Question for the Viewers

Do you know the role your local health jurisdiction has when responding to heat events?

A. Yes, definitely
B. Yes, but I don’t have a complete picture
C. Not at all
D. Other (please type in chat)
Warming Up: Preparing for Climate Hazards

Preparation: Multnomah County Climate Action Plans

Preparation: Gathering High-Resolution Data
Preparation: Completing the Checklist…?

- Climate Action Plans
- High resolution data

Plus...
- Early warning communications
- Standard Operating Procedure
- Surveillance

Cooling Down: Responding to the Heat Dome

Timeline: June 2021

Outreach begins
Forecast revised
Cooling centers open
New record
New record
New record
Cooling centers close

June 2021
Response

- Warning messages translated in 7 languages
- Parks permits for sporting events cancelled
- Transit fare enforcement paused

Cooling Spaces

- Three 24-hour cooling shelters
  - Behavioral health
  - Meals
  - Transportation
  - COVID vaccination
  - Pet accommodation
  - Staff of 350 employees and volunteers

- Nine library daytime cooling spaces

Direct Outreach

- 4,500 high-risk older adults and people with disabilities
- 12,000 client text messages
- Affordable housing providers
- 100 street teams
- Affordable housing providers
Working On The Response

- Syndromic surveillance escalating the response
- Death investigations
- Vital records for a mass casualty event

Question for the Viewers

Has your agency changed its response strategy as a result of the heat events or climate change?

A. Yes
B. No
C. Not sure
D. Other (please type in chat)
Impacts

- Heat deaths: 69, Zero in a typical year
- Emergency department visits for heat illness: 158, 3-5 visits expected in the same time period

Heat-related Deaths

- Heat deaths in Multnomah County, 2021:

Distribution of Heat-related Deaths

- Confirmed heat-related deaths in Multnomah County June 27 - August 18, 2021 (N=72)
Heat-related Deaths by Cooling Type

<table>
<thead>
<tr>
<th>Cooling Type</th>
<th>Count</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan Only</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>None</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Air Conditioning (yes or no)</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Unknown</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>72*</td>
<td>100</td>
</tr>
</tbody>
</table>

*Includes 3 additional heat deaths from August 2021

Emergency Department and Urgent Care Visits

Weekly emergency department and urgent care clinic visits for heat illnesses in Multnomah County, May-September 2021.

Countywide Emergency Department Visits

ESSENCE heat-related visits for Multnomah County May 1 – September 30, 2021 [257 visits]
Heat-related Deaths by Temperature

Confirmed heat-related deaths in Multnomah County
June 27 – August 18, 2021 (N=72)

Disproportionately Affected Demographic Populations

<table>
<thead>
<tr>
<th>Category</th>
<th>Males</th>
<th>Non-Hispanic Whites</th>
<th>Adults Aged 60+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>67% of deaths</td>
<td>82% of deaths</td>
<td>78% of deaths</td>
</tr>
<tr>
<td></td>
<td>60% of emergency department visits</td>
<td>71% of emergency department visits</td>
<td>42% of emergency department visits</td>
</tr>
</tbody>
</table>

Disproportionately Affected Populations by Living Situation

<table>
<thead>
<tr>
<th>Category</th>
<th>People Living Alone</th>
<th>People Living In Multifamily Buildings</th>
<th>People Experiencing Homelessness</th>
<th>People Living In Warmer Areas of the County</th>
</tr>
</thead>
<tbody>
<tr>
<td>People Living Alone</td>
<td>71% of deaths</td>
<td>58% of deaths</td>
<td>6% of deaths</td>
<td>58% of deaths</td>
</tr>
<tr>
<td>People Living In Multifamily Buildings</td>
<td></td>
<td></td>
<td>6% of deaths</td>
<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>People Living In Warmer Areas of the County</td>
<td>58% of deaths</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned

- Work with your local National Weather Service office to understand probability of extreme events
- Cooling shelters are only effective if people use them
- Know what to expect when reporting impacts of a mass casualty event
- Gather the data you need to implement interventions
- As climate change progresses, we’re operating at the edge of scientific knowledge

Changes

- Communications
- Cooling interventions
  - AC distribution
  - Cooling centers
  - Misting stations
- Staffing
  - Response
  - Resilience
- Laws and regulations

Key Takeaways

- Plan for the worst-case scenario and stress test your plan
- Make a staffing plan
- Care for the most vulnerable: older, living alone,
- AC is protective
A Chat with Brendon Haggerty

Allene Mares  Brendon Haggerty

QUESTIONS?

To ask a question, please click the icon in the Zoom toolbar to open your Q&A Pod.

Connect with Multnomah County

Brendon Haggerty
Multnomah County Health Department
E-mail: brendon.haggerty@multco.us
Resources

Regional Climate and Health Monitoring Report
Multnomah County, Clackamas County, and Washington County public health agencies
https://www.multco.us/file/111710/download

National Weather Service HeatRisk Tool
National Oceanic and Atmospheric Administration
https://www.wrh.noaa.gov/wrh/heatrisk/

National Integrated Heat Health Information System
National Oceanic and Atmospheric Administration
https://nihhis.cpo.noaa.gov/

Global Heat Health Information Network
https://ghhin.org/

Multnomah County Report on 2021 Heat Deaths
Multnomah County Health Department