## V101 - One week in the heat.mp3

[00:00:05] **Amanda Luberto** This year is a record year for Phoenix and not in regards to sports championships. I am also still sad about the World Series, or about population, or any of the other records we could seemingly set. It's a record year for heat. The city has reached 110 degrees nearly 60 times this year, and over 105 times we've had temperatures over 100 degrees. Now, I understand that it seems like we break this record year after year as the city gets hotter and hotter. But actually the continuous day is over 100 degrees. Record was 76 days and it was set back in 1993. For most of us, we deal with the heat by trying to get away or jumping into the pool, or the old tried and true staying indoors. But not everybody in Phoenix has that luxury, and facing the extreme heat is a real concern. Earlier this summer, the U.S. Health and Human Services Secretary Xavier Becerra deemed extreme heat a rising public health crisis during his visit to the valley. And yet, Venetians every day live their lives here. So what does it take to survive a week in the heat? Welcome to Valley 101, a podcast by The Arizona Republic and azcentral.com about Metro Phoenix and beyond. I'm producer Amanda Luberto, and today I sat down with three of my colleagues to discuss a heat project that they reported on, along with a few others in our newsroom. Lane Sainty, Ray Stern and Daniel Gonzalez talked with doctors, the elderly, the unhoused, and more about the reality of living in the Phoenix heat.

[00:01:53] **Amanda Luberto** Why cover the heat now when Arizona has always been hot?

[00:02:03] **Lane Sainty** I think the original idea was to cover One Day in the heat. And then that grew into covering a week in the heat. The thinking was that there's a lot of national coverage of the Phoenix hate that misses some of the nuance of what it's like to live here throughout the entire summer, as opposed to sort of come for a week or a few days and talk to maybe front line workers and a few quiet specific groups that often crop up in these kinds of stories. So we're spending a whole week looking at the hate, sending reporters out. And a lot of reporters, not just 1 or 2, but, you know, a really large chunk of the newsroom. It was about capturing just more voices, different angles, the way that people very much survive here in the heat and sometimes don't survive, but also the way that a lot of people are able to adapt to the heat and go on living their life when the temperature is really extreme.

[00:03:00] **Amanda Luberto** So as you said, this is a big project with a lot of different angles. I was reading in your reporting that last year in Maricopa County, 645 people died from heat related injuries so far were in the hundreds, with 400 more to be investigated and more summer to be had. So you visited an emergency room and you talked with people at the burn center. Why specifically the burn center? And what did you learn there?

[00:03:30] **Lane Sainty** Yeah, I went to the burn center at the Valley Hospital in downtown Phoenix, and they were basically overrun with admissions. I went there on a Friday afternoon. They were super busy, you know, they had full beds. I spoke with a few surgeons who had just been doing and sort of crazy amount of surgeries throughout the whole week. And the reason they're so busy in summer is primarily because of an injury called contact burns. And contact burns, probably not exclusively, but somewhat unique to the southwest in summer. And they come from basically incredibly hot pavement or asphalt. The sun just beams down all day. These surfaces, these urban surfaces really take in this heat, and they grow so much hotter than the ambient air temperature. So when the ambient air temperature might be 100 degrees or 110, as it is pretty much every day in in Phoenix, in summer, the asphalt can get to 150, 160, and a third degree burn can happen in less than a minute at that temperature. So a lot of the people that that burn

center is saying, a lot of them are older people who have fallen, the frail, they can't get up. Some of them are people who have substance abuse issues. They might have taken fentanyl too much, you know, formerly unconscious on the pavement and not actually realize that they're sustaining a really serious burn or being conscious that you know enough to get themselves out of that situation. So, yeah, that that's what they're dealing with at the moment. And the surgeons I spoke to were saying that it's quite overwhelming the amount of people they're seeing at the moment.

[00:05:06] **Amanda Luberto** What would be even the treatment for that? Skin grafting? And can these people who are, you know, dealing with substance abuse issues or the elderly, can they afford that? What is sort of the solution?

