



The Heat Beat:

U.S. Media Is Connecting Extreme Heat to Public Health, Still Failing on Climate Connection

Acknowledgments

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Introduction

[It's going to get hot; actually, dangerously hot.](#)

—Barry Rossio, a meteorologist with AccuWeather Inc.

The climate crisis is making deadly heat waves more common and longer lasting. Beginning the week of July 15, a sprawling heat wave impacted [two-thirds of the United States](#). A brutal mix of high temperatures and humidity put the [heat index at 115 degrees](#) in some places. This extreme heat threw a number of locations into a state of emergency, strained power grids, prompted the cancellation of events including the [New York City Triathlon](#), put thousands at risk and caused multiple deaths.

No single heat event alone is an indicator of global warming, but this nearly week-long period of extreme heat is exactly what we can expect in an increasingly warming world.

The July heat wave comes on the heels of the [hottest June in recorded history](#) and the release of a study which warns that the climate crisis will mean not just longer, stronger and more frequent heat waves but also [back-to-back cycles of extreme temperatures](#), giving communities - and vulnerable populations - little respite from heat.

This report examines media coverage of extreme heat and climate from July 14 to July 23, capturing reporting leading up to the heat wave, through the record hot days and the day after temperatures began to break. The report considers the top 50 U.S. newspapers by circulation, and national programming from ABC, CBS, CNN, Fox News Network, MSNBC and NBC.

Of the pieces that mentioned climate in the context of heat, we further assessed how well they discussed the connection and whether they discussed the public health implications associated with more frequent and severe heat events. Though far too few in number, the reporters connecting climate change to heat events are doing so in ways that reflect the current science and make the crisis salient to their audiences.

Primary Analysis: A Mixed Review

But at the same time too we take this as an opportunity just to talk about climate change.

—Ana Cabera, [CNN Newsroom, July 20](#)

This is the era of climate chaos. Yet with a few notable exceptions, major U.S. media outlets frequently fail to connect monumental, climate-relevant weather events to the climate crisis. This failure is a missed opportunity to give context to severe weather and alert the public to the huge risks of climate inaction.

But there is reason for measured hope.

On the whole, national television news outlets - where most Americans still get their news - showed significant improvement in the coverage of the July 2019 heat wave compared to that for the heat wave that enveloped the United States in late June to early July 2018. Our analysis of the 2018 heat event found only one national television news segment that mentioned climate change or global warming in relation to the heat, compared to 15 mentions during the 2019 heat wave.¹

Strong reporting accurately notes the relationship between climate change and heat and is clear about the risks. To this end, outlets are referencing climate science when making the connection to heat, and the overwhelming majority of articles are connecting rising temperatures to public health and risk to vulnerable populations. For too long, public understanding of our changing climate has been mired by intentional misinformation, and its reckoning has been cast far into the future. Coverage of the July 2019 heat wave shows a positive trend toward raising up science and articulating the risk of inaction.

Methodology

For this analysis, we used Lexis to search for terms related to extreme heat and then searched again for those terms and “climate” or “global warming.” We searched the top 50 U.S. newspapers by circulation and six national television news networks.

The list of the top 50 U.S. papers by circulation was compiled using data from Cision in May 2018 and is limited to English-language, subscription newspapers.² Many significant local dailies are not included, such as *The Palm Beach Post* and *The Charlotte Observer*. The same is true of papers that cover Capitol Hill, like *The Hill*, *Politico* and *Roll Call*. This analysis also does not include radio, local television or online news articles.

We excluded five types of pieces: (1) letters to the editor; (2) pieces approximately 200 words or fewer that were forecasts or heat advisories in which one might not expect mentions of climate change; (3) other very short “round-ups” or “briefs” that one might not expect to mention the connection between heat and climate; (4) false positives in broadcast transcripts that occur when one segment discusses heat and another unrelated segment discusses climate; and (5) brief mentions of the heat wave in stories otherwise unrelated to it.

¹ A year-to-year comparison for newspapers was not done because of a change in methodology.

