



Children's Safety  
Network



Education  
Development  
Center

April 22, 2021

2:00 p.m.- 3:00p.m. ET

# Protecting Children from Heatstroke in Vehicles



# Moderator



**Kristin Kingsley, M.S**

Founder

KKingsley Consulting:  
Auto Safety Strategies

# Funding Sponsor

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Child and Adolescent Injury and Violence Prevention Resource Centers Cooperative Agreement (U49MC28422) for \$5,000,000 with 0 percent financed with non-governmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

# Technical Tips



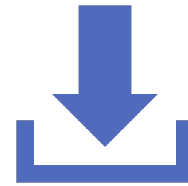
Audio is broadcast through computer speakers



If you experience audio issues, dial **(866) 835-7973** and **mute computer speakers**



You are muted



Download resources in the File Share pod (above the slides)



Use the Q & A (bottom left) to ask questions at any time



This session is being recorded



# Speakers



Amy Artuso, MPH

Senior Program Manager  
Grants, Transportation and Advocacy  
National Safety Council



Jan Null, CCM

Meteorologist and Adjunct Professor  
San Jose State University

# **Pediatric Vehicular Heatstroke Deaths:**

# **By the Numbers**

April 22, 2021

Children's Safety Network

Jan Null, CCM

San Jose State University

[NoHeatstroke.org](http://NoHeatstroke.org)

# Recent Headlines

- 7-week-old baby found dead after being left in van
  - 3-year-old dies after being found unresponsive in family car
  - 2-year-old left in hot car dies
  - Fort Worth boy, 3, dies after crawling into hot car
  - 5-year-old dies in day care van
  - Two children dead after being left in car for 15 hours
  - Baby left in vehicle pronounced dead in Caldwell
- ...AND MANY MANY MORE



# Today's Plan

- **Current Stats**
- **What is Heatstroke?**
- **How Hot Cars Get**
- **Tracking Cases**

# Today's Plan (cont'd)

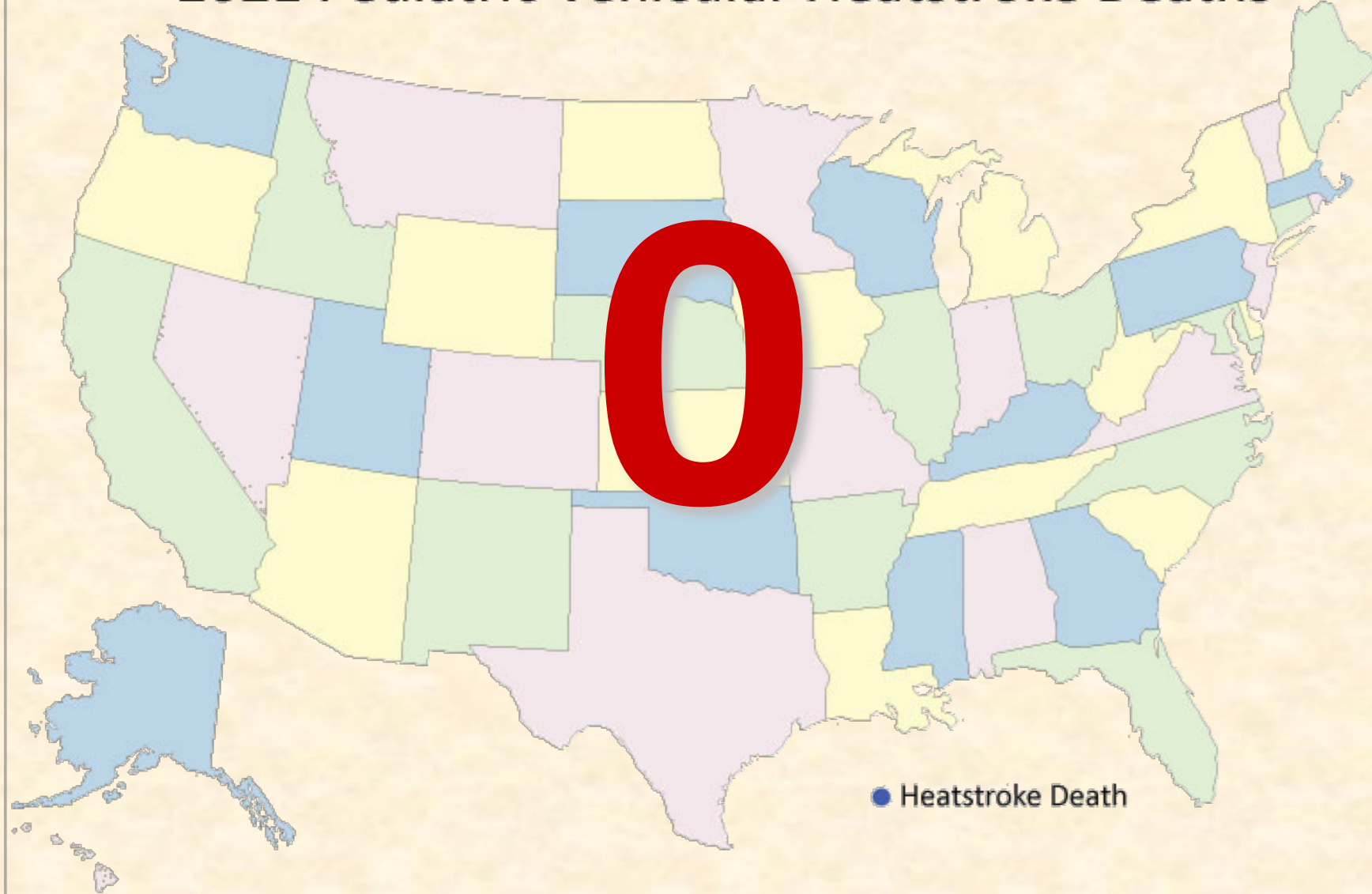
- **Legal Miscellany**
- **Trends and Patterns**
- **Technology & PVH**
- **Safety Recommendations**



# A Meteorologist?

- NWS for 23 yrs. and Private Consultant for 23 yrs.
- Adjunct Professor of Meteorology since 1987
- Media Question
- July 2001 – San Jose, CA  
Kyle Patrick Gilbert – age 5 mos.
- Controlled Study - 2002
- Published in *Pediatrics* – 2005
- Began work with the child safety community

## 2021 Pediatric Vehicular Heatstroke Deaths

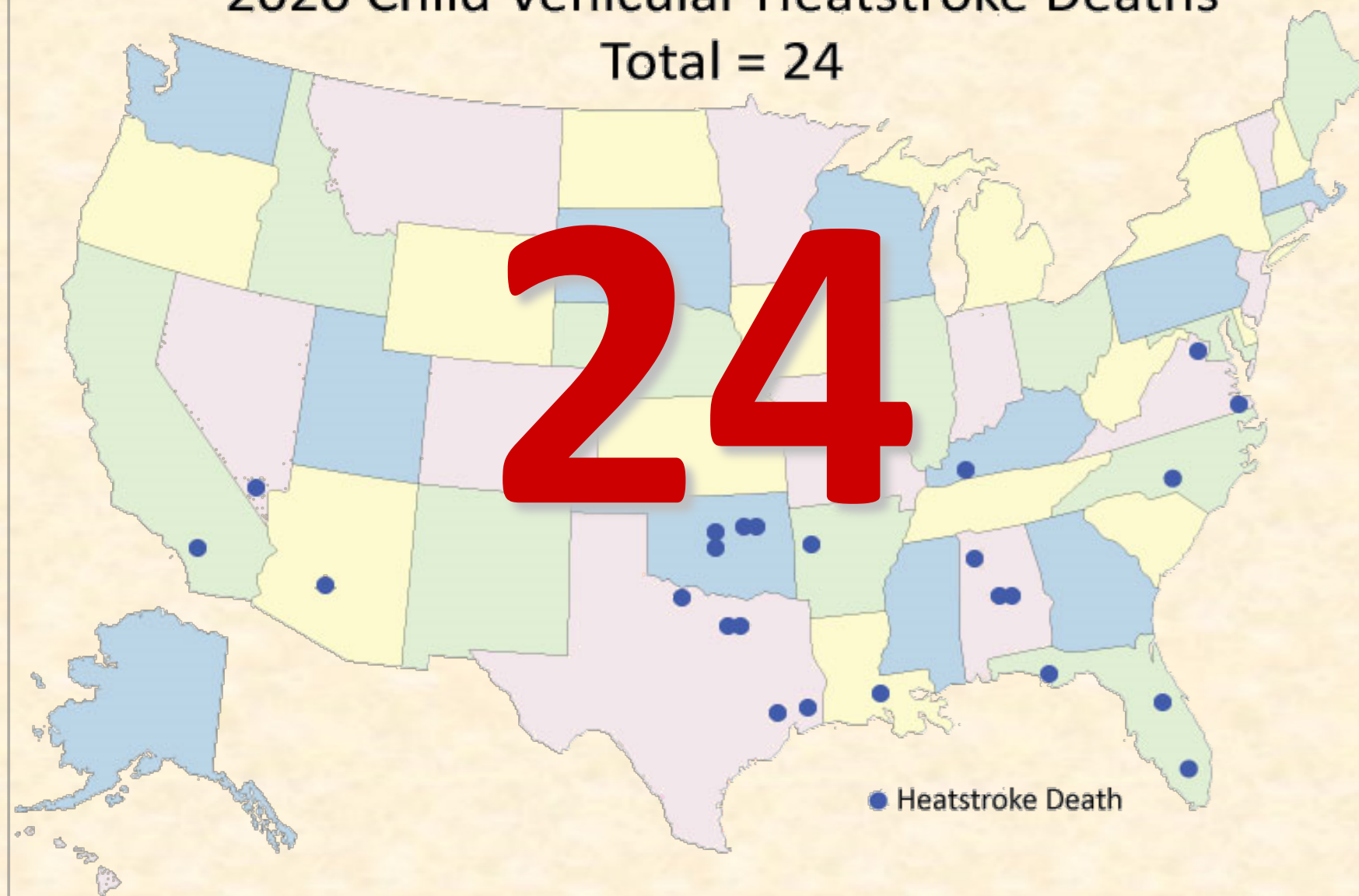


Source: NoHeatstroke.org



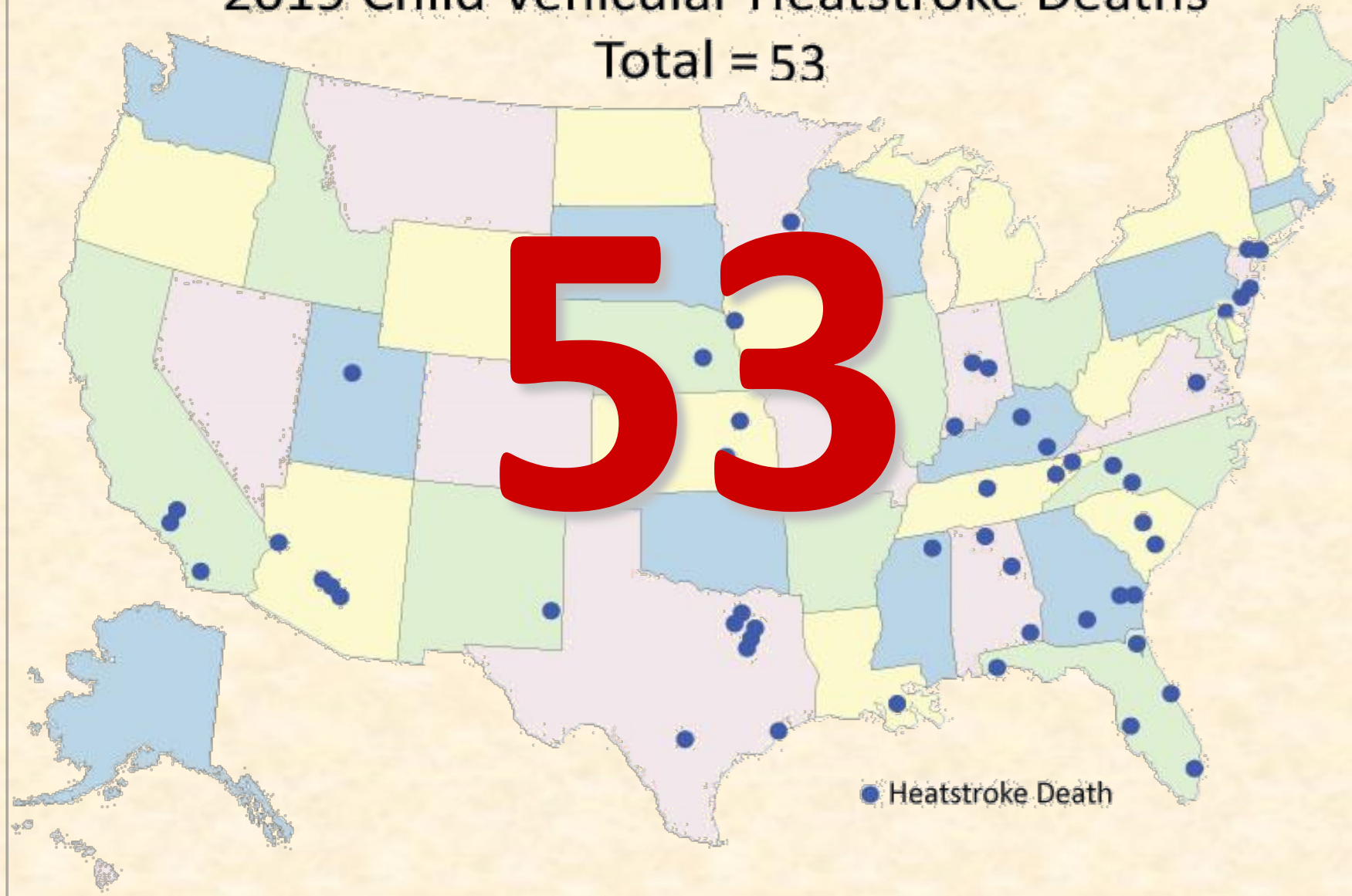
## 2020 Child Vehicular Heatstroke Deaths

