



Pediatric Vehicular Heatstroke

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NORTHWEST PORTLAND AREA
INDIAN HEALTH BOARD
Indian Leadership for Indian Health

Climate crisis drives heat wave

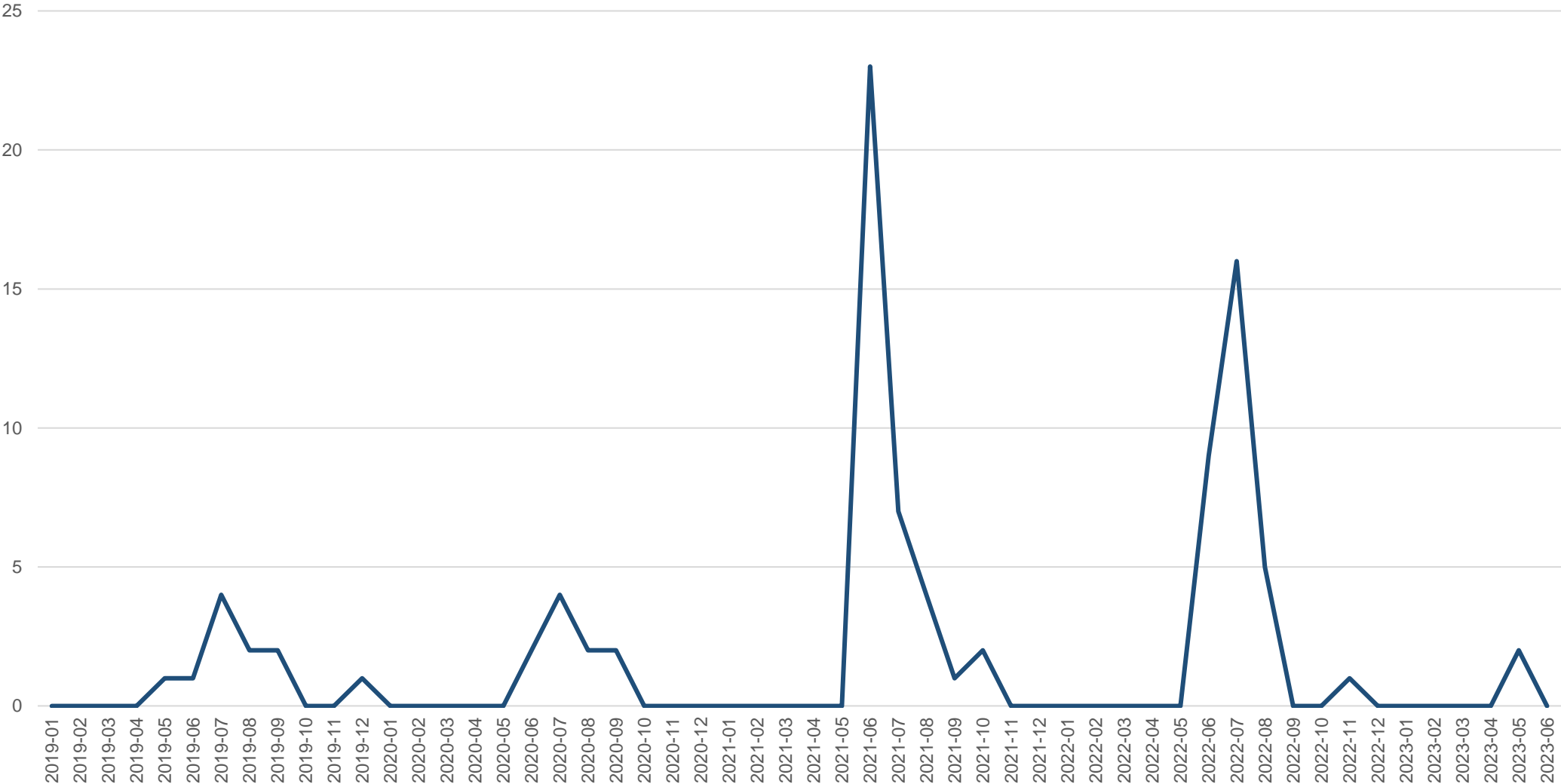
- Heat waves expanding across the south this week
- Triple digit temperatures and extreme humidity impact millions
- Night time temps not cooling down enough to offer reprieve
- Recording breaking consecutive days of near record or record high night time lows
- Urban concrete/asphalt “islands” absorb more heat than area with parks, rivers and tree lined street, when temps are supposed to cool down that retained heat is release back into the air
- Night time is a critical time to relieve the stress on our bodies from being overheated during the day