² The newspapers are *The Arizona Republic*, the *Arkansas Democrat-Gazette*, the *Atlanta Journal-Constitution*, *The Baltimore Sun*, *The Boston Globe*, *The Buffalo News*, the *Chicago Sun-Times*, the *Chicago Tribune*, *The Cincinnati Enquirer*, *The Plain Dealer (Cleveland)*, *The Columbus Dispatch*, the *Dallas Morning News*, *The Denver Post*, the *Detroit Free Press*, the *East Bay Times*, the *Honolulu Star-Advertiser*, the *Houston Chronicle*, the *Indianapolis Star*, the *Kansas City Star*, the *Las Vegas Review-Journal*, the *Los Angeles Times*, *The Mercury News*, the *Miami Herald*, the *Milwaukee Journal Sentinel*, the *Daily News (New York)*, the *New York Post*, *The New York Times*, *Newsday*, *The Oklahoman*, the *Omaha World-Herald*, *The Orange County Register*, *The Oregonian*, the *Orlando Sentinel*, the *Philadelphia Inquirer*, the *Pittsburgh Post-Gazette*, *The Sacramento Bee*, *The San Diego Union-Tribune*, the *San Francisco Chronicle*, *The Seattle Times*, the *St. Louis Post-Dispatch*, the *St. Paul Pioneer Press*, the *Star Tribune*, *The Star-Ledger*, the *Sun Sentinel*, the *Tampa Bay Times*, *The Times Picayune*, *USA Today*, *The Virginian-Pilot*, *The Wall Street Journal* and *The Washington Post*.

Key Findings

- In the top 50 newspapers, a total of 162 articles mentioned extreme heat, heat waves, record heat or record temperatures from July 14, 2019, to July 23, 2019. Thirty-eight of these pieces (23%) also mentioned climate or global warming.
- Seventeen or nearly half of the 38 pieces that connected climate and extreme heat were about heat in general or referenced a different heat wave than the one experienced by two-thirds of the population in July.
- Thirteen papers published at least one article on the heat wave with no mention of climate. While nine³ of the top 50 papers did not publish an article on the July heat wave.
- The television news networks ABC, CBS, CNN, Fox News Network, MSNBC and NBC mentioned climate in 15 of 94 heat-related pieces (16%) during the period reviewed. Although the percentage is still strikingly low, it represents a significant improvement over coverage of the 2018 heat wave, in which climate was mentioned in just one segment out of 114 (0.9%). Notably, three of the 15 television mentions referred to a deadly heat wave in India rather than the U.S. heat event.
- Of the articles that mentioned climate or global warming, 28 or 74% of the top 50 outlets quoted climate experts or cited climate science on the connection between extreme heat and warming. The same was true of 10 or 67% of broadcast segments. Only one segment, appearing on CBS, included an interview with a scientist.
- Half of the newspapers' citations to climate science referred to a report by the Union of Concerned Scientist (UCS) released on July 16, "[Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days](#)". The 14 mentions of this report account for 37% of total newspaper pieces connecting extreme heat and climate. Four of the 10 (40%) broadcast citations to climate science referenced the UCS study.
- Thirty-two of the 38 articles connecting climate with heat also identified the health risks of exposure to extreme heat particularly to vulnerable populations. One hundred and twenty-three or 76% of total articles identified risks and vulnerable populations.
- Forty-seven (29%) of the total articles on heat explicitly discussed the risk of increasingly hot temperatures on workers or featured a story on workers impacted by heat on the job. Seventeen (10.5%) connected climate-driven heat to workers.
- Of the 47 articles on heat explicitly discussing heat risks to workers or featuring a story of workers impacted by heat on the job, only seven or 13% discussed the lack of federally mandated safeguards to protect workers from health or efforts to secure those protections.
- Only one article provided false balance by citing a climate skeptic. An article on the UCS report in *The Atlanta Journal-Constitution* quoted the "[confusionist](#)" Judith Curry, who responds to the evidence of rising heat and more intense heat waves by pointing out that there were [bad heat waves in the 1930s](#).