Total = 24



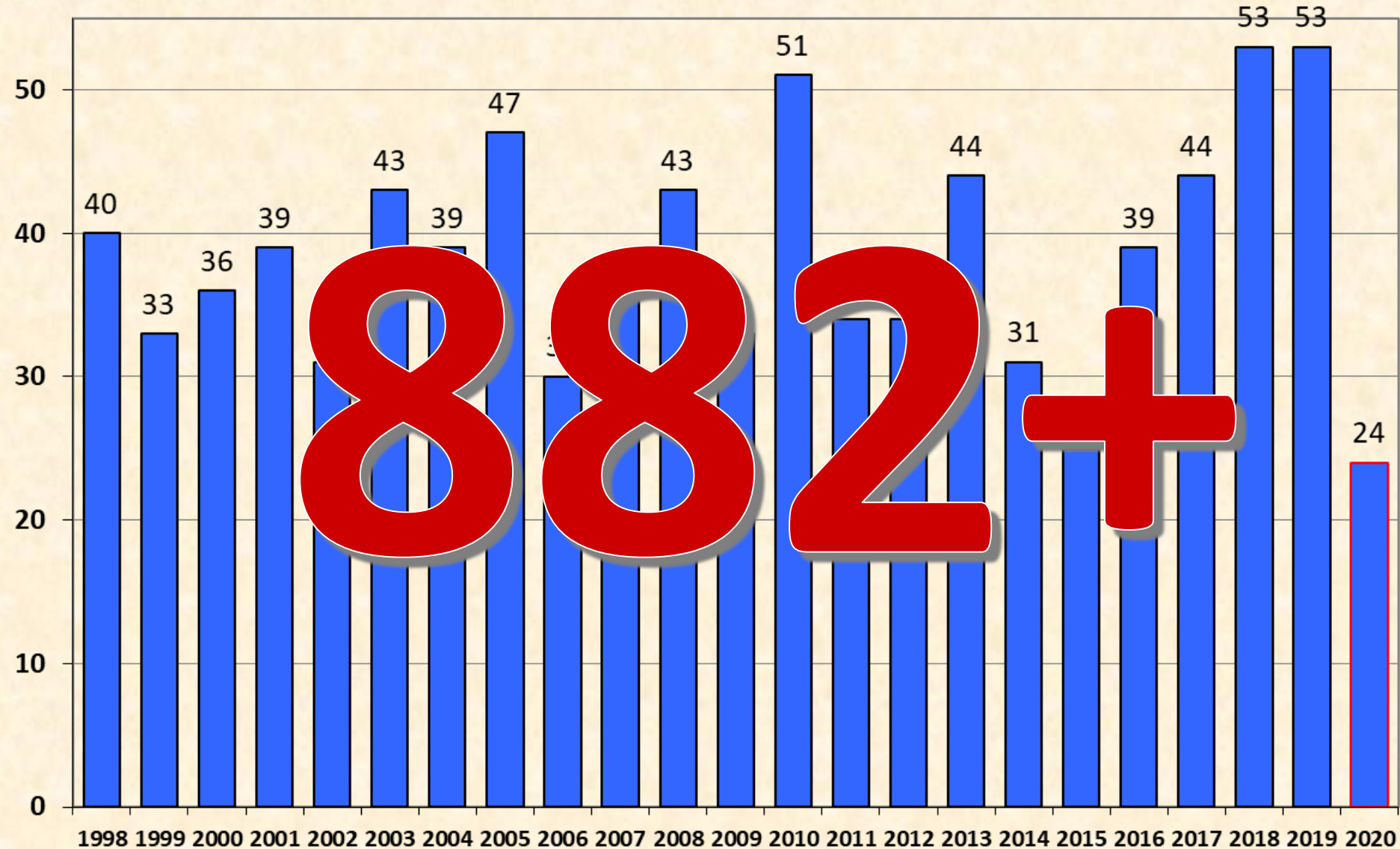
# 2019 Child Vehicular Heatstroke Deaths

Total = 53





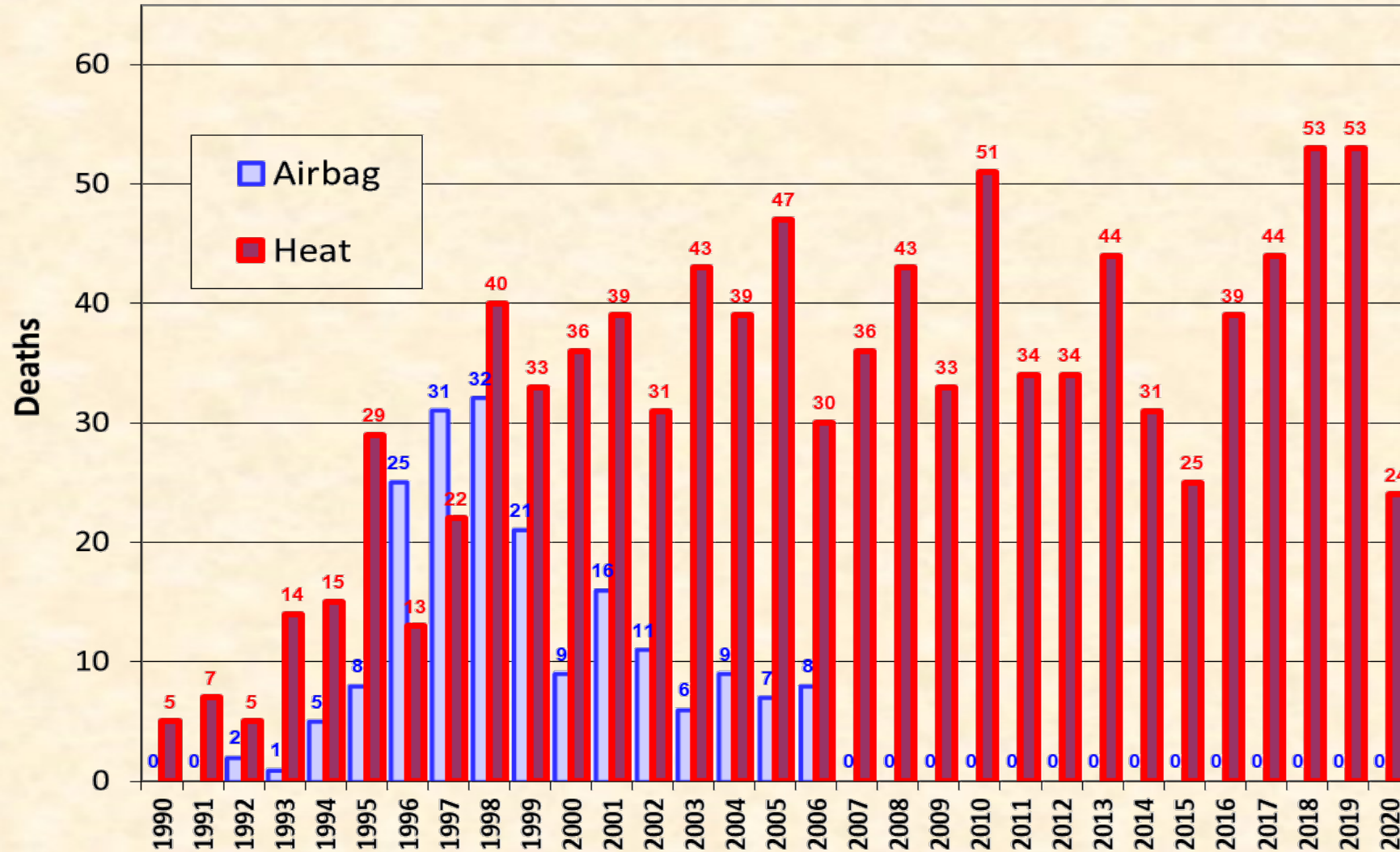
# Pediatric Vehicular Heatstroke Deaths





# Vehicular Child Fatalities

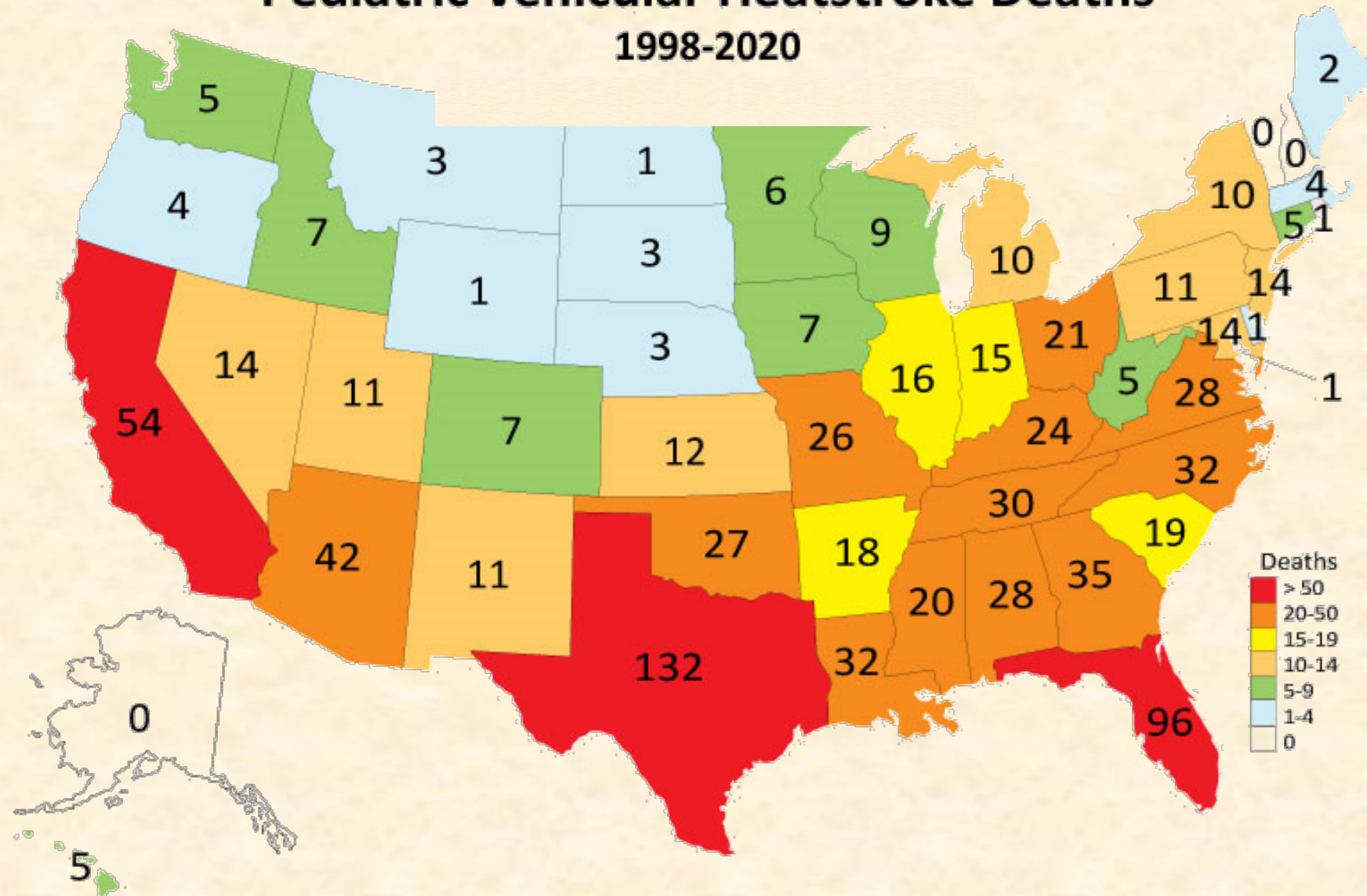
## Passenger Side Airbags<sup>1</sup> and Heatstroke