Northwest Heat Wave Soars Earlier

- May 2023 temperatures smashed records across Oregon and Washington
- 800 people died in Oregon, Washington and British Columbia during the heat dome weather event in late June and early July 2021
- Oregon passed law for all new residential construction as of April 2024 to have one room with air conditioning
- Portland, OR responded with installing portable heat/cooling pump units in lower income housing

Heat-related emergency department visits for AI/AN in Oregon were highest Summer 2021.



Transportation & Safety Orgs Prioritize Pediatric Vehicular Heatstroke



National institutes and organizations prioritize the prevention of heat stroke in vehicles



Focus on children, our most vulnerable, who are at higher risk of dying from heat stroke after being left or trapped in vehicles



All hot car deaths are preventable

- nsc.org/heatstroke
- noheatstroke.org
- cpsboard.org/heatstroke
- nhtsa.gov/campaign/heatstroke

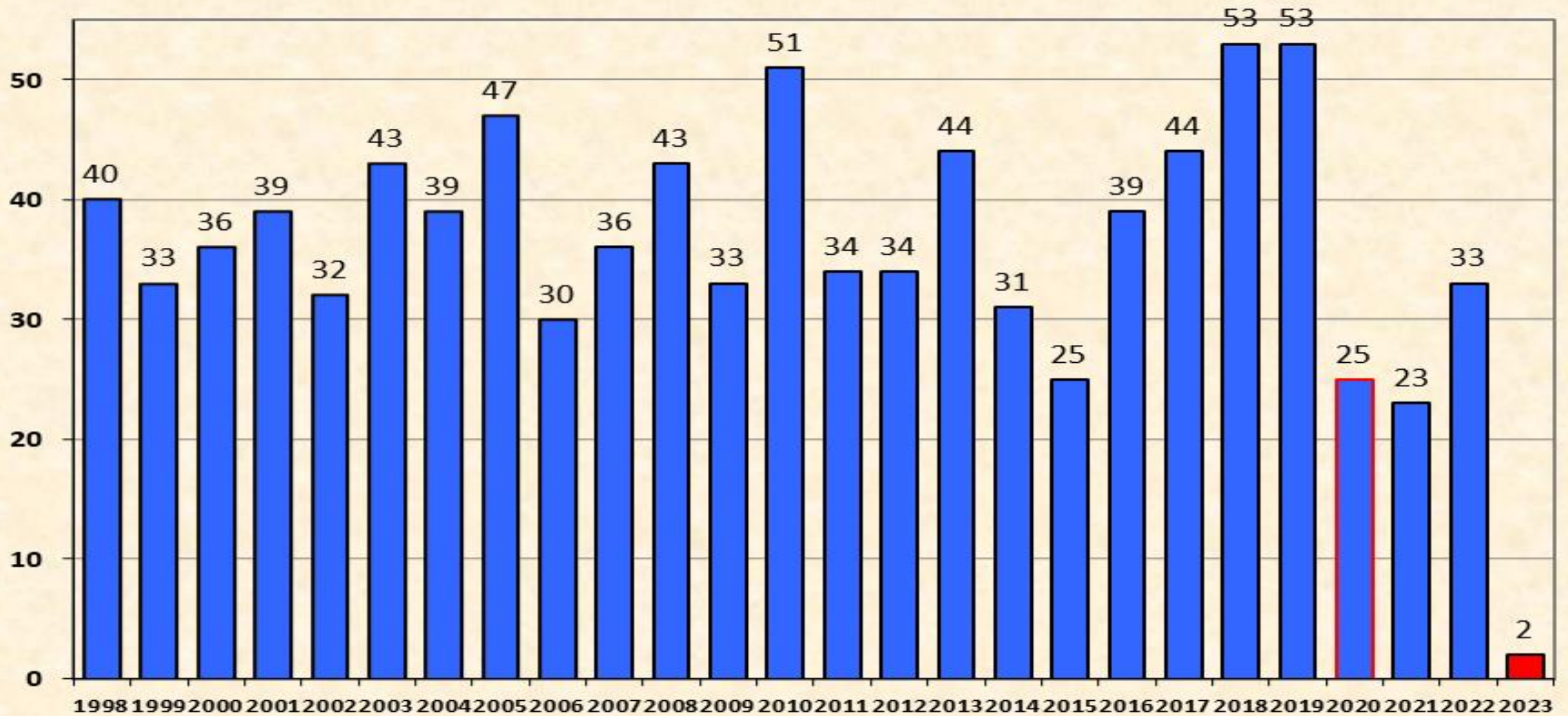
Pediatric Vehicular Heatstroke (PVH)