³ A total of nine papers did not print articles on the heat wave: The Denver Post*, the Las Vegas Review Journal, Orange County Register*, The Oregonian*, The Oklahoma, the San Francisco Chronicle*, The Seattle Times*, the Star Tribune, and The Times-Picayune. Five, noted with asterisks, are in states that were not under a heat advisory or warning during the period analyzed.

Overall, these findings suggest that the July 2019 extreme heat event that scorched much of the U.S. prompted far too little national conversation about the climate crisis. At the same time, to the extent that media discussed the connection to climate, they generally did it well, often relying on climate experts and conveying the climate science accurately. Most coverage is conveying the risks of heat to public health - although more can be done to discuss the intersection of climate, heat and public health, such as the role that continued climate inaction will play on workers and other vulnerable populations. Finally, the July heat event could have provided a vehicle for deniers to push out misinformation, but they were mostly shut out by the major media outlets.

Qualitative Analysis: Heat, Health and Climate Science

Citing Climate Scientists and Science

According to last year's National Climate Assessment, the number of hot days in the U.S. is increasing. Heat waves have also increased in frequency, rising from an average of two per year to six per year in the last five decades. The threat is especially pronounced in the Northeast, where "the frequency, intensity, and duration of heat waves is expected to increase" due to the climate crisis.

—[Mercury News, July 19](#)

The long-term trends of more frequent and intense weather, such as heat waves and less cooling in general, are strong signals that human greenhouse gas emissions are contributing to the climate crisis. Scientists overwhelmingly agree on this point. New and ongoing research offers an opportunity to further connect the dots. Media should consult climate experts when drawing conclusions about how weather events fit into broader, human-altered climate trends and look to scientists for how to communicate these connections accurately.

A review of media coverage of the July 2019 heat wave suggests that the media is starting to rely on climate science more often. Of the newspaper articles that mentioned climate or global warming, 28 or 74% of the top 50 outlets quoted climate experts or cited climate science to inform the connection between extreme heat and warming. Similarly, 10 or 67% of broadcast news programs making the connection cited climate studies or experts. Only one segment, appearing on CBS, included an interview with a scientist. On July 19, Gavin Schmidt of NASA's Goddard Institute of Space Studies appeared on the CBS Evening News. Schmidt stated, among other things, "In the last decade, we've seen record after record be broken when it comes to heat waves. And this is a symptom of the fact that the planet as a whole is getting warmer."

Covering New Climate Studies

Half of the newspaper citations were provided by a report, released on July 16, by the Union of Concerned Scientists (UCS) titled, "[Killer Heat in the United States: Climate Choices and the Future of](#)

[Dangerously Hot Days.](#)" The release of the report also accounts for 14 or 37% of total articles connecting extreme heat and climate. Four of the 10 (40%) citations on broadcast news referenced the UCS study.

New climate studies provide easy opportunities for the media to cover climate. The most effective reporting also connects the science to our experience and values. The timing of the UCS report provided a nexus between research and experience, giving the media a blueprint for how to talk to the public about the heat wave.

Connecting Climate Driven Extreme Heat to Public Health, Risk to Vulnerable Populations

While the warming climate will touch the lives of all who live here, the heat will take the largest toll on disadvantaged communities. The senior population, young children and people with health conditions are also at high risk during these conditions.

—[Chicago Tribune, July 19](#)

Exposure to extreme heat is a significant public health problem and is the leading cause of [weather-related mortality and illness in the U.S.](#) The climate crisis, unabated, will only exacerbate the problem. While heat impacts everyone, certain groups are more susceptible - children, the elderly, people with chronic illnesses, low-income populations, workers, athletes and many animals are at higher risk for heat-related illnesses and death.

A review of the July 2019 U.S. heat wave show that the media usually convey the health risks associated with extreme heat. One hundred and twenty-three or 76% of total heat articles identified public health risks or discussed vulnerable populations. Three of the stories were about [the death of a former NFL player.](#)

Those making the connection between climate and heat are also discussing health impacts. Thirty-two of the 38 articles connecting climate with heat identified the health risks of exposure to extreme heat, particularly to vulnerable populations.