<sup>1</sup>NCSA, NHTSA ; "Counts of Frontal Air Bag Related Fatalities and Seriously Injured Persons", July 2007

# Pediatric Vehicular Heatstroke Deaths

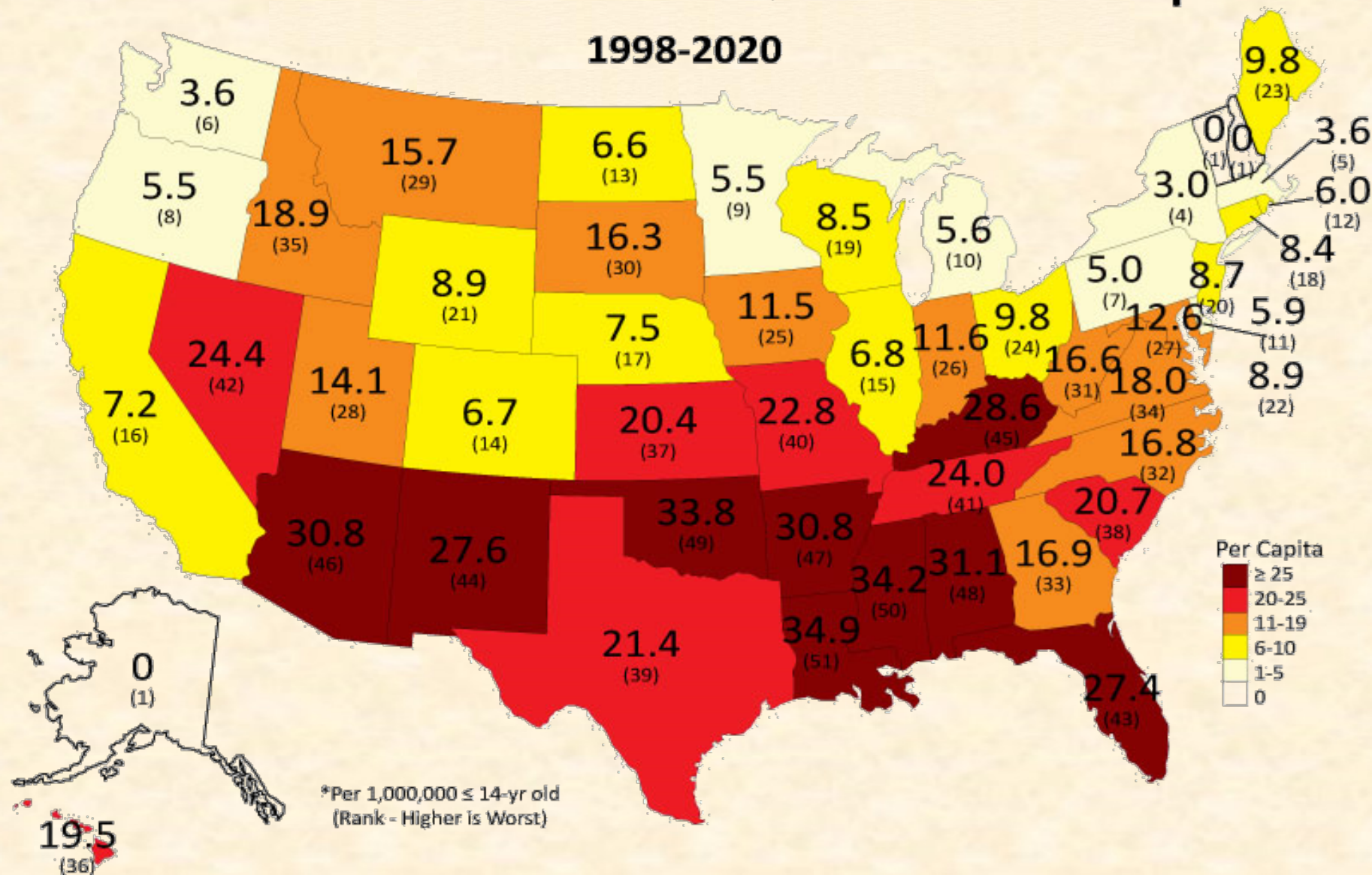
1998-2020



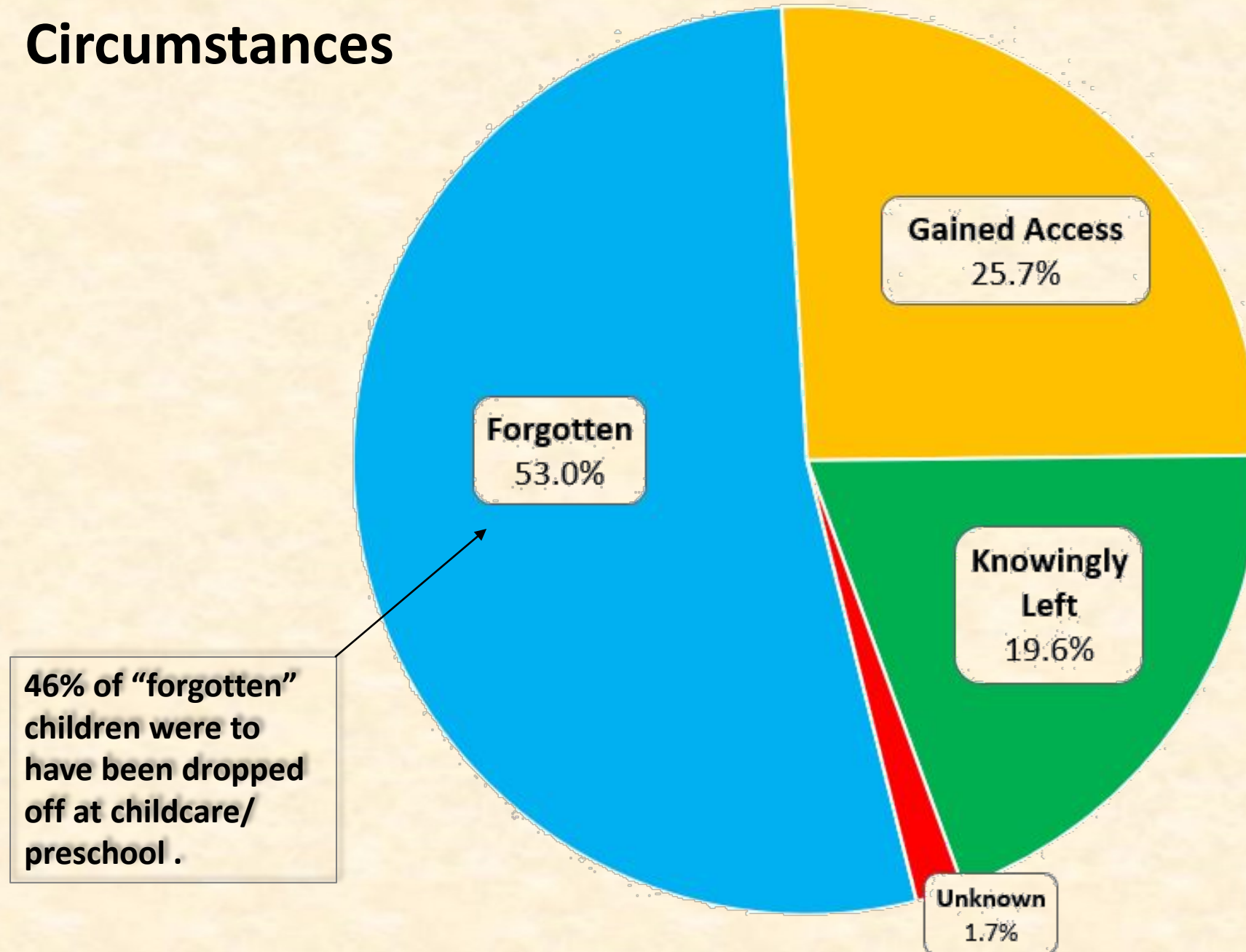


# Pediatric Vehicular Heatstroke Deaths Per Capita\*

1998-2020

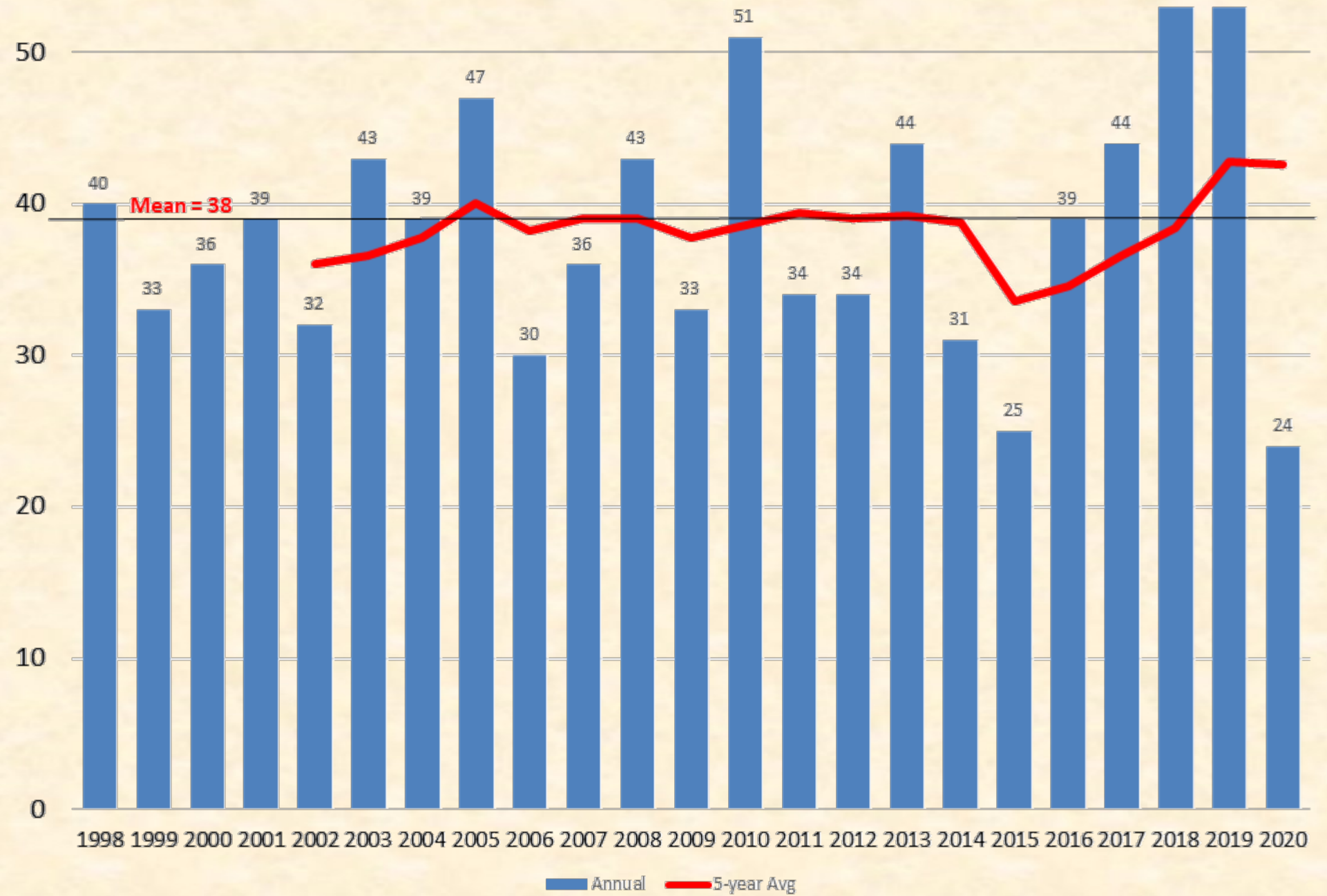