- About 38 children die each year from PVH.
- Nationally 8 PVH deaths have occurred as of 6/12/23
- PVH is the leading cause of death in vehicles (excluding crashes) for those 14 and younger.
- Whether participating in summer activities or beginning school routines, research shows that tragedy can strike among anyone
- Important for parents, caregiver, providers, community member to be vigilant about dangers of children in hot cars

KidsAndCars.org and NoHeatStroke.org

Vaidyanathan A, Malilay J, Schramm P, Saha S. Heat-Related Deaths — United States, 2004–2018. MMWR Morb Mortal Wkly Rep 2020;69:729–734. DOI: [http://dx.doi.org/10.15585/mmwr.mm6924a1external icon](http://dx.doi.org/10.15585/mmwr.mm6924a1external_icon)

Pediatric Vehicular Heatstroke Deaths



Source: Jan Null, CCM, Department of Meteorology and Climate Science, San Jose State University, <http://noheatstroke.org> (last updated 4/3/23)

Pediatric Vehicular Heatstroke Deaths: Monthly Distribution

(1998-2021)

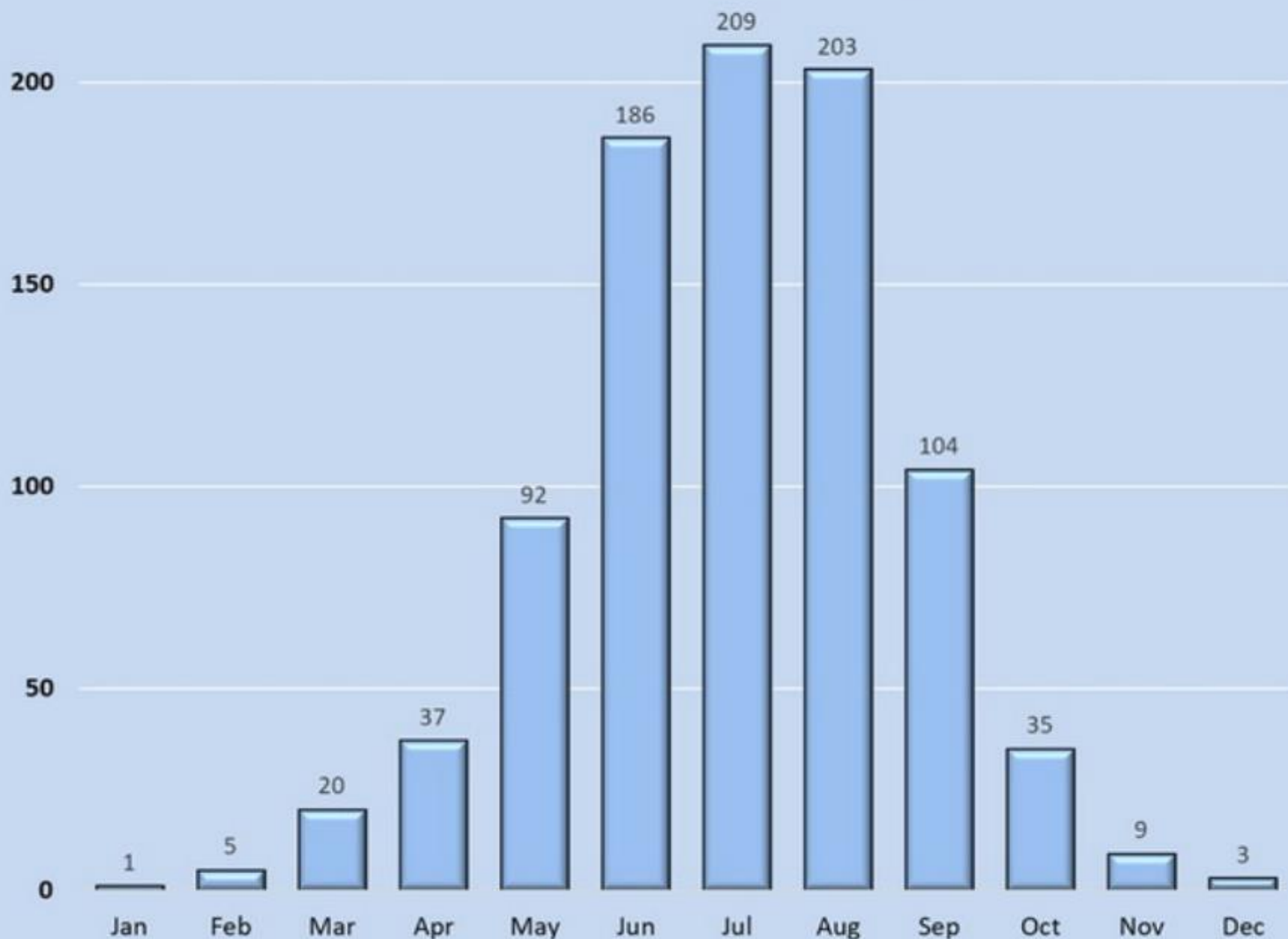
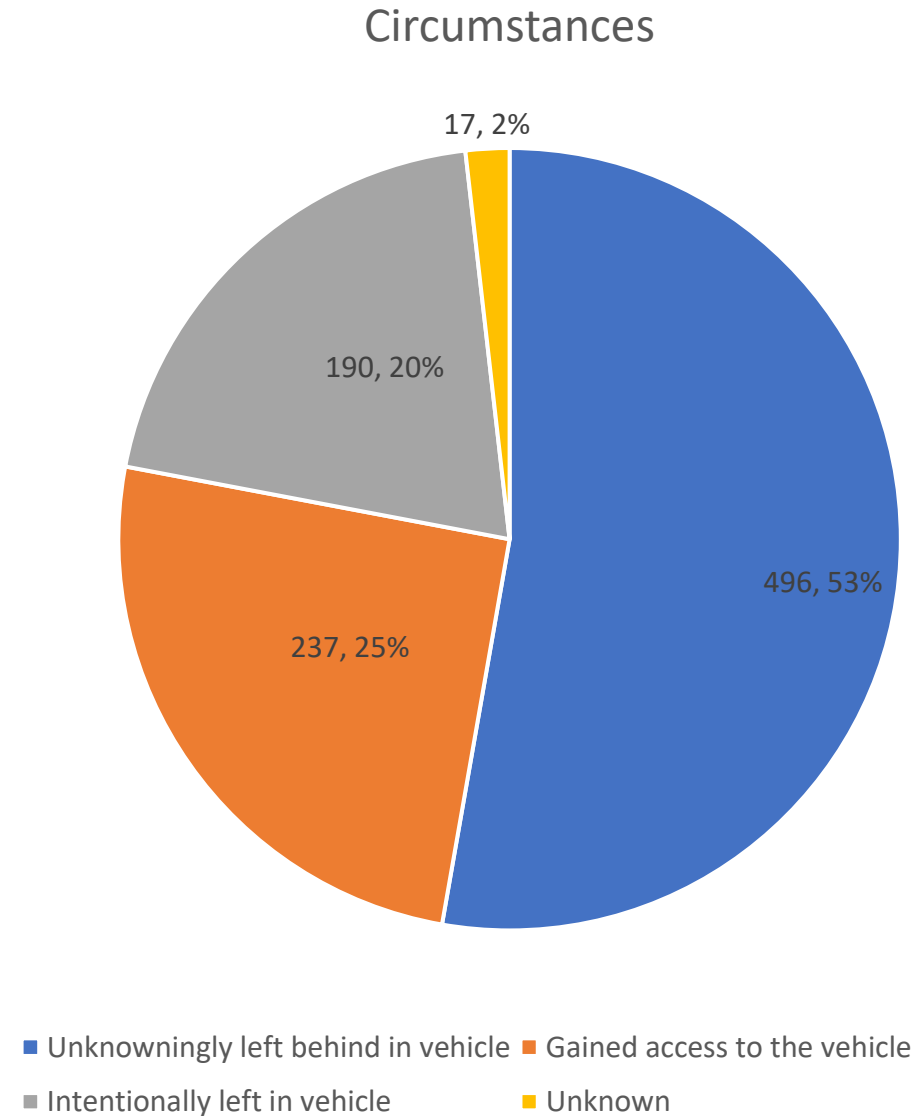