[00:05:21] Lane Sainty The first thing they do is a surgery called excision, which is basically getting rid of the dead tissue. The aim is to try and get that away as guickly as you can, because the longer you leave it there, the longer the risk for the infection, the longer the band takes to heal. So that's the priority. And that's why it's such a problem that there's so many patients, because they're just trying to squeeze them in as fast as they can. A lot of the bands will then need skin grafts, so that's follow up surgeries, especially for elderly patients who, you know, find it much harder to bounce back from that kind of thing, or people with other co-morbidities. It can turn into a lot of surgeries trying to get those grafts to take. And then, you know, that makes when you're looking at people with substance abuse issues or maybe who are unhoused, which, I think they were saying maybe one third of the patients who sustained contact burns on housed, which makes sense. You know, they they really struggle to find respite from the heat. They're way more exposed to those surfaces than, you know, those of us with housing are. If you can actually treat someone to the point where they're better and then you discharge them back into an unsafe situation, that's not very helpful either. So I know the hospital and that's the burn center. And they are work pretty closely with the heat relief network, and they make sure they're giving people information to get them to cooling centers and whatnot, which is great. But at the same time, there is only so much that people in these siloed places can, can do. And so I think that is a larger problem that I think that's to working on.

[00:06:47] **Amanda Luberto** When you were there, I'm sure you were put into an environment where you're seeing a lot of things that you don't see every day. What is the main thing about writing about the emergency room that has stuck with you since you visited?

[00:06:59] **Lane Sainty** I think I'd say, maybe the resignation of the staff, almost. And I don't mean that in a negative way to say that they were disinterested or checked out or anything that were not they were completely engaged. But the way that they are so used to saying these hate injuries and, you know, contact burns and hate stroke as well, it's just it's the grind of summer. It's become really quite normalized. And at the same time, as they were saying, you know, these bands are preventable and, you know, you have to stay out of the heat and not be out there in the peak of the day. And, if you're going out, go with someone. So if you fall, they can help you get back up or that you can immediately call them emergency or or whatever. It just it was so common, these injuries and the degree to which they were so severe is also really common.

[00:07:47] **Amanda Luberto** When you're driving around Phoenix, you're looking around. Has it changed the way you view Phoenix after visiting something like this?

[00:07:53] **Lane Sainty** It hasn't changed the way I view Phoenix, I think. But, knowing the facts about how hot. The pavement gets. I actually, you know, it probably has changed the way I view fittings because now when I'm walking through the street, I'm thinking, oh, it's it's 100 degrees right now I'm feeling kind of sweaty, but the pavement could burn me. That changes your view of the urban environment, I guess. So, yes it has.

[00:08:18] **Amanda Luberto** You guys all wrote in the reporting that the most vulnerable people include people like the elderly or those dealing with substance abuse issues. And the Week in Heat project was able to talk to people of those demographics, which I think was part of the mission. Daniel, you got to spend some time with 93 year old Geraldine King. What is her backstory and how long had she lived in Phoenix?

[00:08:42] **Daniel Gonzalez** I can't remember how long she's lived here? It's been a long time. And this is a woman that I actually met outside the Westword. How my assignment was to write about vulnerable people. And, you know, that's that's a challenge in itself, because a lot of times, vulnerable people are people who are, you know, living on the margins and they're not easily accessible. But we have the Westward Howl Hotel, you know, a former hotel is now a federally subsidized housing right here downtown. And so within walking distance of the newspaper. So one afternoon I just walked over there, and that's how I met Geraldine. She was sitting outside in her walker and several times a day to get out of her apartment and get away from isolation, she would come outside and just sit in the heat. So we started having this conversation about what it was like for her. And this is a person who lives on \$900 a month. Her rent was \$200 a month. So she doesn't have a lot of money because people ask people, why isn't she, you know, take a cab to go places, and there's even a cab here with something that would be out of her mind. So this was somebody who walked everywhere. She would walk to the CVS store to get her medication. She would walk to pay her bills. She would walk to the, circle K to get coffee in the morning, or she would take the bus as well. But there weren't super long walks, but they exposed her to a 110 degree heat. And one of the stories she described for me was one day she had taken the bus to go see her cardiologist, and then she had to walk, I think, three blocks to his office. And in that period she had heat stroke or heat ailment. And then she got to that doctor's office and she ended up collapsing. And, she had to be taken to the hospital. So it gives you a sense of people, like living on the margins, that it's very, very difficult for them to just leave their house and then when they're exposed to the heat. And one of the reasons I really wanted to find someone like that is because I actually had a personal experience where I was out cutting the lawn one day on a Saturday, and my elderly neighbor came out and she was getting the newspaper was, you know, a day that was 110 degrees. I remember I velled over to her and I said, are you okay? And she said. do you need help? I said, I think I said, or she said, no, I'm fine. And I continued to cut the grass and a couple of minutes later I looked over and she had actually fallen and she was on the pavement burning, and I was able to run over there. And it was very difficult to, you know, lift her up just that way and get her off the pavement. So that was one of the reasons why I wanted to tell the story of, older person and the risks that they faced, because I had seen it with my own eyes of what can happen and the what? My neighbor actually ended up dying. The fire department came. They took her to the hospital. Then she had some other ailments, but she never came home.