# Pediatric Vehicular Heatstroke Deaths Circumstances



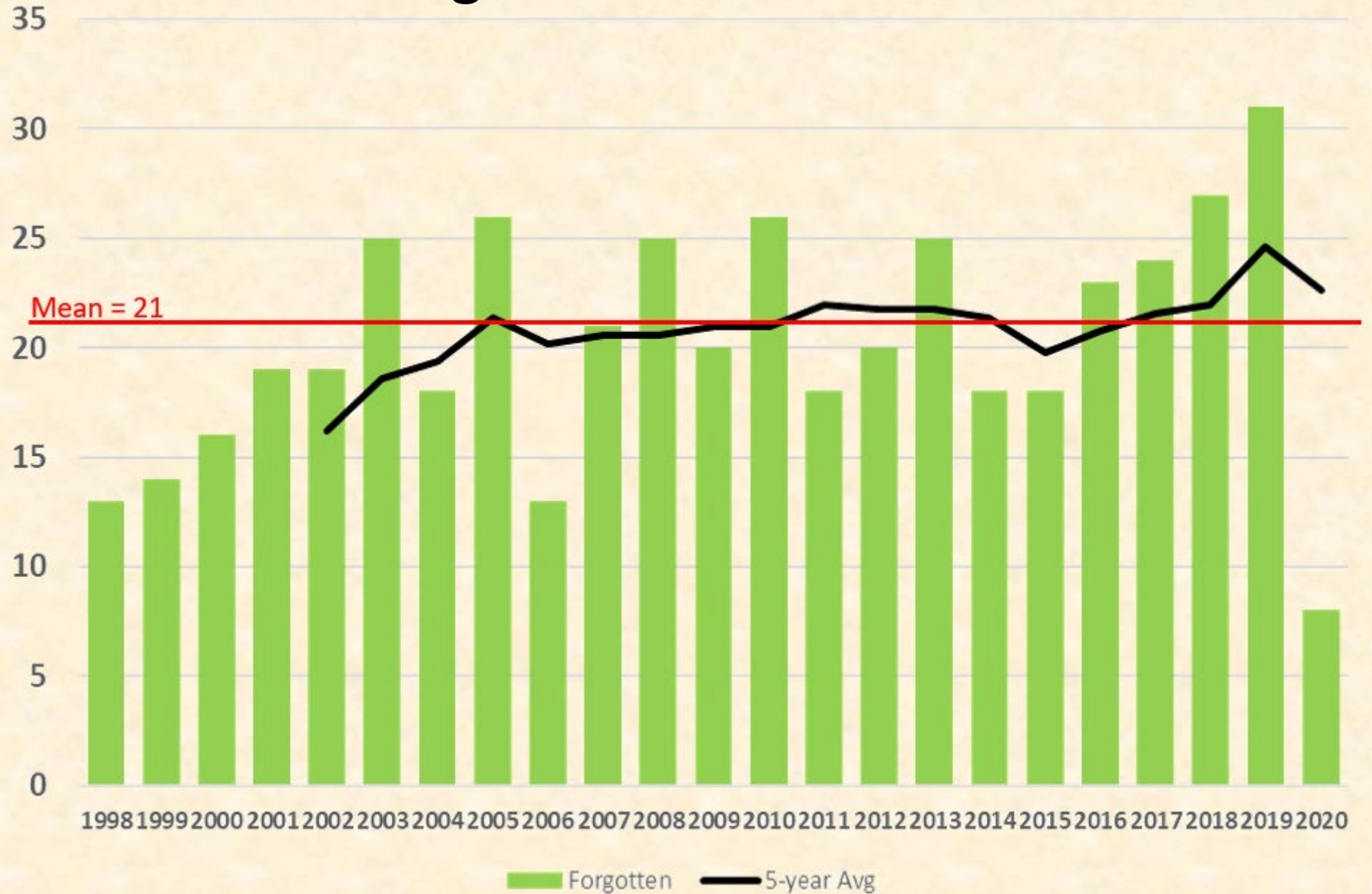


# Pediatric Vehicular Heatstroke Deaths

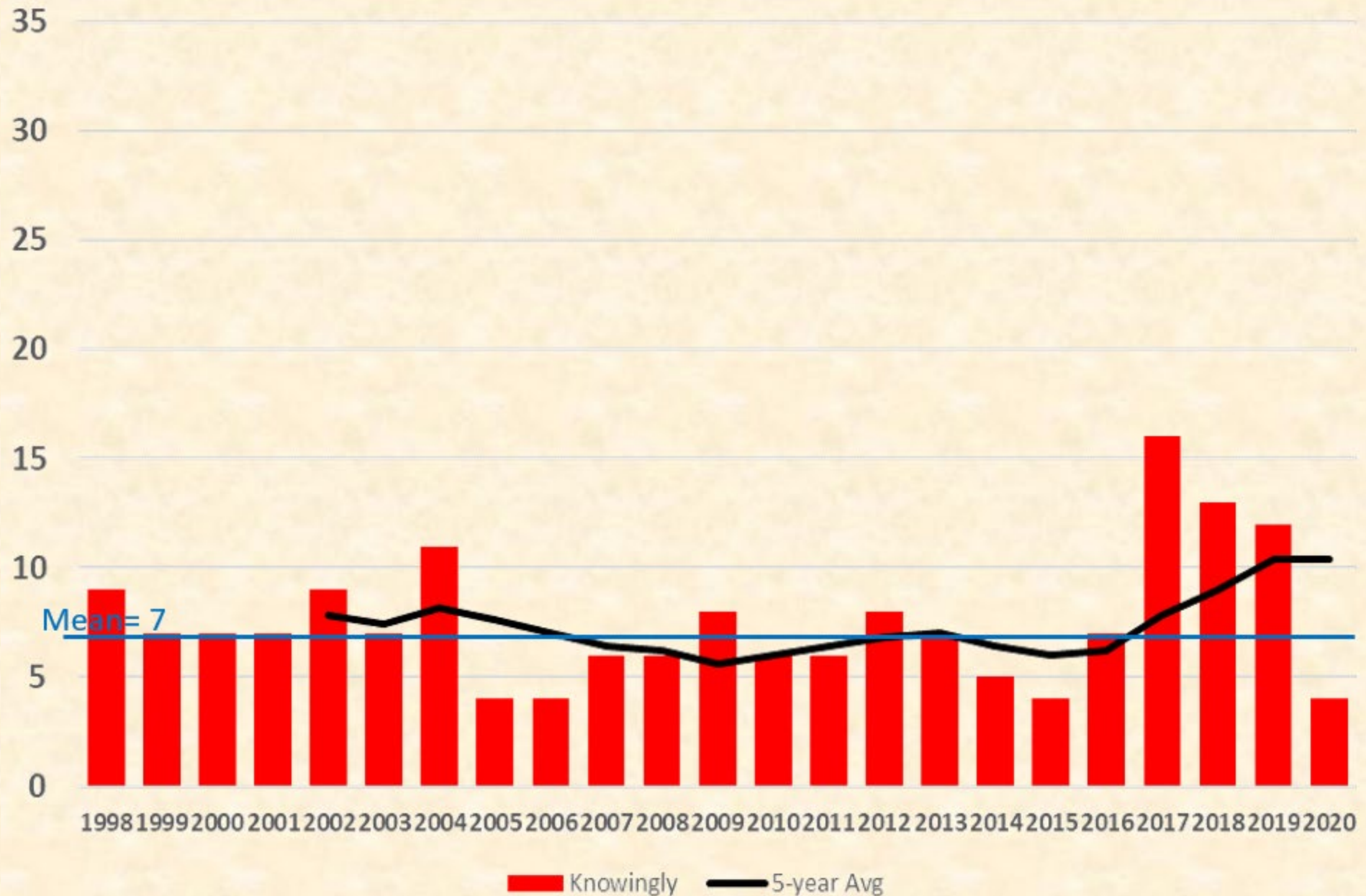




# “Forgotten” PVH Deaths

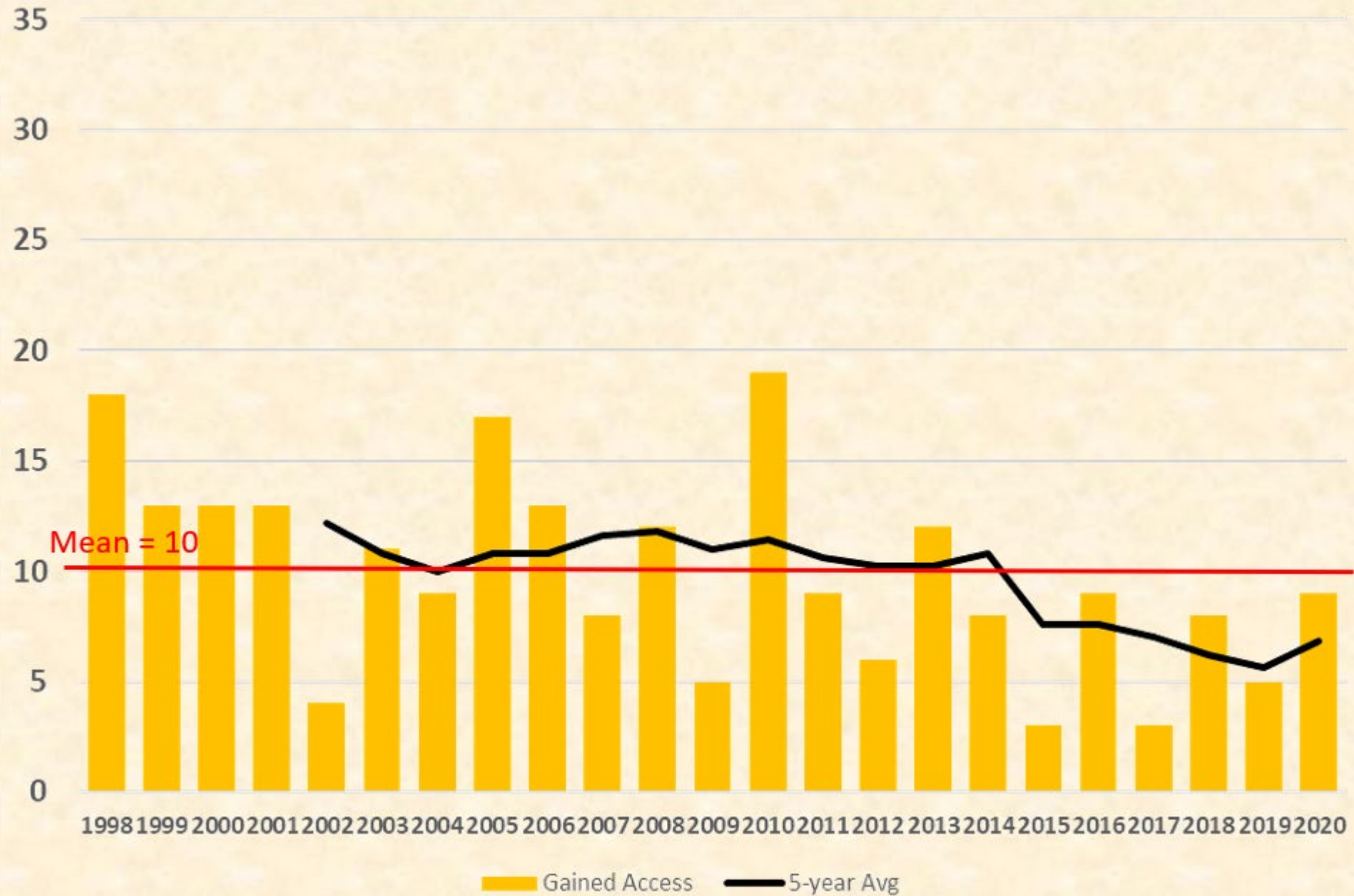


# “Knowingly Left” PVH Deaths



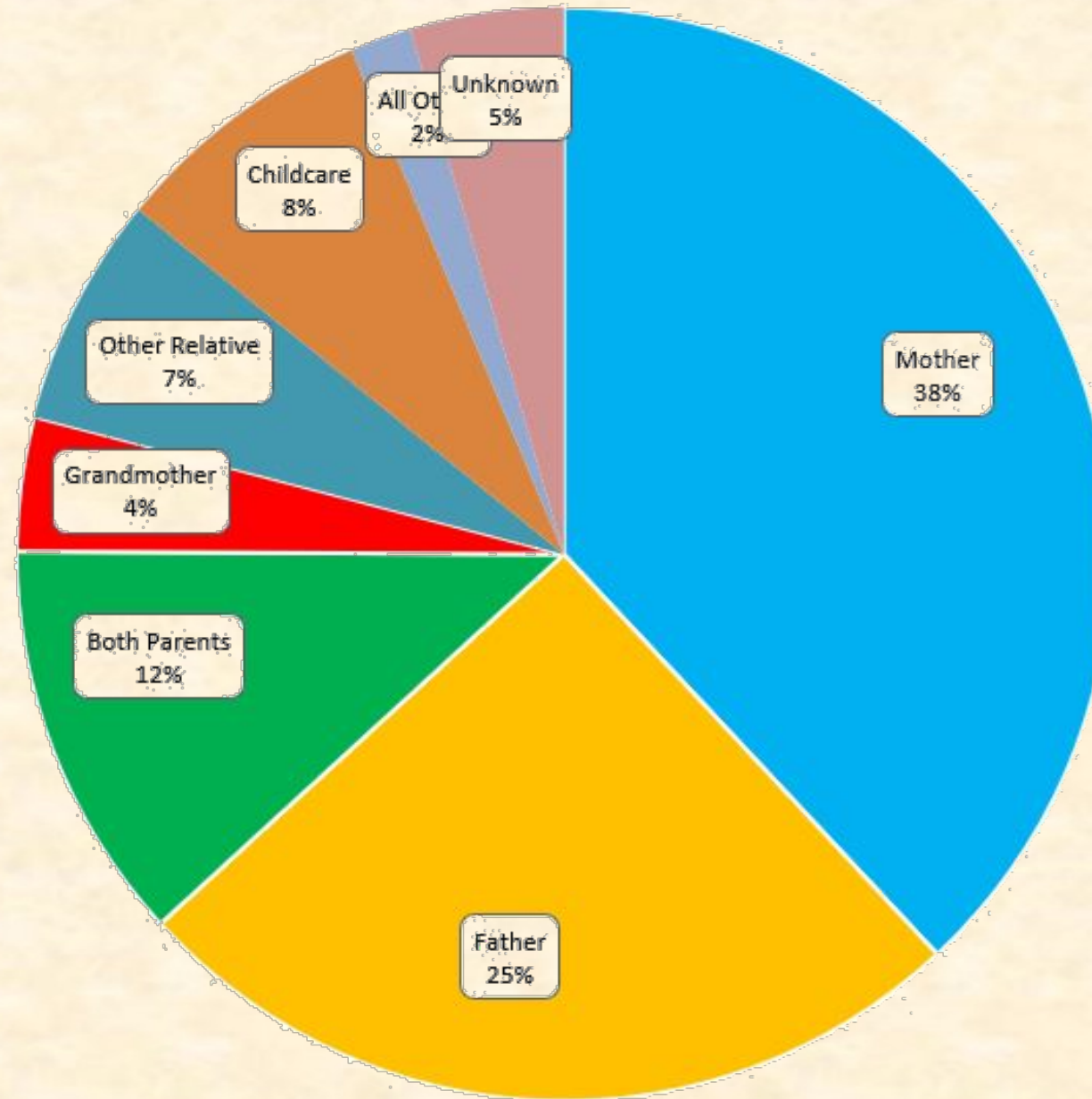


# “Gained Access” PVH Deaths



# Pediatric Vehicular Heatstroke Deaths