Extreme Heat, Climate and Workers

"As temperatures continue to rise, the problem is going to get worse," said Shanna Devine, the organization's worker health and safety advocate. "In some places, we're going to lose the ability to work outside."

—[Sacramento Bee, July 16](#)

Workers in agriculture and construction are at highest risk of heat-related injury, but the problem affects all workers exposed to heat, including drivers, firefighters and indoor workers without climate-controlled environments. Excessive heat can cause heat stroke and even death if not treated properly, and yet these illnesses and fatalities are completely preventable.

Unfortunately, there are currently no federal safeguards to protect workers from heat-related illness and death – and no current federal plan to address the climate crisis at the scale necessary.

Lack of Federal Heat Protections for Workers

“Inside a Phoenix Family Dollar store, the thermostat displayed 92. It wasn't yet 11 a.m. And it was only going to get hotter for employees who have worked without air conditioning for the past three weeks.”

—[Arizona Republic, July 17](#)

Forty-seven (29%) of the total on heat explicitly discussed the risk of increasingly hot temperatures on workers or featured a story on workers affected by heat on the job. Seventeen (10.5%) connected climate-driven heat to workers. The impact of heat on the work force provides an enormous opportunity for the media to communicate to the public what is at stake from rising temperatures.

Of the 47 articles on heat explicitly discussing heat risks to workers or featuring a story of workers impacted by heat on the job, only seven or 13% discuss the lack of federal safeguards to protect workers, or efforts to secure those protections.

Conclusion

Extreme heat is perhaps the clearest and most obvious sign that the climate crisis is here. It's the weather event most readily attributable to global warming, and it is the climate-related threat that poses the greatest current risk to public health. This analysis finds that during the extreme heat event that scorched much of the United States in July 2019, the public likely heard little more than a whisper about climate from the media at a time when the discussion should have been loud and clear.

National television news networks did significantly better at connecting the July 2019 extreme heat event to climate than they did when covering a similar June-July 2018 event, but still fell far short, making the connection only 16% of the time. Newspapers did somewhat better than the television networks but also fell far short, at 23%. And when outlets mentioned climate, they conveyed the science accurately, cited climate experts, and almost never gave a platform to a denier or skeptic.

The public would be much more likely to wake from its slumber on climate crisis in time to demand the bold action we urgently need if the media would explain accurately the connections between human greenhouse gas pollution and extreme weather.

Tables

Table 1: Total articles on extreme heat and mentions of climate in those articles by paper, July 14, 2019, to July 23, 2019

Newspaper	Total Extreme Heat Articles	Climate Mentioned	Climate Not Mentioned
Arizona Republic	4	1	3
Arkansas Democrat-Gazette	3	1	2
Atlanta Journal-Constitution	1	1	0
Baltimore Sun	2	0	2
Boston Globe	7	2	5
Buffalo News (NY)	3	0	3
Chicago Sun-Times (IL)	7	1	6
Chicago Tribune	13	3	10
Cincinnati Enquirer	3	0	3
Cleveland Plain Dealer	4	0	4
Columbus Dispatch (OH)	3	0	3
Dallas Morning News	1	1	0
Denver Post (CO)	0	0	0
Detroit Free Press	1	0	1
East Bay Times	8	1	7
Honolulu Star-Advertiser	1	1	0
Houston Chronicle	2	1	1
Indianapolis Star	1	1	0
Kansas City Star	1	0	1
Las Vegas Review Journal	0	0	0
Los Angeles Times	2	0	2
Miami Herald	1	1	0
Milwaukee Journal Sentinel (WI)	4	1	2
New Orleans Times-Picayune	0	0	0
New York Daily News	8	1	7
New York Post	5	0	5
Newsday (NY)	8	0	8
Oklahoman	0	0	0
Omaha World-Herald	6	1	5
Orange County Register, The (CA)	0	0	0
Oregonian	0	0	0
Orlando Sentinel	2	1	1
Philadelphia Inquirer (PA)	6	1	5
Pittsburgh Post-Gazette (PA)	2	0	2
Sacramento Bee	2	2	0
San Diego Union Tribune	5	1	4
San Francisco Chronicle	0	0	0
San Jose Mercury News	7	3	4
The Seattle Times	0	0	0
St. Louis Post-Dispatch (MO)	1	0	1
St. Paul Pioneer Press	1	0	1