Figure 2.

How does this happen?

An examination of media reports about the 938 pediatric vehicular heatstroke deaths for a 25-year period (1998 through 2022)





Vulnerability of Children in Hot Cars

A child's body temperature rises 3 to 5 times faster than an adult's

Heatstroke begins when the core body temperature reaches about 104 degrees

A child can die when their body temperature reaches 107 degrees.

A woman with dark hair, wearing a grey cardigan over a dark top and a beaded necklace, is smiling and looking down at a young child with curly hair. The child is seated in a car seat, and the woman's hands are near the child's hands. The background is a blurred view of a car's interior and windows. The overall lighting is soft and natural, suggesting daytime.

It Doesn't Take a Heat Wave

Even on mild days, the temperature in a car can rise by 19 degrees in only 10 minutes and cracking the window doesn't help.

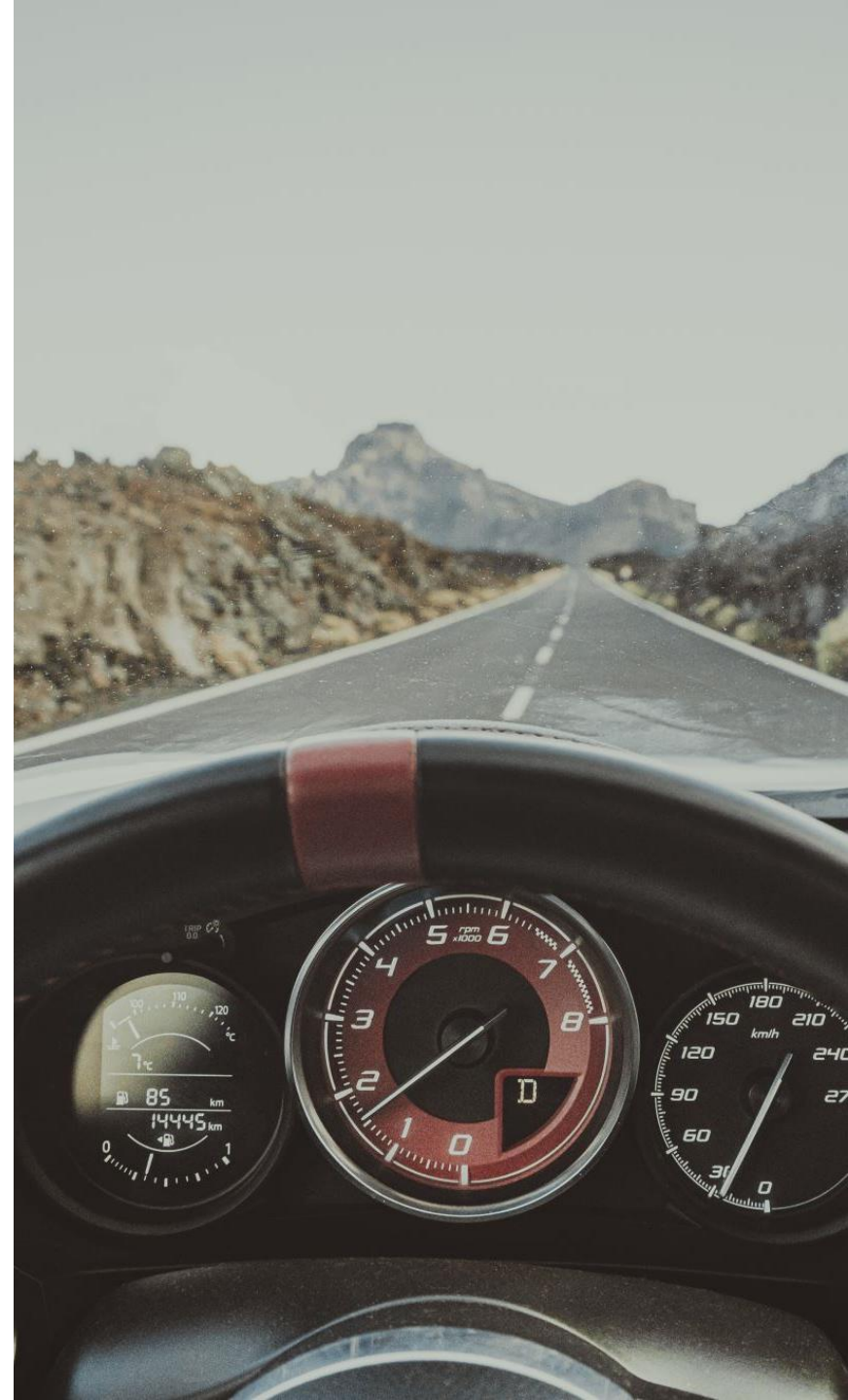


So what can we
do, Tam?



National Safety Council Toolkit on Vehicular Heat Stroke

<https://training.nsc.org/hot-cars/>



Parents preventing vehicular heatstroke



Set your audible GPS on your phone or car to your child's childcare destination



While important to focus on the road when driving, talk to your child along the way



Even if your child is not old enough say out loud to child where you are going on that trip especially if it deviates from your routine



Set your cell phone alarm for your expected destination add a label on your alarm setting



One child is secured, place your phone, purse, your left shoe, lap tap next to car seat, something that you will need at your destination

LOOK BEFORE YOU LOCK!

Create a routine! Check off the tasks you will try today.



Make it a routine to open the back door of your car every time you park.



