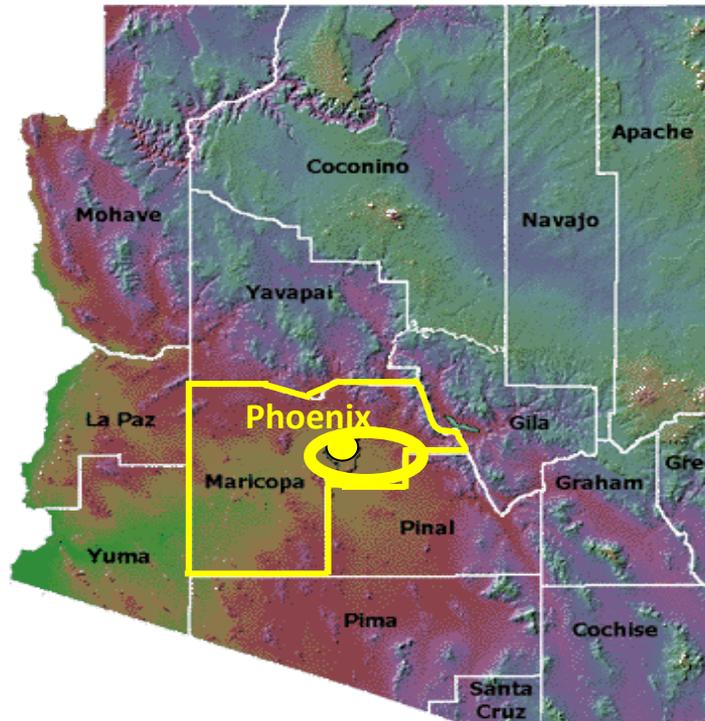


# Maricopa County, Arizona



Perhaps the largest urban center to experience the nation's most extreme heat



## Typical year:

Environmental temperatures  $\geq 100^{\circ}\text{F}$

Start: mid-May  
End: 1<sup>st</sup> week October

Days where max. temp  $\geq 110^{\circ}\text{F}$  ( $119^{\circ}\text{F}$ )

26 days (average)

Days where min. temp  $\geq 90^{\circ}\text{F}$  ( $95^{\circ}\text{F}$ )

13 days (average)

# Motivation for Action, 2005



## Exceptionally high temperatures in July 2005

### Media Reports:

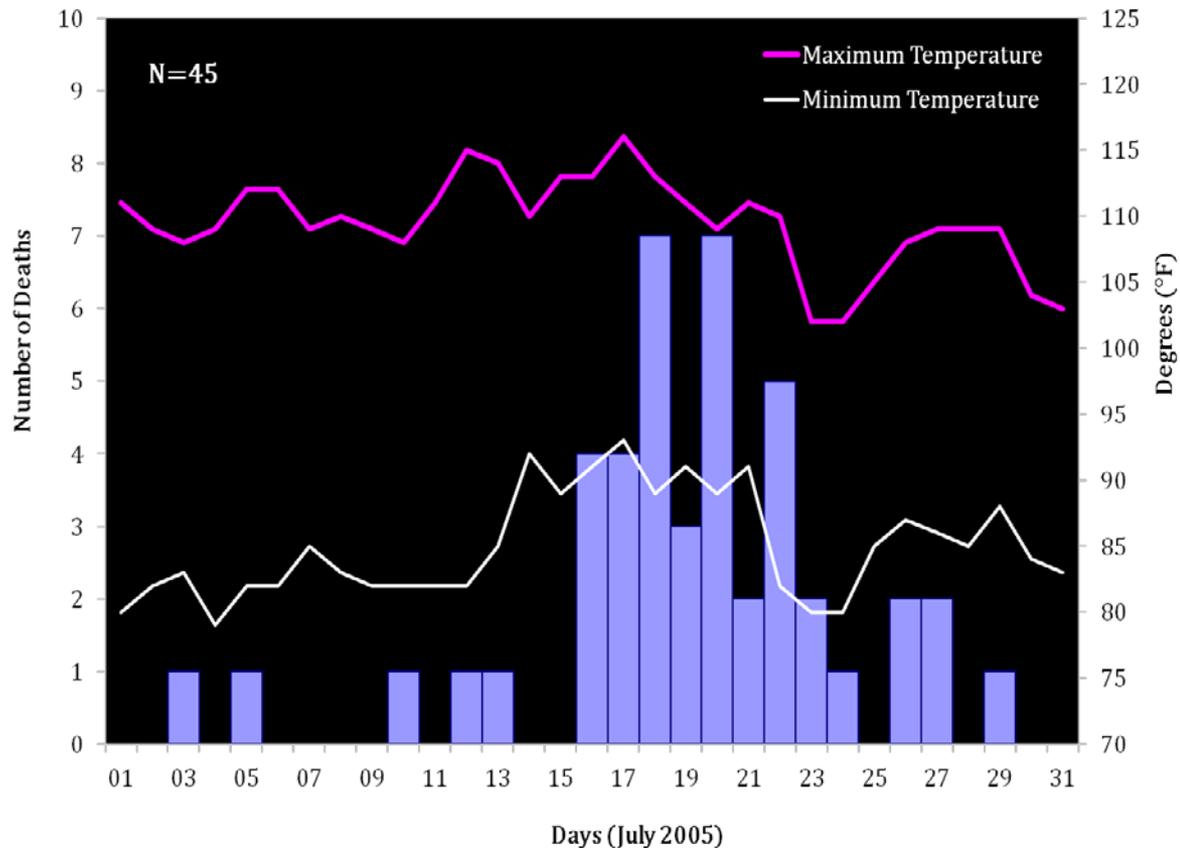
“Many heat deaths may go uncounted”