[00:11:30] **Amanda Luberto** The likelihood that you had been there at that time--

[00:11:33] **Daniel Gonzalez** If I hadn't been there, if I hadn't seen that, she just would have been. Who could have been our that she would have been out there.

- [00:11:40] **Amanda Luberto** And you mentioned that Geraldine would come sit in the heat just to get away from isolation. From my understanding, you did get to go into her apartment. Describe what that was like.
- [00:11:50] **Daniel Gonzalez** While the Westward Ho is like, I think it's a 12 story. So there's, you know, hundreds of people who live there and all the people who live there are impoverished, you know, elderly people or people with disabilities. So we were able to go up to her apartment, and I remember it was really warm in there. And, I'm not sure if she was keeping her thermostat so high because of her utility bills, because there was other people that I interviewed, and they kept their thermostat around 85 degrees because they didn't want to be hit with a huge air conditioning bill. Even though you can apply for subsidies to help pay your, your utility bills in Arizona, there's only a certain amount of money that you can get and it can run out. So I wasn't sure if that was the reason. But she she explained to me was that she like to keep her apartment hot so that when she went outside, it wasn't such a huge contrast between, you know, an air conditioned apartment and the exterior heat.
- [00:12:48] **Amanda Luberto** She lives by herself, but from what I understand, she does have some help from family.
- [00:12:55] Daniel Gonzalez Yeah. And this is this is, I think, you know, something that a lot of older people face. You know, they want to maintain their independence. And so she's 93 years old, and she has actually a son who lives nearby, within a couple of miles away. And we we actually went out to lunch one day with her birthday, and her son came and picked her up and took her out to lunch. And I asked her, I said, well, why don't you come over here and drive your mom like when she wants to go to CVS or, you know, whenever she needs to get a ride somewhere? And he said she's just very fiercely independent. She'd grown up on a farm in Utah. I remember she said to me, I'm 93 years old, but if I lose my independence, I'll lose everything. I want to be able to continue to go and get outside and go for a walk and, you know, be physically active and not be so isolated in my apartment. And I think that's true for a lot of people who live alone, that they want to maintain their independence because they know once they lose their independence, that there's a guick decline. But independence for them means going out into the heat and being exposed to, you know, the elements. And she also talked about how much hotter it's gotten in Phoenix from when she first moved here. And I think she's she's been here at least like 20 years. And how every year it gets more and more difficult because of, you know, the the heat island effect and how we have so many days in a row now it's above 100 degrees or 100, 110 degrees.
- [00:14:18] **Amanda Luberto** You talked about how like the heat impacts her daily life, but did you get to talk to her about how it impacts her health as someone who's in their mid 90s?
- [00:14:28] **Daniel Gonzalez** I mean, she had a number of health issues. I remember she grew up in Utah and she had been exposed to some kind of radiation I care about. She had a thyroid issue, which is why she went to the pharmacy to get medication. But in terms of the heat, I don't remember her really kind of talking about like ailments that were like kind of as a result of the heat was just getting outside and standing on the corner to get the bus to go wherever she was going. It was it was difficult for her, but one of the things that she liked to do was sit outside her apartment and it's very hot out, but she sat near the doorway, so every time somebody would open up the front doors, it's a blast of cold air

would come out, which would kind of help regulate the air up, you know, in front of her building, which made it more tolerable.

[00:15:13] **Amanda Luberto** Ray, you got to talk with the people who were both unhoused and dealing with substance abuse issues. What were some of the things that you discovered?