If you are driving a child, after you correctly buckle them in a car seat or booster seat—**put something you need at your destination in the back seat** so you will open the back door: a cellphone, employee badge, handbag, or other item you need to keep with you...even your **left** shoe!



Ask your babysitter or child care provider to call you if your child hasn't arrived as scheduled.



Keep a stuffed animal in the child's car seat. Place it on the front passenger seat as a reminder when the child is in the back seat.



Set the alarm on your cell phone or computer calendar as a reminder to drop your child off at child care. Remember to make the alarm song/sound different from all other alert sounds on your device.



If you have a **change in routine**, such as your spouse or parent dropping your child off at child care instead of you, make sure you and the other person communicate to confirm the drop-off was made.



Consider technology that alerts drivers to check the back seat. (Vehicle and child restraint manufacturers have been working on various evolving alert systems and some technologies are available now!)

Keep **CURIOUS CHILDREN** Safe!



Teach children that keys and remote openers are NOT play toys.

Keep car keys and remote openers out of reach of children.



Teach children (even toddlers) how to honk the horn of a car if they become trapped inside.

Never leave children alone in or around cars; not even for a minute.



If a child goes missing, immediately check passenger compartments and trunks of all vehicles in the area, even if they are locked.

Keep vehicles locked at all times, even in driveways or garages. Ask home visitors, child care providers, and neighbors to do the same.



EDUCATE



EVERYONE



WHO CARES FOR YOUR CHILD

...about vehicle heating dynamics, the lure of unattended cars to curious children, and the power of autopilot on the brain.