“Heat deaths catch officials off-guard”

“Heat wave claims 18 lives in 5 days”

**No surveillance system for heat-associated deaths in place at that time**

Heat-Associated Deaths and Maximum/Minimum Temperatures, July 2005



# Drinking from sprinklers, Phoenix homeless scabble to survive heat wave

Heat kills 18 in Phoenix; most victims are homeless



Phoenix officials ask for donations of water, ice after heat wave kills 12

Christine Keith/Arizona Republic/AP Photo

# Heat Relief Network (HRN)



- Maricopa Association of Governments (MAG), municipalities, non-profit and faith-based organizations
- Goal: to prevent heat related *deaths*
  - More than 40 Cooling Centers
  - 32 water collection sites
  - 8 hydration stations/water distribution sites
  - Well checks by faith communities and others



Cooling Centers/Heat  
Refuge Stations



Water Collection Sites



Water Distribution Sites

# Public Education



**Take a HIKE. Do it RIGHT.**

More than **200** hikers annually are rescued from City of Phoenix desert and mountain parks and preserves. This simple checklist can help keep you from becoming a statistic.

- Watch the Weather:** Yes, "it's a dry heat" – but Arizona's temperature can be deceiving and deadly. Hike when it's cool outside, try early mornings and evenings when there's more shade.
- Dress Appropriately:** Wear proper shoes, clothing, hat and sunscreen.
- Bring Water:** Hydrate before you go. Have plenty of water, more than you think you need. Turn around and head back to the trailhead before you drink half of your water.
- Keep in Contact:** Carry a mobile phone.
- Team Up:** Hike with others. If hiking solo, tell someone your start and end times, and location.
- Be Honest:** Do you have a medical condition? Asthma, heart problems, diabetes, knee or back problems? Don't push yourself! (Even trained athletes have been caught off guard by getting dehydrated on Arizona trails.)
- Don't Trailblaze:** Enjoy the Sonoran Desert's beautiful and undeveloped landscape, but please stay on designated trails.
- Take Responsibility:** Don't be "that person" – the one who wasn't prepared, shouldn't have been there for health reasons or ignored safety guidelines. Be the responsible hiker, who takes a hike and does it right!