## Responsible Person



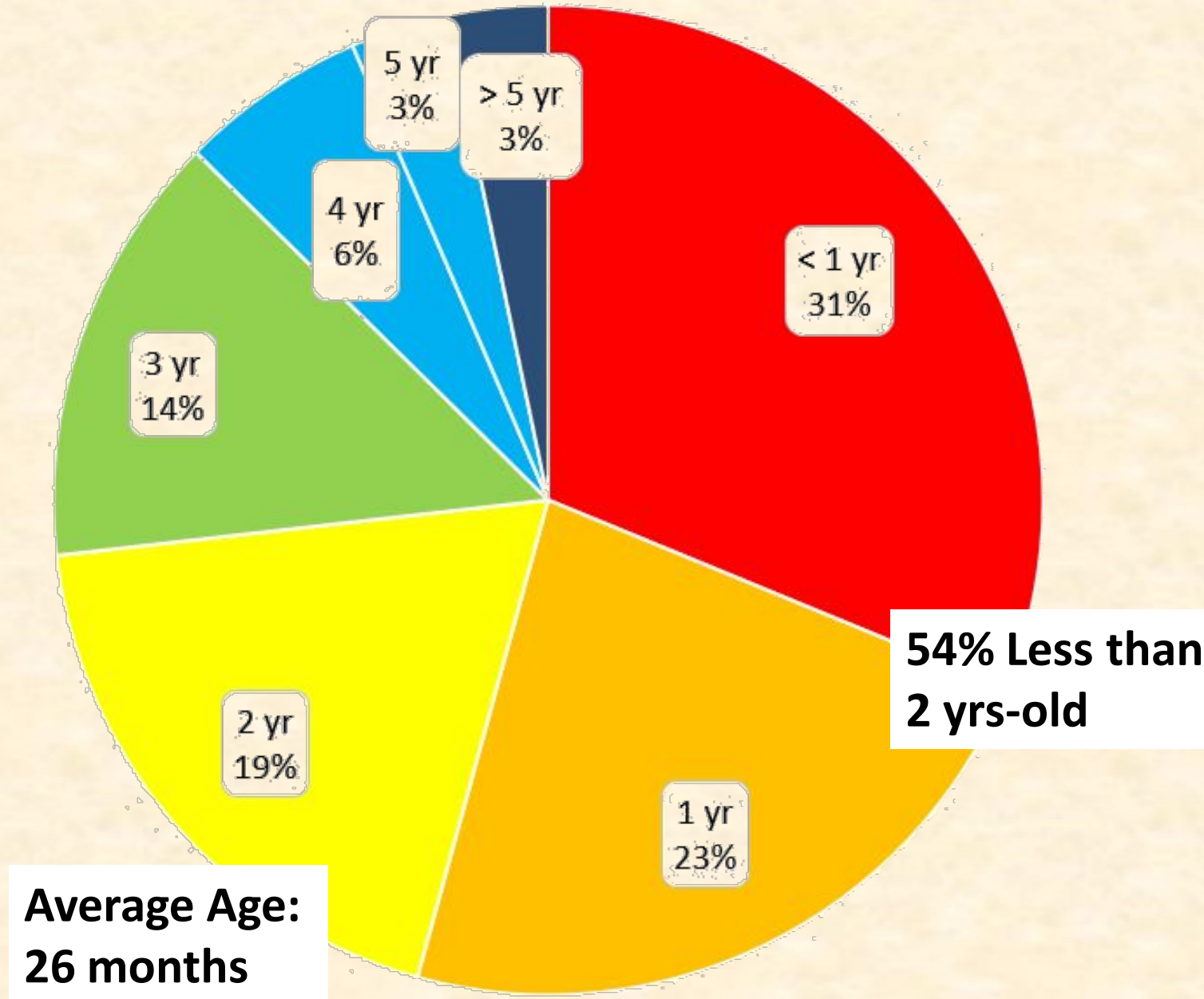
# It Can Happen to Anyone!

Accountant	Coach	Military	Scientist
Administrator	Dad	Mom	Secretary
Aunt	Dentist	Nurses	Social Worker
Baby Sitter	Engineer	Physician	Student
Barber	Firefighter	Police	Teacher
Barista	Grandparent	Police Officer	Tradesman
Childcare Provider	Judge	Principal	Uncle
Clergymen	Lawyer	Researcher	Waiter