[00:15:24] Ray Stern Well, in terms of the people who are unsheltered and they are homeless, often just out in the heat day and night, there are cooling centers that they can go to, but they, for various reasons, don't always want to go there. So people find lots of different ways to stay cool. I talked to a woman who said that she had gone into swimming pools, various, apartment complexes. She goes in and tries to look like a resident. Sometimes they kick her out, and other times they just don't care. But that's one way she stays cool. I met a lot of people that said they doused themselves with water regularly in the heat. Of course they try to find shade and they may get on public transit. We've seen that before if you've taken public transit. But I met people that said that this is one of their solutions. Essentially, they will get a bus pass and ride at a bus all day long or take light rail. Some of them do go to cooling centers in the afternoon when it gets really hot. But I also did find people that just weren't doing that. And this is because of maybe their substance abuse and or some kind of mental illness situation that they have. One woman in particular, who told me that she has several diagnoses, including schizophrenia, and I found her and her two dogs basically sitting in the sun at about 5:00 in the afternoon on a day when it was about 107 or so. But in the sun, of course, it can be much hotter. And that solar radiation just beams down on you. And she wasn't finding shade, and she told her one of her dogs to go to the shade, which I thought was in the dogs were obviously suffering, too. And so I guess my point there is that some people are just dealing with it. My main focus for this project was on a methamphetamine and the heat. I learned before I started getting into this story, and then learned a lot more about it, that methamphetamine is the absolute worst thing that you can do in a heat. It is responsible for 51% of the 645 deaths that we had last year. Drugs in general are a problem for people that go out in the heat and try to survive in this. It doesn't affect just unhoused people, but it affects them mostly. So literally, if you take drugs out of the equation, we would have just over 200 heat deaths, not 645. It's really striking. And the worst drug that you can do is methamphetamine. One thing that I found out when I talked to a lot of unhoused people is that they don't understand this. They don't believe it. They never heard this before. They all think fentanyl is the worst that you can do, because everyone has seen maybe someone in their group that is too high on fentanyl, they're passed out, or they're maybe getting a contact Bernice Lane was talking about. But methamphetamine actually is responsible for more than twice as many of the drug related deaths, basically, that we had that are heat related.

[00:18:15] **Amanda Luberto** What was it about methamphetamine that is particularly dangerous in the heat?

[00:18:21] **Ray Stern** Methamphetamine shuts down your body's heat responses. You can die of heat stroke and hypothermia in room temperature, and people do when they're just sitting in their air conditioned apartments doing meth. And then they have a meth overdose and they present to the hospital. One of the key symptoms is that your core temperature is too high and people are actually dying of heat stroke in room temperature on meth. When you go out into the extreme heat environment that we have here in Phoenix in the summer, then it just exacerbates everything. Scientifically, it's it's interesting and macabre. But the way this works is it affects your body's thermostat. It's actually which is your

hypothalamus, which is in the middle of your brain. And it always tries to keep your blood at a 98 degrees, which, as we all know, that's that's the temperature that your body has to operate on. And when it gets too high, then your body do certain things to lower it. When it's too low. Your body does certain things to raise it in the heat. One thing that your body's thermostat does is it it slows down your metabolism so that basically all of your body starts to work a little bit slower. You get fatigue when you're out in the heat, and that's actually a heat response. That that's because the less you move around, the less your internal temperature will be raised. When you're on meth, that changes that. And basically it doesn't shut down your metabolism. It makes you more excitable. And you're on an amphetamine. And so you continue to move. You continue to keep your internal temperature very high, and your body just doesn't even really understand that you're too hot. It does a couple of other interesting things, which is that it dilates your blood vessels. And so you've noticed that when you see people that are in the heat and their face turns red or they get some red, that's because your blood is closer to your skin. Your normal heat response is your blood vessels opened in. A hit, and that allows your blood to go more near your skin where it's feeling the evaporative effect of sweating, and then it returns back, you know, inside your body a little bit cooler. Meth restricts your blood vessels, and so it prevents that from happening. At the same time, you might experience excessive sweating on meth and that just dehydrates you, but it doesn't actually cut you off because your blood vessels are too dilated. So the other interesting thing is that it also is more responsible for the contact burns that people are getting in the hospital, according to a study that they did in 2022, more people on meth were getting contact burns. And I was kind of wondering like, how can that be? Because you're a wide awake? Well, the fact is, eventually you may crash, but it also dulls your ability to feel pain. And so if you if you're sitting on a sidewalk or whatever, you might get a contact burn on your leg, not realize it until it's already burnt. And then the last thing I just want to say about that is going out and talking to people about it. There's a lack of knowledge about this, and I saw people that were actually smoking meth, and, you know, around certain areas where a lot of unsheltered people were hanging out, then they would get on a bike and just right away, even though there's a cooling center there, of course, they don't allow drugs in the cooling centers and the shelters. So so that's a problem for people. So I'm not exactly sure what the solution is, other than if enough people realized that meth is something that is extremely bad for you to do in the heat, then maybe at least some people will take a little bit of extra precaution to stay cool. Of course, don't do drugs, but if you are, take that extra precaution and realize that it could send you into a heat situation that can kill you.