Leverage social media, neighborhood groups, church groups, parenting groups. Post information regularly—especially on hot sunny days. Offer to do a brief presentation at a group meeting.



If you're not a natural-born presenter, use the **Children in Hot Cars e-learning course** during your presentation, to help support you as you present the topics.

WHAT TO SAY TO CAREGIVERS.

Approach anyone who needs this critical information with a neutral, non-judgmental attitude.

"I know you care about safety as much as I do, so I want to share some information that has changed how I operate when my children are in the car."

"My spouse and I just devised a safety plan for our children involving cars and other vehicles. I want to share it with you because you're such a valued member of our [family/caregiving team]."

Cite an actual case in your state/area and say, "This family's story really woke me up—and has changed my behavior! I want to share with you what my family is doing now, and how you can help us make sure we're careful and consistent."



nsc.org/hotcars

Email the link to the **Children in Hot Cars e-learning course** to anyone who cares for your child. Follow up afterwards to discuss the information.



nsc.org/heatstroke

Also visit: noheatstroke.org

Estimated Vehicle Interior Air Temperature v. Elapsed Time

ELAPSED TIME	OUTSIDE Air Temperature					
	70	75	80	85	90	95
0 minutes	70	75	80	85	90	95
10 minutes	89	94	99	104	109	114
20 minutes	99	104	109	114	119	124
30 minutes	104	109	114	119	124	129
40 minutes	108	113	118	123	128	133
50 minutes	111	116	121	126	131	136
60 minutes	113	118	123	128	133	138

Courtesy Jan Null. CCM: Department of Meteorology & Climate Science, San Jose State University

Pediatric Vehicular Heat Stroke Resources

- [nsc.org/hotcars](https://www.nsc.org/hotcars)
- [nsc.org/heatstroke](https://www.nsc.org/heatstroke)
- [noheatstroke.org](https://www.noheatstroke.org)
- [cpsboard.org/heatstroke](https://www.cpsboard.org/heatstroke)
- [nhtsa.gov/campaign/heatstroke](https://www.nhtsa.gov/campaign/heatstroke)

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Project Period January 2021 to December 2025
Grant No. D261IHS0202-01-00
Funder NIH, NIMHD

Tribal Injury Prevention Cooperative Agreement Program
Project Period January 2021 to December 2025
Grant No. D261IHS0202-01-00
Funder DHHS, IHS

Native CARS TIPCAP Overview

- Coalition
 - Sign up using the QR Code
 - We meet every quarter month (January, April, July, October)
- Pedestrian Safety
 - New injury prevention activity
- Child Passenger Safety
 - Well established and practiced activity
 - NativeCARS.org



Pedestrian Safety Partnership Offerings

- Pedestrian Safety
 - Community Pedestrian Safety Evaluations
 - Tribal community StoryMap creation activity
 - To bring awareness to high traffic injury area with pictures, videos, and stories
 - Community Walk Audit Activities
 - To assess areas with high pedestrian and motor vehicle interaction; popular intersections



Child Passenger Safety Partnership Offerings

- Child Passenger Safety
 - Tribal Community Specific Child and Driver Restraint Use Data Collection
 - Data is applicable to the BIA Indian Hwy Safety Occupant Protection Grant
 - Child Passenger Safety Seat Check and Distribution Events
 - Car seat fittings, car seat resources can be distributed
 - Child Passenger Safety Trainings and Courses
 - Child Passenger Safety Technician Certification Course
 - Safe Native American Passengers (SNAP) Trainings (NOT a certification training)



Importance and Role of Child Passenger Safety Technician in Tribal Communities

- MV injuries are the leading cause of PREVENTABLE death among children in the US.
- Always buckling children in the appropriate car seat will reduce serious injury by up to 80%.
- Factors and impacts to having CPST in native communities
 - Socioeconomic impact
 - Rural communities
 - Access to resources
 - New parents/uninformed of need for CPS
- Why it is important to maintain certification
 - Maintain resources for community
 - More expensive and time consuming to retake CPST class than recertify
 - National Certification and network of contacts and resources



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