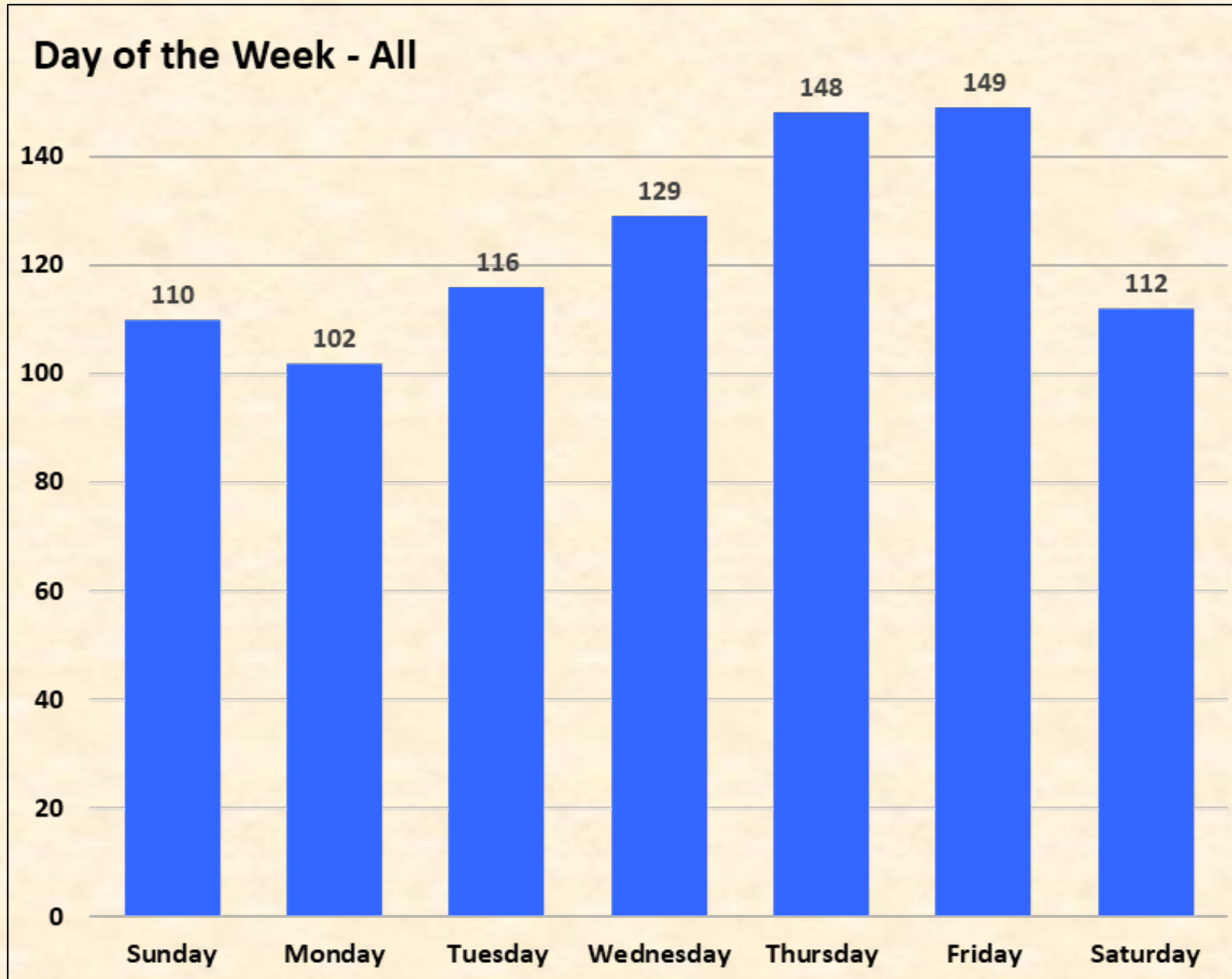


# Pediatric Vehicular Heatstroke Deaths

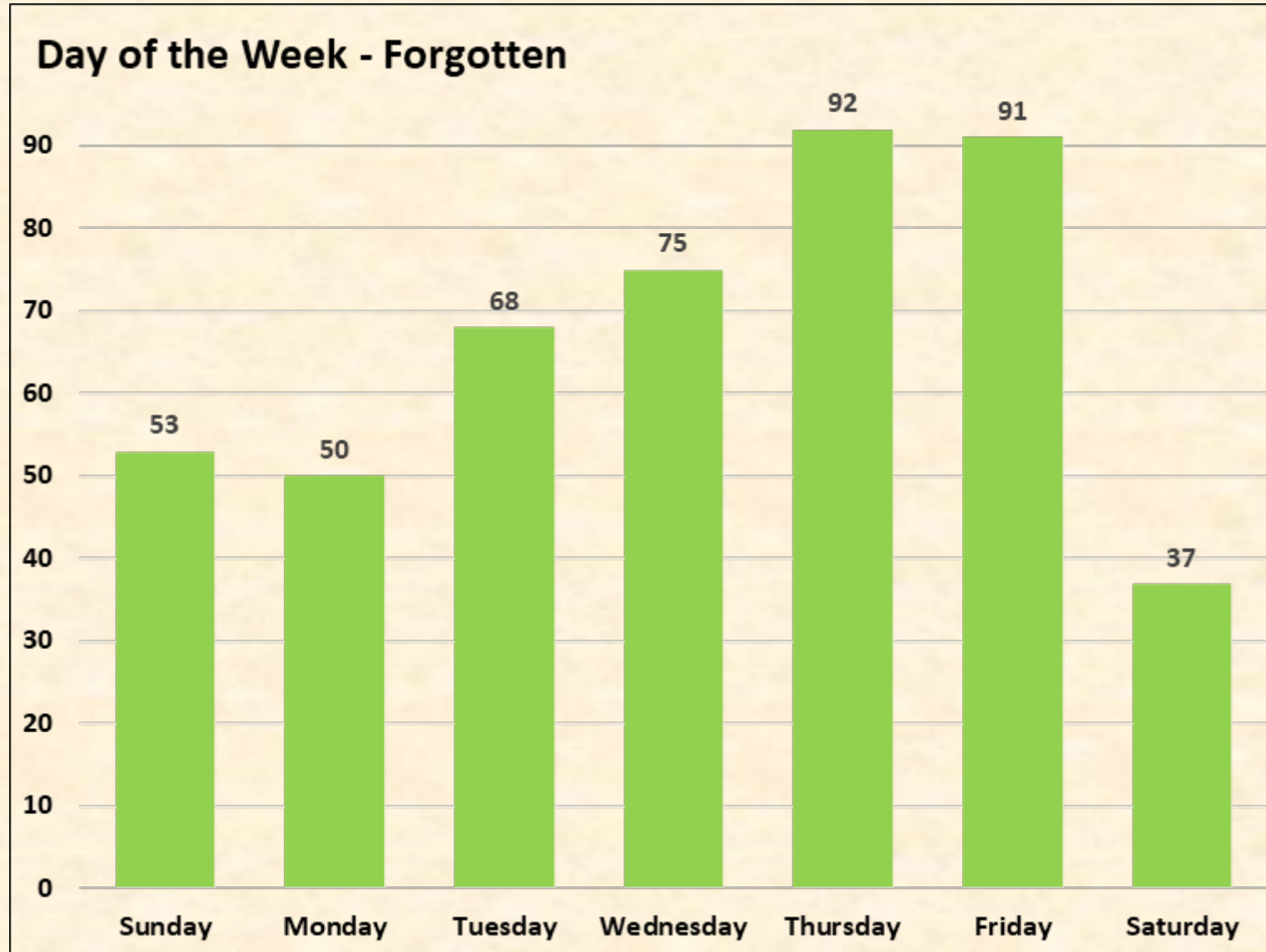
**Age**



# Pediatric Vehicular Heatstroke Deaths

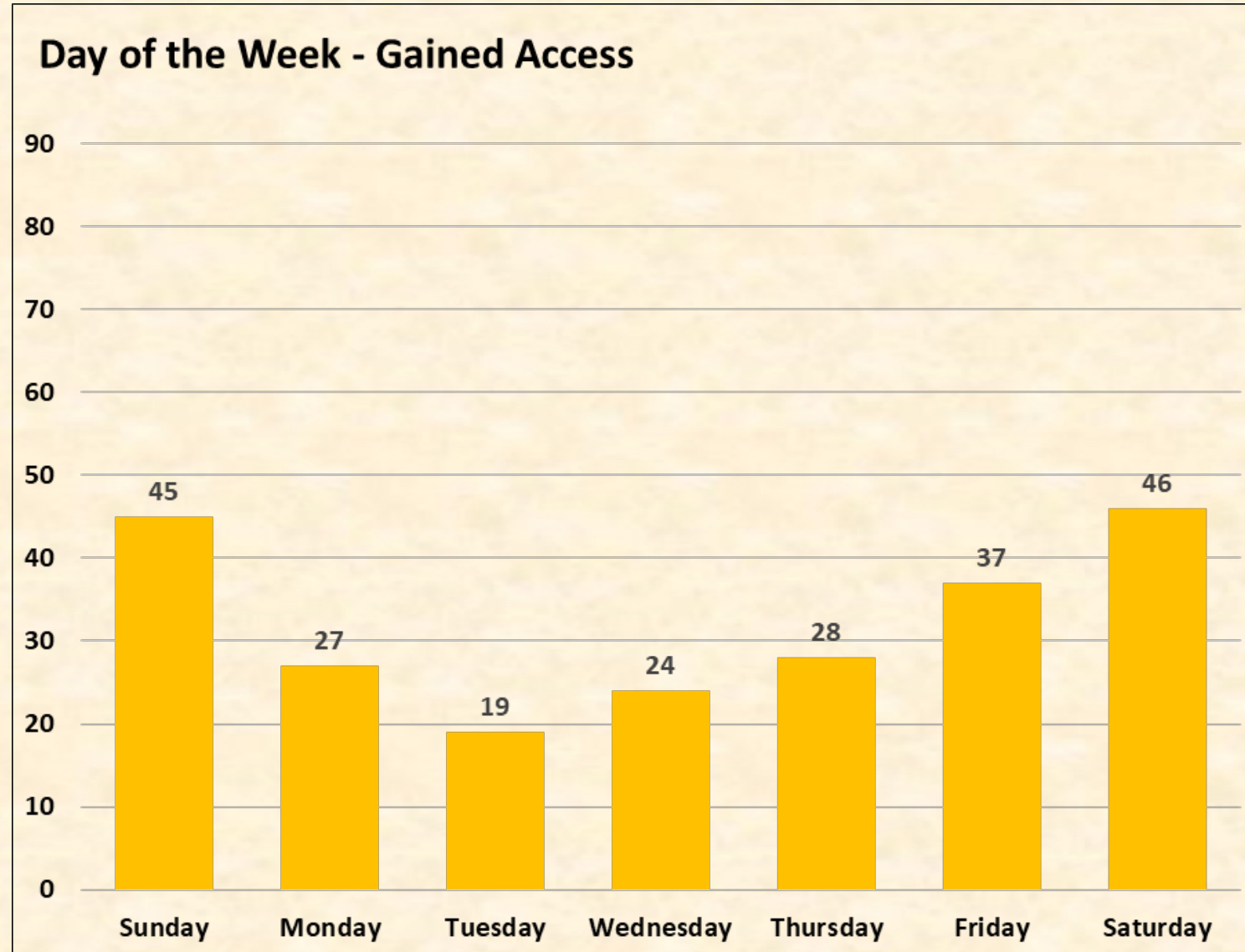


# Pediatric Vehicular Heatstroke Deaths

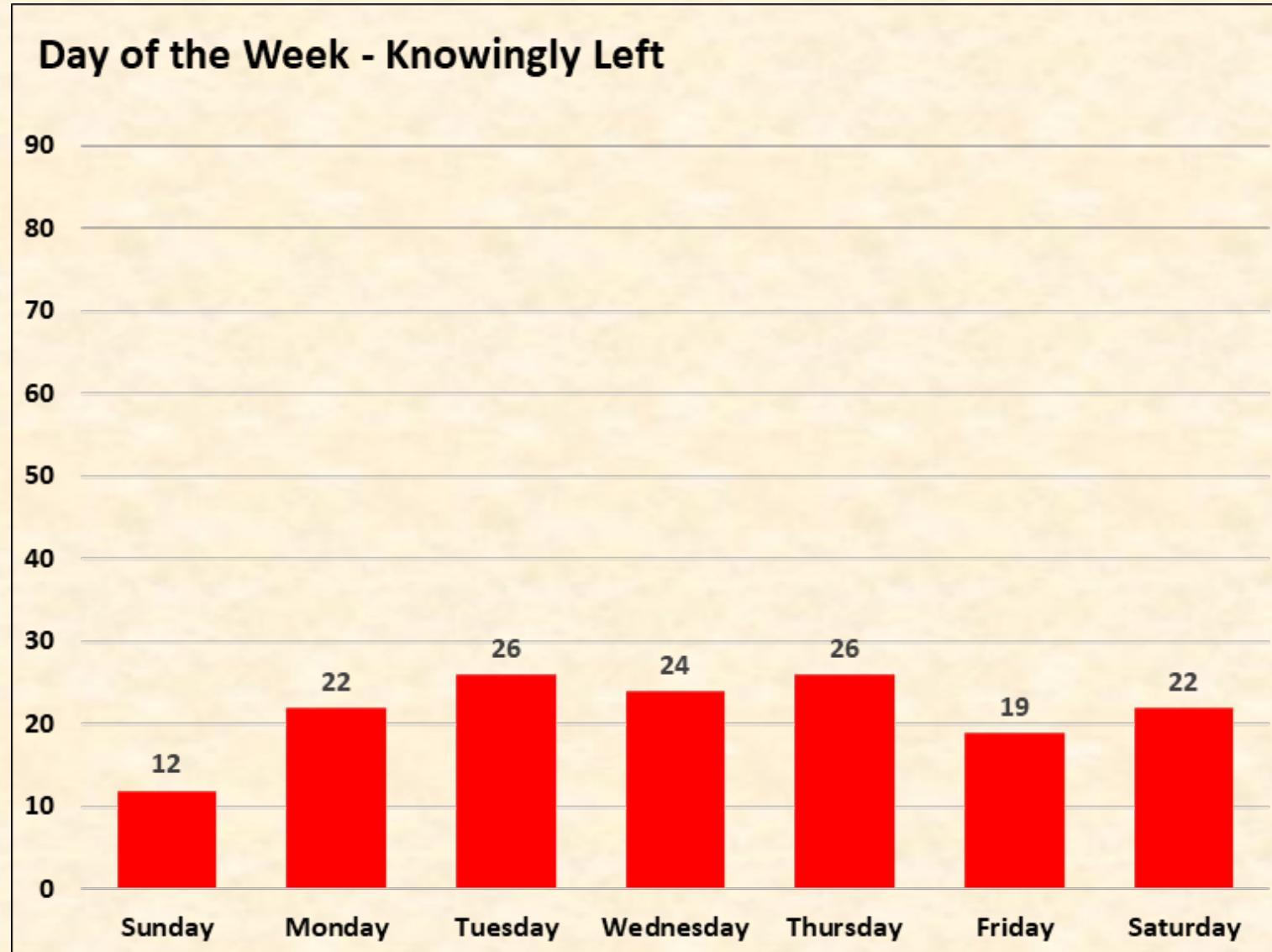




# Pediatric Vehicular Heatstroke Deaths

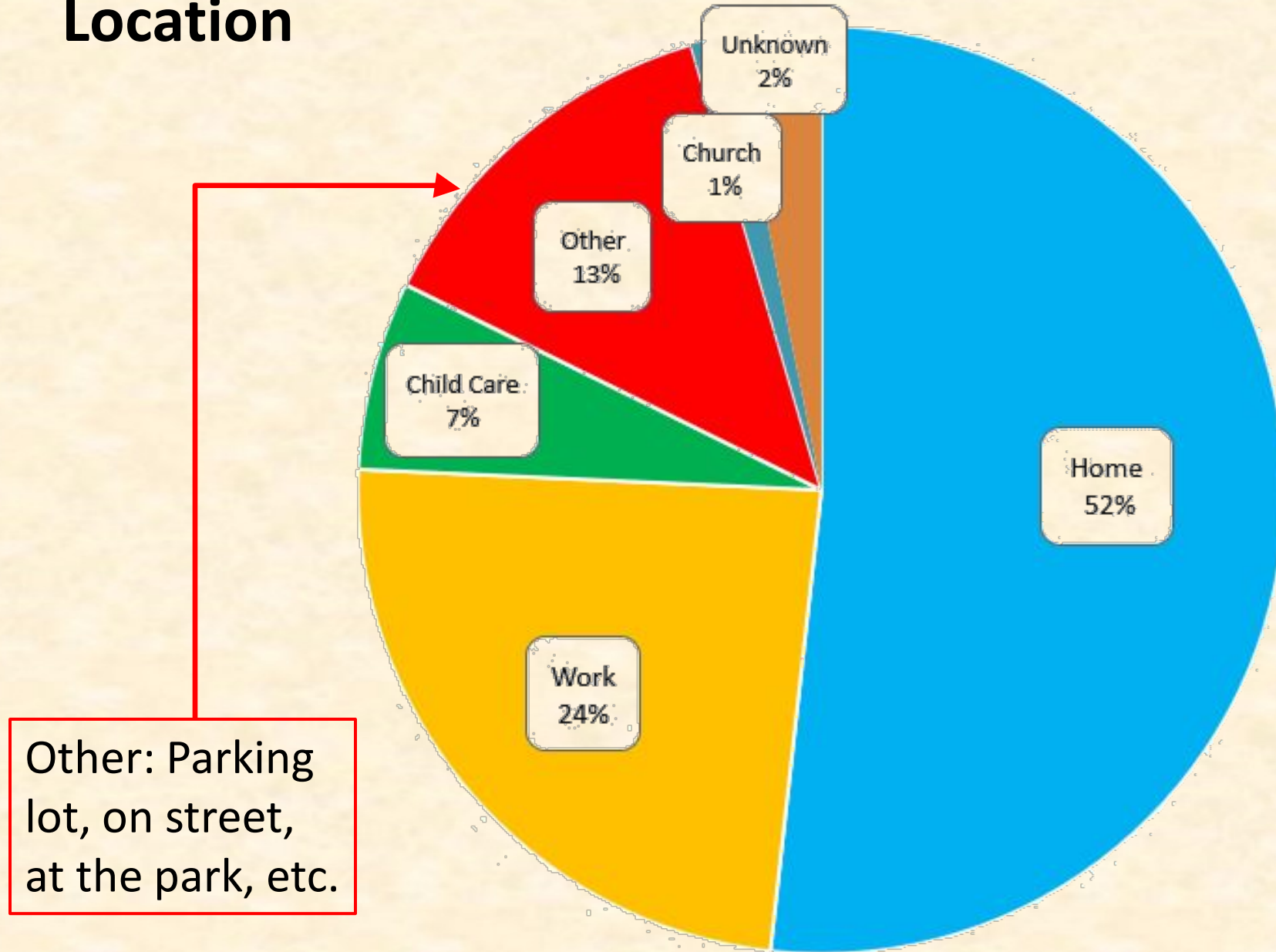


# Pediatric Vehicular Heatstroke Deaths



# Pediatric Vehicular Heatstroke Deaths

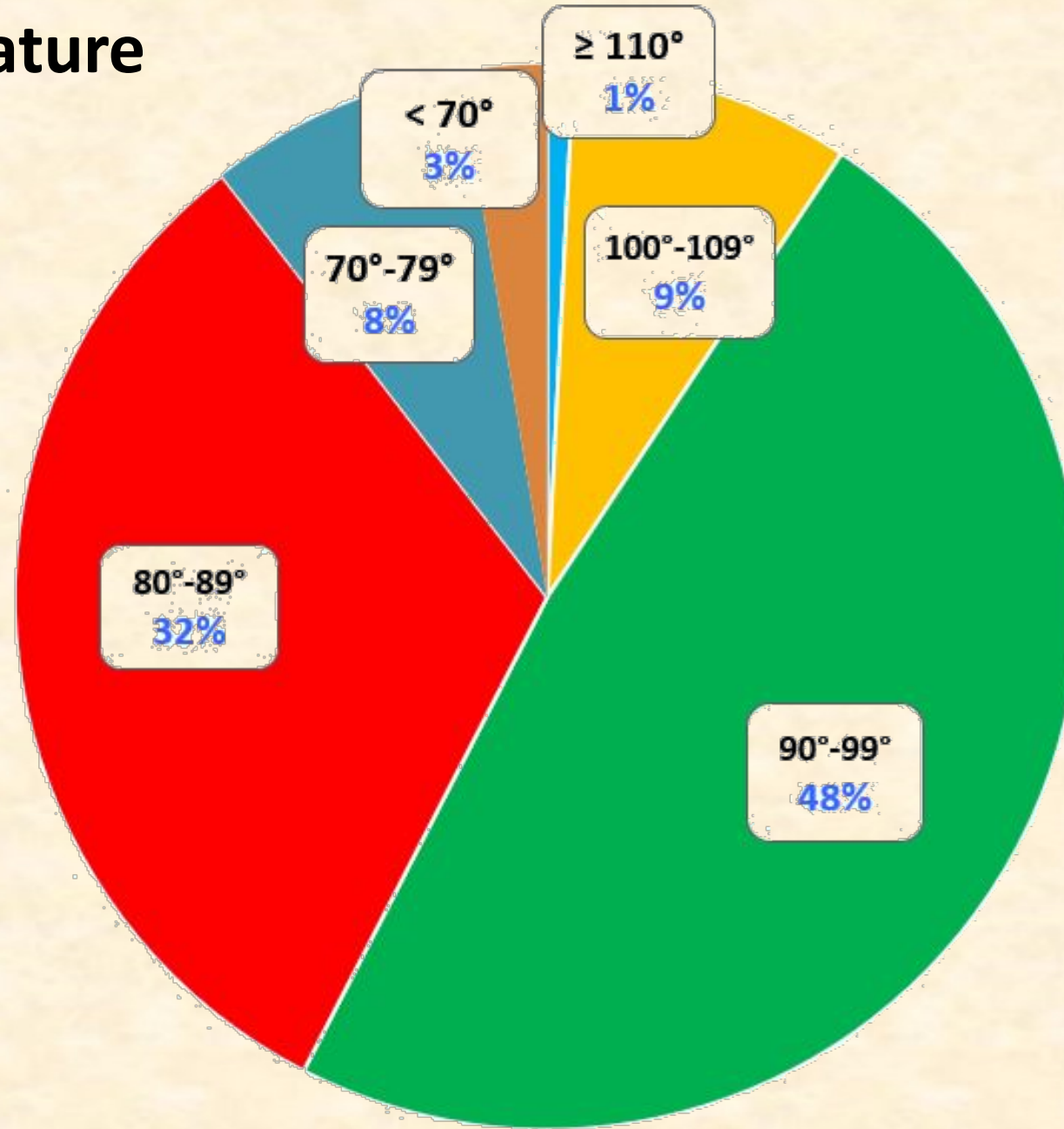
## Location





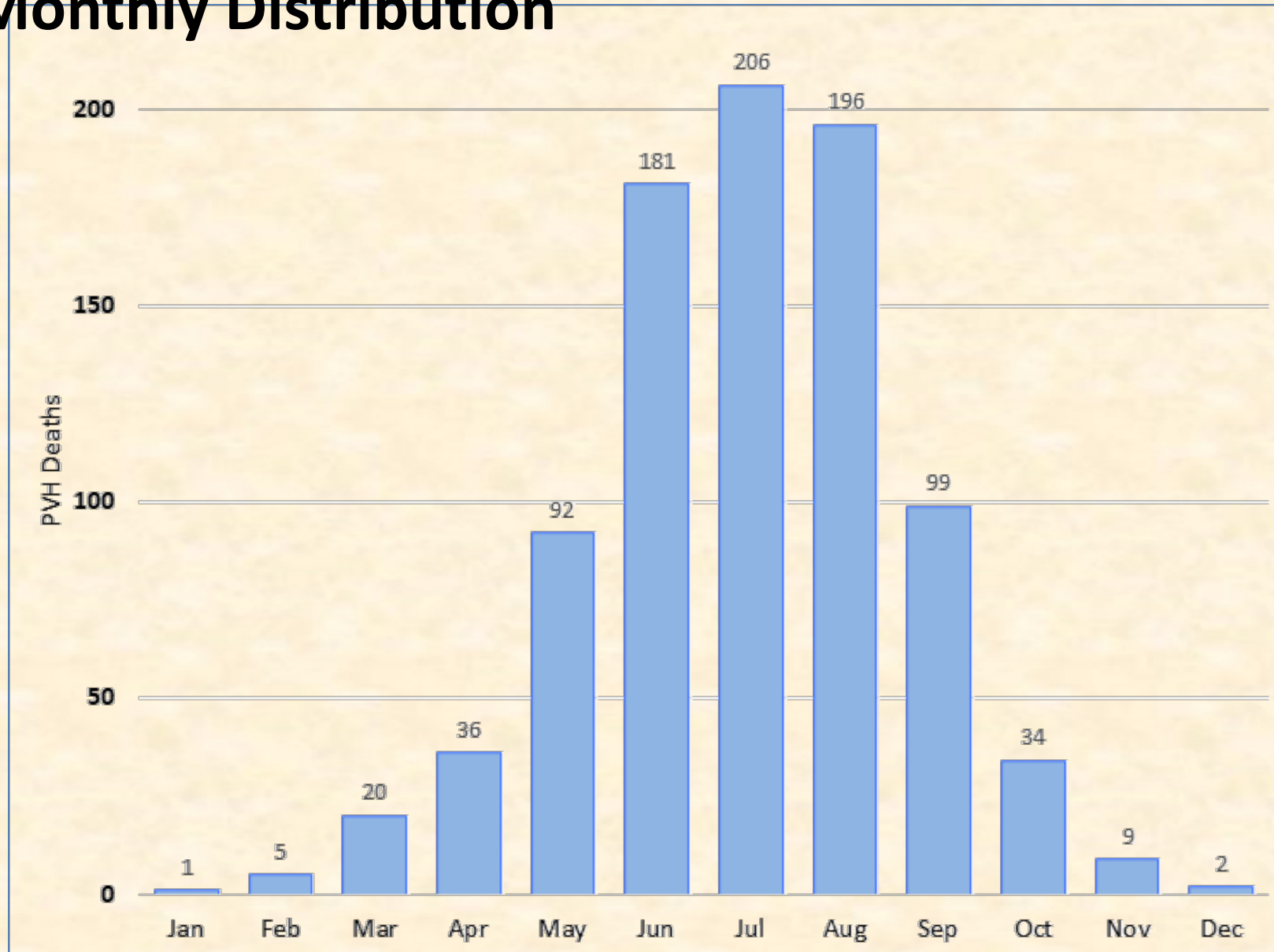
# Pediatric Vehicular Heatstroke Deaths

## Temperature



# Pediatric Vehicular Heatstroke Deaths

## Monthly Distribution



# Child Vehicular Heatstroke Deaths

	Monthly Totals													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	Total
1998				2	4	9	10	11	3				1	40
1999			1	1	2	8	16	4	1					33
2000			1		8	6	7	10	3	1				36
2001			2	1	4	8	10	10	2	1	1			39
2002			1		1	7	9	7	4	2				31
2003				2	4	10	10	12	2	3				43
2004		1	2	5	4	4	9	7	6	1				39
2005					3	9	12	11	10	2				47
2006				2	2	6	7	10			3			30
2007			2		3	6	9	7	8	1				36
2008		1	2	2	2	6	11	12	3	4				43
2009			1	2	3	11	7	6	2			1		33
2010			1	3	6	10	8	15	7	1				51
2011			2		6	10	8	3	3	2				34
2012					4	6	6	12	2		3	1		34
2013					8	9	9	8	9	1				44