[00:21:53] **Amanda Luberto** You mentioned something that I wanted to ask all of you guys. Dehydration is a killer for anybody. It can make you unaware. It can make you dizzy, can make you nauseous, and especially in the heat. We all know. Obviously drink more water in the summer, especially in Arizona. Always have it on you, all that kind of stuff. But if you are unhoused or impoverished or on drugs and things like that, if you're in these vulnerable demographics, you might not have accessibility to water all of the time. Was dehydration a consideration and something you guys noticed a lot in the people that you spoke with?

[00:22:32] **Ray Stern** For me? Not as much. I would say that unsheltered people know that they need water. If they're really high and their judgment is impaired, then they might not use. The water is much, but there's a lot of water that that you can you can get. But are they drinking it? That's the question I think.

[00:22:50] **Daniel Gonzalez** I didn't encounter that. But I'm wondering, Ray, how are people getting water?

[00:22:54] **Ray Stern** Well, although a lot of businesses will turn homeless people away that show up and ask for water a lot, don't you know there's a humanity that's out there where if you see someone who's asking for water, people usually do give them water. There's hundreds of thousands of water bottles that are donated to various groups every year. Those are given away quite frequently in the summer. And if you're unhoused and homeless, you probably know where the shelters are. And there's parks where people are hanging out, where there are water fountains, places like that. So it's not like you can't find the water. I think that the main problem for dehydration and this can go for really anybody who's who's housed and or not on drugs is you just don't remember that you really need to be drinking quite a bit of water. And of course, it's so dry here that the sweat evaporates off your skin almost immediately since coming out, so you don't even realize how much you're sweating and that you're giving away. You're shedding a lot of your water, and everyone needs to remember to drink a lot if you're going to be out in the heat.

[00:23:53] **Amanda Luberto** Lane, was it something that you spoke with the people in the emergency room about?

[00:23:57] **Lane Sainty** It wasn't really. And I guess, you know, by the time people are arriving at hospital, they're usually on IVs at once. They roll into the. But my sort of job in the whole hate project, as well as the reporting at the hospital, is to put together all of those stories into a narrative, along with one of our colleagues, Richard Riley's. And in that a lot of people that the various reporters spoke to talked about water just as a thing that they're always thinking about in the summer. And this was maybe more even among the people who, I suppose, we would put into our adapt category of living in the heat who were doing pretty well, like they have the basics, and they're just trying to work, you know, go to school, go to band practice, get through the day. Those people often mention that they carry an enormous bottle of water around them in the summer, as a lot of us do. And another thing that sort of came up when I was putting the narrative together was, a family. I think it was a family reunion hike. This large group of hikers who set out during the week that we were covering, and their hike sort of ended in disaster. They had set out, I think, around 730 in the morning. A couple of hours later, I ended up calling emergency services and needing to be rescued off the trail. There were three young kids, and I think one of the things they told responders was that their water was running low. And so, you know, it does come up. I think it's something that that everyone is thinking about a lot of the time.

[00:25:24] **Amanda Luberto** I lived in Arizona all but two years of my life. I consider myself a native and things like that. And you hear all the time. But you're from Arizona. Are you used to the heat by now? Is there a way to be used to the heat or is the answer? It's hot and everyone is adjusting or suffering in their own ways.