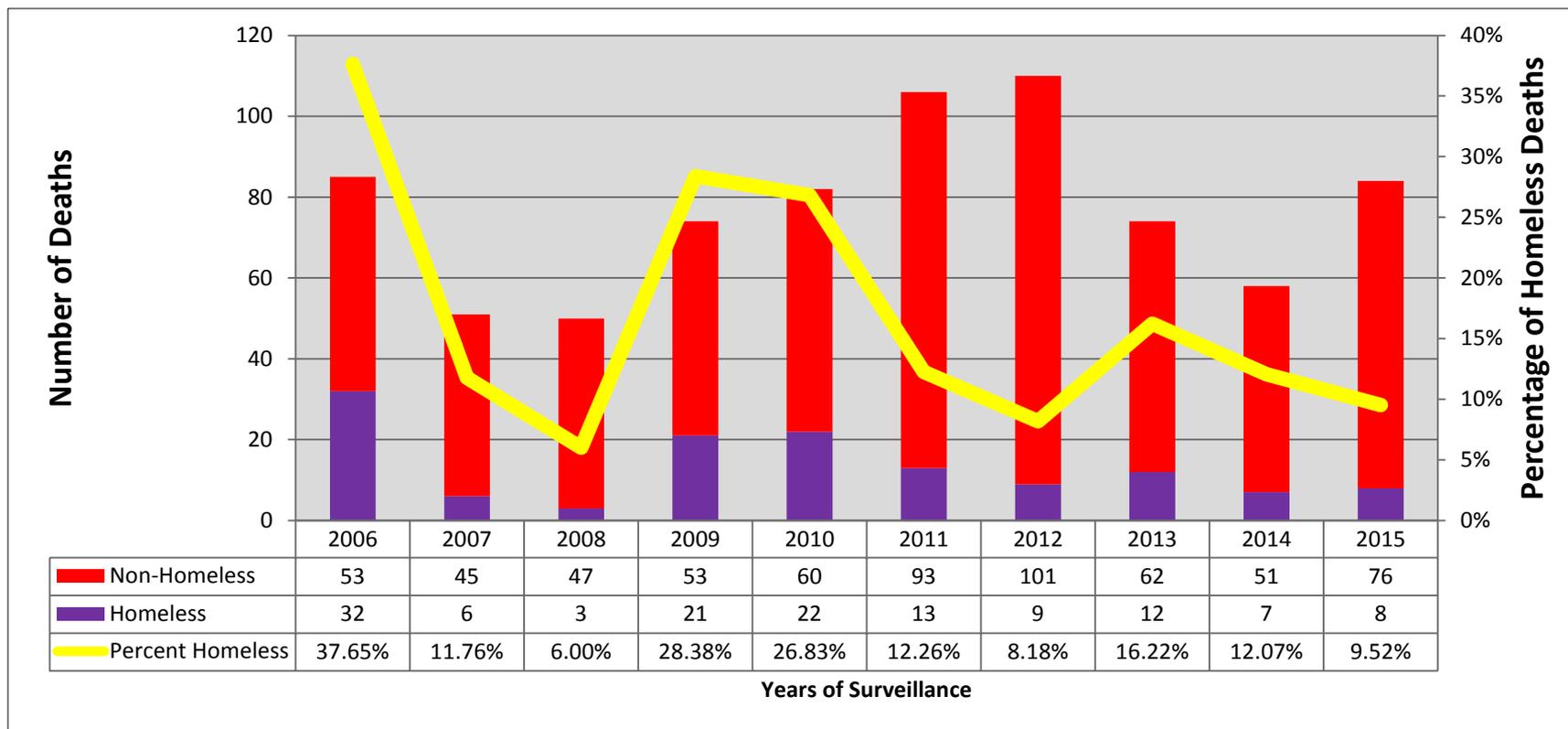
A public service message from the City of Phoenix Parks & Recreation Department and Fire Department



[www.phoenix.gov](http://www.phoenix.gov)



# Vulnerable Populations



- The proportion of heat-related deaths in those who are homeless has decreased, although the absolute number of deaths remains roughly the same.

# Heat-Associated Death Risk Factors



- 62% of deaths occur outdoors
  - Most of these are in urban areas (45%)
  - Smaller proportion in desert areas (23%)
  - 11% of these outdoor deaths are in cars
- Of those that died indoors
  - 18% had no air conditioning (AC) at all
  - 24% of people did not have their AC turned on
  - 45% of people did not have working AC
    - Vast majority had a non-functioning AC (80%)
    - The rest had no electricity service at that time

# Evaluations & Improvements



- Cooling Center Evaluation, 2014
  - Need to increase visibility and hours
- Community Assessment for Public Health Emergency Response (CASPER), 2015
  - Cost of electricity a significant barrier for 25%
  - Yet less than half aware of utility assistance
- Homebound Population Assessment, 2016-17

