<b>113 / 177</b>
<i>People to whom county provided outreach / education</i>		
People working with the elderly	37%	65 / 177
People with certain medical conditions	37%	65 / 177
People with low incomes	29%	51 / 177
Health care providers	25%	45 / 177
People who are mobility challenged	15%	27 / 177
People working with the homeless	12%	22 / 177
People living in high-rise apartment buildings	10%	18 / 177
People with nervous system disorders	9%	16 / 177
Other	30%	52 / 177
<b>(3) Collaborated with other organizations</b>	<b>46%</b>	<b>66 / 145</b>
<i>Collaborations</i>		
With medical professionals	36%	52 / 146
With social / civic organizations	28%	43 / 151
With fire department	25%	39 / 153
With police department	23%	35 / 154
<b>(4) Opened cooling centers</b>	<b>40%</b>	<b>61 / 152</b>
<i>Number of cooling centers opened</i>		
1-5 centers	83%	49 / 59
6-10 centers	5%	3 / 59
>10 centers	12%	7 / 59
<i>Number of days cooling centers were open</i>		
1-5 days	58%	32 / 55
6-10 days	18%	10 / 55
>10 days	18%	10 / 55
All summer	5%	3 / 55

	<b>Percent of responding counties that responded “Yes”</b>	<b>Number of counties responding “Yes” / Number of counties responding</b>
<b>(5) Activated heat plan</b>	<b>24%</b>	<b>46 / 188</b>
<i>Number of days heat plan was activated</i>		
1-5 days	47%	21 / 45
6-10 days	24%	11 / 45
11-20 days	13%	6 / 45
>20 days but not the entire summer	13%	6 / 45
Entire summer	2%	1 / 45
<i>Prompt for activating heat plan</i>		
Internal decision	46%	21 / 46
Pre-defined trigger in heat wave early warning system	41%	19 / 46
Suggestion of emergency preparedness team	30%	14 / 46
Directive or suggestion from state health department	28%	13 / 46
Noticeable spike in heat-related sickness and deaths	22%	10 / 46
Other	15%	7 / 46
<b>(6) Assisted with relocation during electrical outages</b>	<b>4%</b>	<b>7 / 177</b>
<b>(7) Provided financial assistance</b>	<b>3%</b>	<b>7 / 177</b>
<i>Type of financial assistance</i>		
Help paying utility bills	3%	5 / 177
Help buying food or bottled water	1%	1 / 177
Help purchasing a fan or air conditioner	1%	1 / 177
Other	0%	0 / 177
<b>(8) Provided transportation</b>	<b>2%</b>	<b>4 / 179</b>
<i>People to whom county provided transportation</i>		
People who called and requested transportation	2%	3 / 179
Residents of an apartment / specific neighborhood	1%	1 / 179
Elderly	0%	0 / 179
Homeless	0%	0 / 179
Children	0%	0 / 179
Other	0%	0 / 179
<b>(9) Hired new staff in response to heat</b>	<b>1%</b>	<b>1 / 167</b>



**Figure S1.** Map of states surveyed and the number of counties that responded to survey are shown in each of the survey states.

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