[00:25:48] **Daniel Gonzalez** Well, I mean, I moved here from the opposite. I moved here from upstate New York, where, you know, we dealt with ten feet of snow and frigid cold for eight months of the year. So this is I really was the polar opposite for me. And I would say that I definitely have gotten used to the heat. I much prefer the heat than the cold. I would not go back to upstate New York. I feel like, you know, even though it's very hot here, like anything else, you get used to it and you can still get out. And I mean, I exercise every morning. I go for a walk or run. I ride my bike, I go, so I mean, I use the public pools. So I mean, obviously life goes on. One of the things, though, that personally I'm always amazed by is like when you go by construction projects or, you know, the landscapers or the all the workers that we have here, that their job is to work in the outdoors and the extreme heat that they're exposed to. And how I know that if I go out and spend an hour

and a half like Saturday, I usually go out for a long run and I'll be out by 2.5 hours for a run, but try to get home by like, you know, 730 or 8. But I see these workers who are, you know, working eight, ten hours a day in the heat. And I always wonder, how do they do it? How do they spend that much time in the heat and then go home and not collapse, and then be able to get up and do it again? So obviously people do get used to it. I think that was one of the things that was amazing about this project. And I think that Lane alluded to, is that a lot of times when you talk to your friends who are live in other parts of the country, they have this image that people just stay in their houses all day and life can't function, or that you walk outside, you're just going to drop dead. And one of the things that this project showed is that it's very, very hot here. But people adjust and life does go on. And there is a lot of people who work outdoors and are able to, you know, exercise and do things outside and still get by. That doesn't discount the dangers that are out there. But people do find a way to adjust and live their lives.

## [00:27:53] Amanda Luberto What about you, Ray?

[00:27:54] **Ray Stern** Well, I say absolutely. People can get used to it. I've lived here for almost 50 years. Came here from New York City when I was a little kid, and I love the heat. I get out in it a lot. I think it's important if you want to get used to the heat, shut off your air conditioner and drive around when it's 90 or 95, you'll find that it's not too bad, and that allows you to adjust to the heat a little bit. When I hiked to a peak on Tuesday evening, it was 106. And let me just tell you that I wouldn't do that if I was miserable. And, you know, and I've turned around on hikes when I'm absolutely miserable because I'm in the sun and it's just, like, frighteningly hot. But in the evening, especially to where the trail is actually more on the east side. So in the evening you get a lot of shade, you get some nice wind. And I was a little bit warm, but didn't even think about the heat when I was hiking up. And then when I come home, people like my wife will say, you're crazy for doing it. And and I'm like, you know, it's really not that bad.

[00:28:53] **Amanda Luberto** Lane is the heat here different from where you're from?

[00:28:57] **Lane Sainty** It is different in that it's the summer lasts longer and the lows are much higher. I almost want to put quote marks around lows. But I grew up in a pretty hot part of Australia where it does get to this sort of 110 temperatures. Although of course we use Celsius over there, but it really is just in the peak of the day and not it doesn't stay as hot overnight. So, you know, it has been an adjustment. But I would agree that you do get used to it. I definitely don't feel like I'm a shot in in the summer. You know, I walk to and from work, which is probably my main way of acclimatizing and yeah, get up early, do things whenever people at home ask me about. And I do quite often, because I think Phoenix being very hot is the primary thing people who aren't from the US know about Phoenix. I, you know, I often just say, you know, I'm really lucky to live in a place with AC and to work in a building where they say, and I can live my life around the heat in that way, and think about what time of day it is and stuff like that, so you can get used to it. Yeah.

[00:30:12] **Amanda Luberto** Thank you for listening to this week's episode of Valley 101. We rely on your questions. So if you're curious about something, please let us know by visiting Valley 101.azcentral.com. Your submission might be our next episode. We want to learn more about Arizona's weather and climate. While we have a weekly Arizona climate newsletter that you can check out. I'll put a link in our show notes, but you can also find it by searching newsletters on our website. If you love Valley 101 want to support the podcast, please consider subscribing to azcentral. Your subscription helps us cover more topics and dive deeper into Arizona's history, culture and oddities. Don't forget to add

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