2014				4	4	8	7	3	2	3				31
2015				1	1	6	3	8	5		1			25
2016	1		1	3	4	7	9	4	6	4				39
2017		2	2	3	3	10	13	7	2	2				44
2018		1	2	1	8	12	10	9	9				1	53
2019				3	7	8	8	14	7	5	1			53
2020				1	1	4	8	6	3	1				24
											Total 1998-2020 >			882
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	Total
<b>Avg.</b>	< 1	< 1	2	2	4	8	9	9	5	2	< 1	< 1	< 1	38
<b>Max.</b>	1	2	2	5	8	12	16	15	10	5	3	1	1	53
<b>Min.</b>	0	0	0	0	1	4	3	3	1	0	0	0	0	24



# Pediatric Vehicular Heatstroke Deaths

## Date of 1<sup>st</sup> Fatality

Date & Location of 1st Death		
Year	Date	State
1998	24-Apr	AR
1999	16-Mar	OH
2000	6-Mar	FL
2001	21-Mar	TX
2002	14-Mar	OH
2003	6-Apr	FL
2004	5-Feb	HI
2005	13-May	NJ
2006	4-Apr	SC
2007	17-Mar	HI
2008	15-Feb	WI
2009	9-Mar	NC
2010	8-Mar	FL
2011	8-Mar	TX
2012	12-May	TX
2013	10-May	TX
2014	16-Apr	CA
2015	20-Apr	AZ
2016	12-Jan	GA
2017	6-Feb	FL
2018	28-Feb	FL
2019	4-Apr	FL
2020	25-Apr	TX
Average	22-Mar	

← Latest

← Earliest

# Heatstroke



# What is Heatstroke?

- Hyperthermia
  - Elevated body temperature
- Heatstroke
  - Clinical definition  $\geq 104^{\circ}\text{F}$
  - Cooling system is overwhelmed
    - Symptoms
      - Stops perspiring, flushed dry skin
      - Faintness
      - Staggering
      - Strong and rapid pulse
      - Possible delirium or coma