Star Tribune (Minneapolis)	0	0	0
Star-Ledger, The (Newark, NJ)	5	1	4
Sun-Sentinel, Fort Lauderdale, FL	3	1	2
Tampa Bay Times	1	1	0
The New York Times	8	3	5
The Wall Street Journal	4	1	3
USA Today	5	1	4
Virginian-Pilot, The (Norfolk, VA)	4	1	3
The Washington Post	7	2	5
Total	162	37	125

Table 2. Number of articles referencing climate science, impacts on vulnerable populations, impacts on workers and the lack of federal regulations, by newspaper, July 14, 2019, to July 23, 2019

Newspaper	Cited Climate Science	Impact on Vulnerable Populations	Impact on Workers	Lack of Federal Regulations
Arizona Republic	1	3	1	1
Arkansas Democrat-Gazette	0	3	2	0
Atlanta Journal-Constitution	1	1	1	1
Baltimore Sun	0	1	0	0
Boston Globe	1	6	2	0
Buffalo News (NY)	0	3	1	0
Chicago Sun-Times (IL)	1	5	1	0
Chicago Tribune	2	12	4	1
Cincinnati Enquirer	0	2	1	0
Cleveland Plain Dealer	0	1	0	0
Columbus Dispatch (OH)	0	1	1	0
Dallas Morning News	1	1	0	0
Denver Post (CO)	0	0	0	0
Detroit Free Press	0	1	0	0
East Bay Times	1	5	2	1
Honolulu Star-Advertiser	0	0	0	0
Houston Chronicle	1	2	0	0
Indianapolis Star	1	1	1	0
Kansas City Star	0	0	0	0
Las Vegas Review Journal	0	0	0	0
Los Angeles Times	0	2	1	0
Miami Herald	1	1	1	1
Milwaukee Journal Sentinel (WI)	0	3	2	0
New Orleans Times-Picayune	0	0	0	0
New York Daily News	0	6	1	0
New York Post	0	4	1	0
Newsday (NY)	0	8	2	0
Oklahoman	0	0	0	0

Omaha World-Herald	1	3	2	0
Orange County Register, The (CA)	0	0	0	0
Oregonian	0	0	0	0
Orlando Sentinel	1	2	2	0
Philadelphia Inquirer (PA)	1	3	1	0
Pittsburgh Post-Gazette (PA)	0	2	1	0
Sacramento Bee	1	1	1	1
San Diego Union Tribune	1	4	1	0
San Francisco Chronicle	0	0	0	0
San Jose Mercury News	3	4	3	1
The Seattle Times	0	0	0	0
St. Louis Post-Dispatch (MO)	0	1	1	0
St. Paul Pioneer Press	0	1	1	0
Star Tribune (Minneapolis)	0	0	0	0
Star-Ledger, The (Newark, NJ)	0	4	0	0
Sun-Sentinel, Fort Lauderdale, FL	1	2	1	0
Tampa Bay Times	1	1	1	0
The New York Times	3	7	2	1
The Wall Street Journal	1	2	0	0
USA Today	1	3	1	1
Virginian-Pilot, The (Norfolk, VA)	1	4	2	1
The Washington Post	1	7	2	0
Total	28	123	47	10

Table 3. Total mentions of extreme heat and climate by news network, July 14, 2019 to July 23, 2019, compared to total mentions of extreme heat and climate by outlet, June 27, 2018 to July 8, 2018

Network	Total Extreme Heat Mentions (2019)	Climate Mentioned (2019)	Total Extreme Heat Mentions (2018)	Climate Mentioned (2018)
ABC	0	0	6	0
CBS	19	7	40	1
CNN	46	8	35	0
FOX	7	0	32	0
MSNBC	0	0	0	0
NBC	22	0	1	0
Total	94	15	114	1