# What is Heatstroke?

- Child's body less capable of cooling itself
  - Less surface area to mass
  - Child's body temperature rises 3 to 5 times faster than an adult's
  - Exacerbated by position in carseat
- $\geq 107^{\circ}\text{F}$ 
  - Cells damaged
  - Organs shut down
  - Death can occur

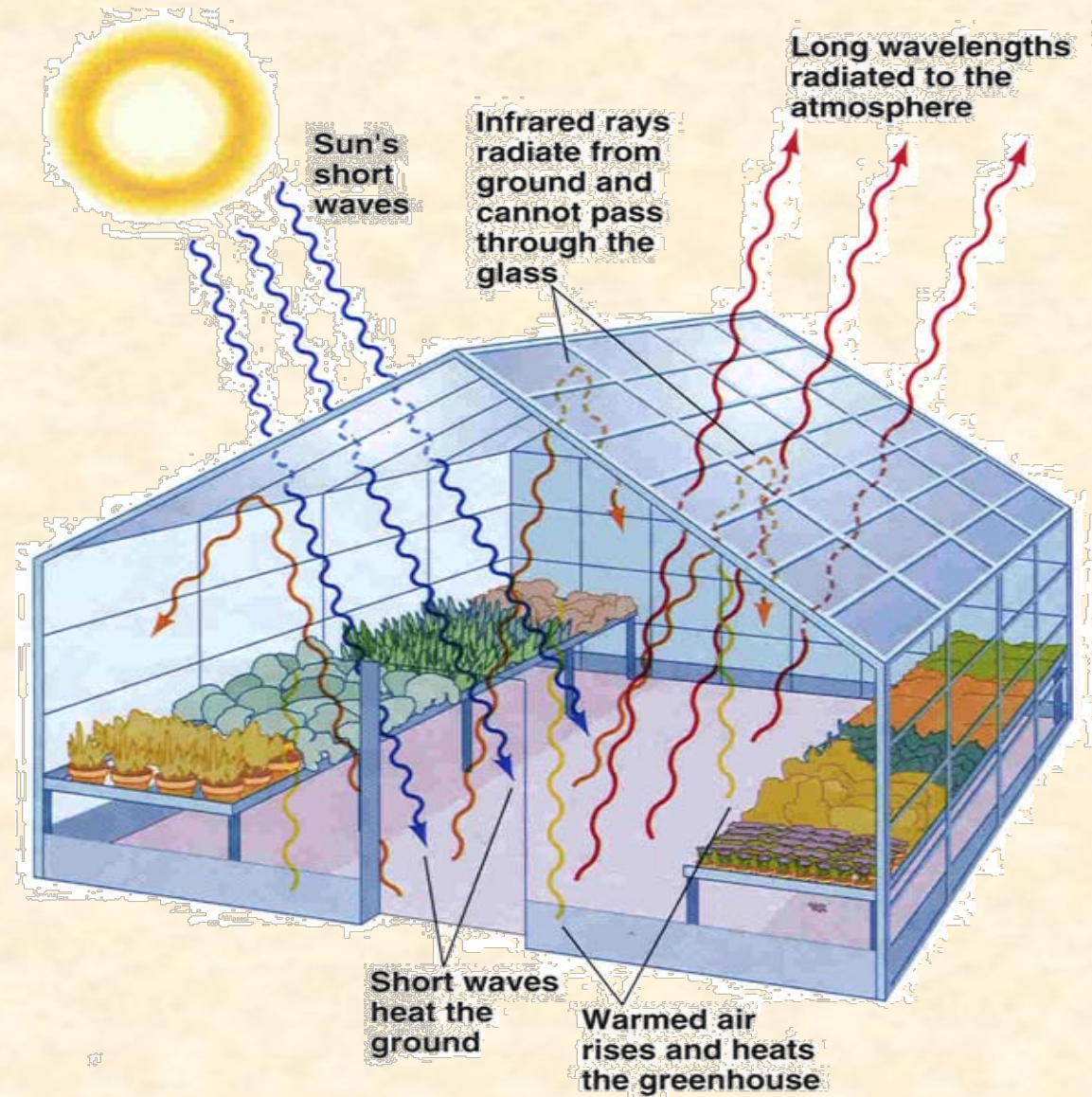
# Vehicle Heating

# How Hot? How Fast?

- Controlled study Summer 2002
- Remote thermometer in vehicle
- 16 study days
  - Outside air temperatures from 72 ° - 96° F
  - 0 to 60 minutes
- Two days, windows “cracked” 1.5 inches

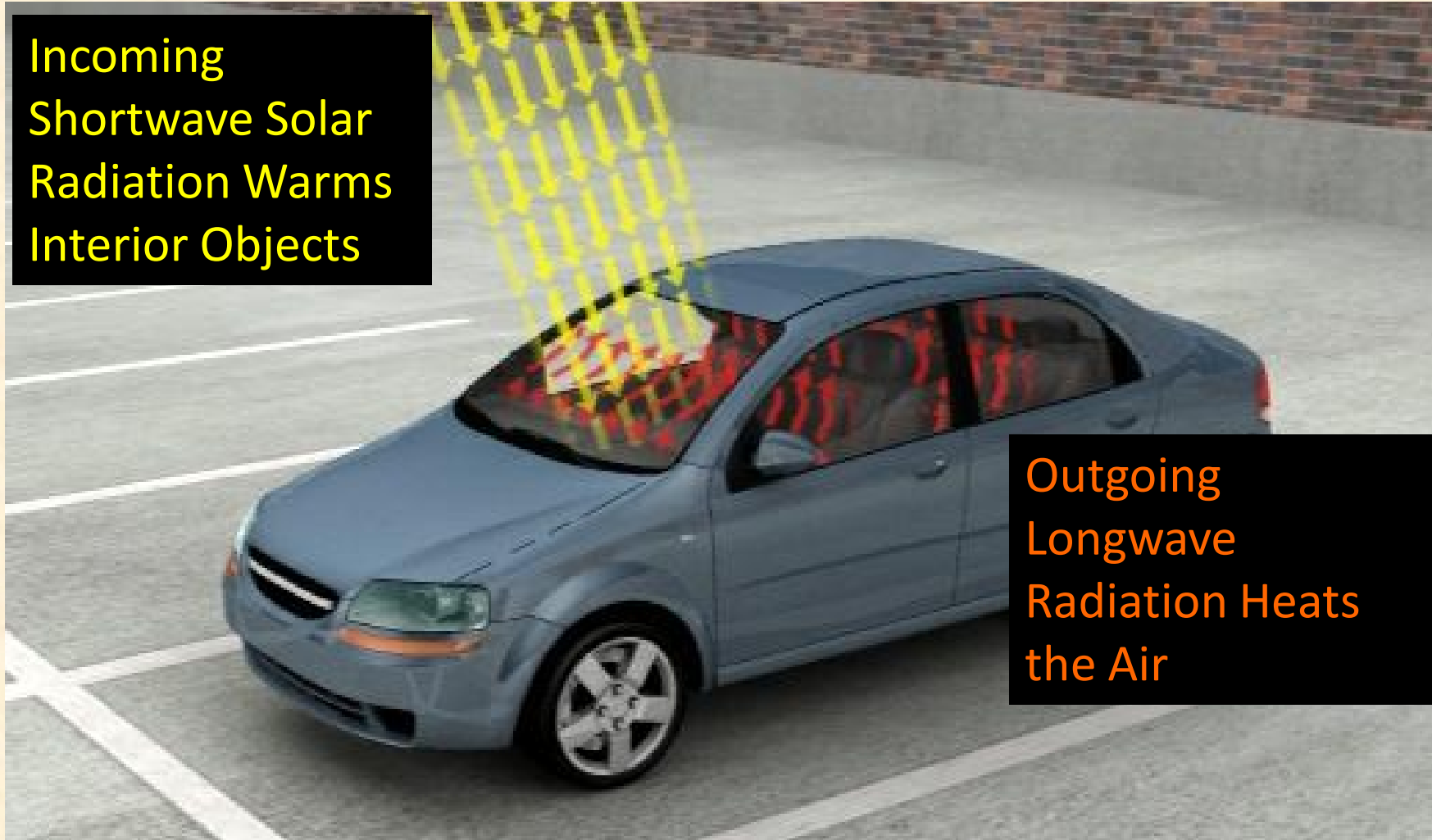


# How Do Cars Get Hot?



**Air and Windows are Transparent to Sunlight**

# How Do Cars Get Hot?



**Air and Windows are Transparent to Sunlight**



# Surface Temperatures

- IR Thermometer
  - Surface Temperatures





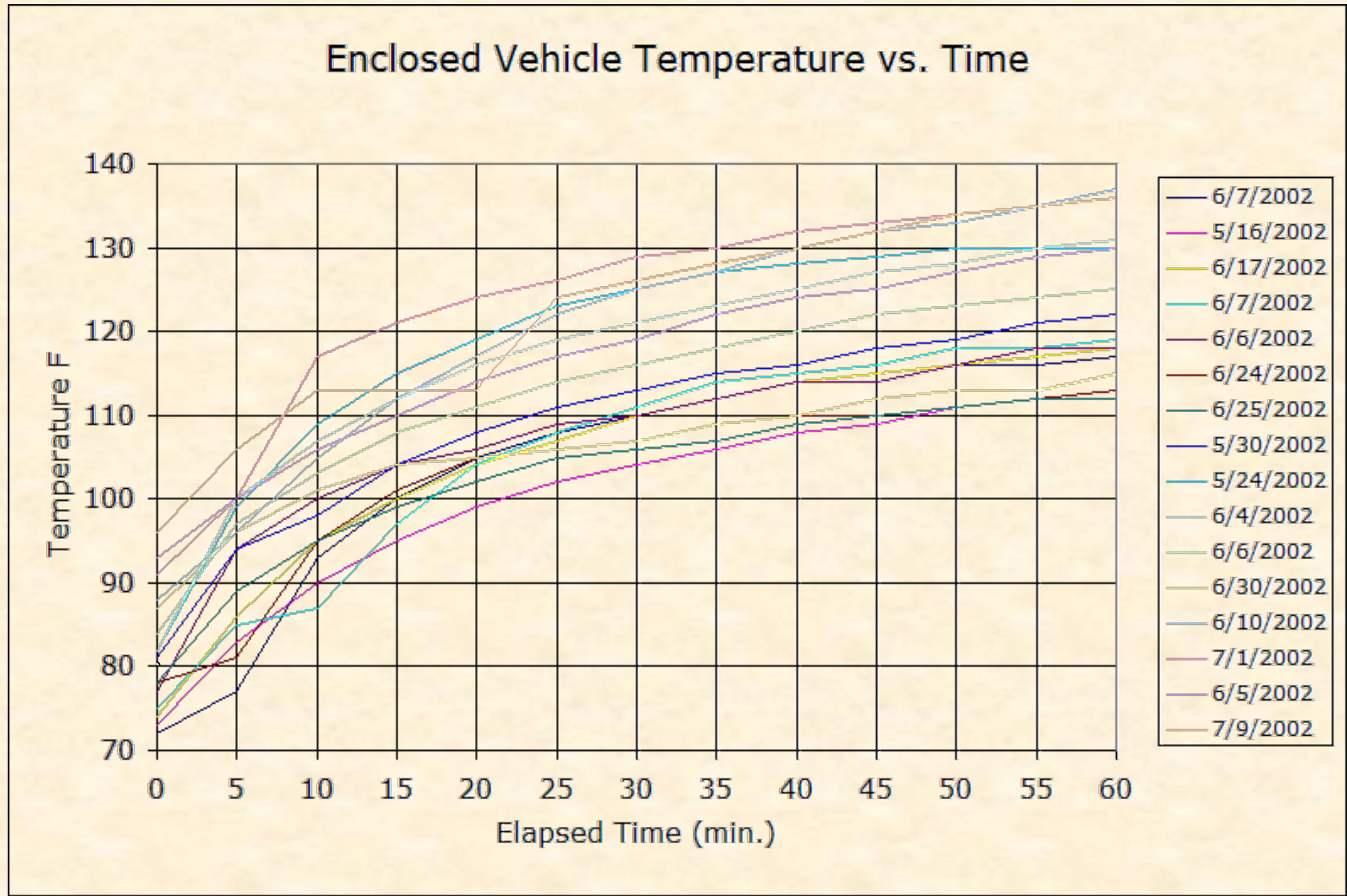
# How Hot?

Ambient Temp: 95°





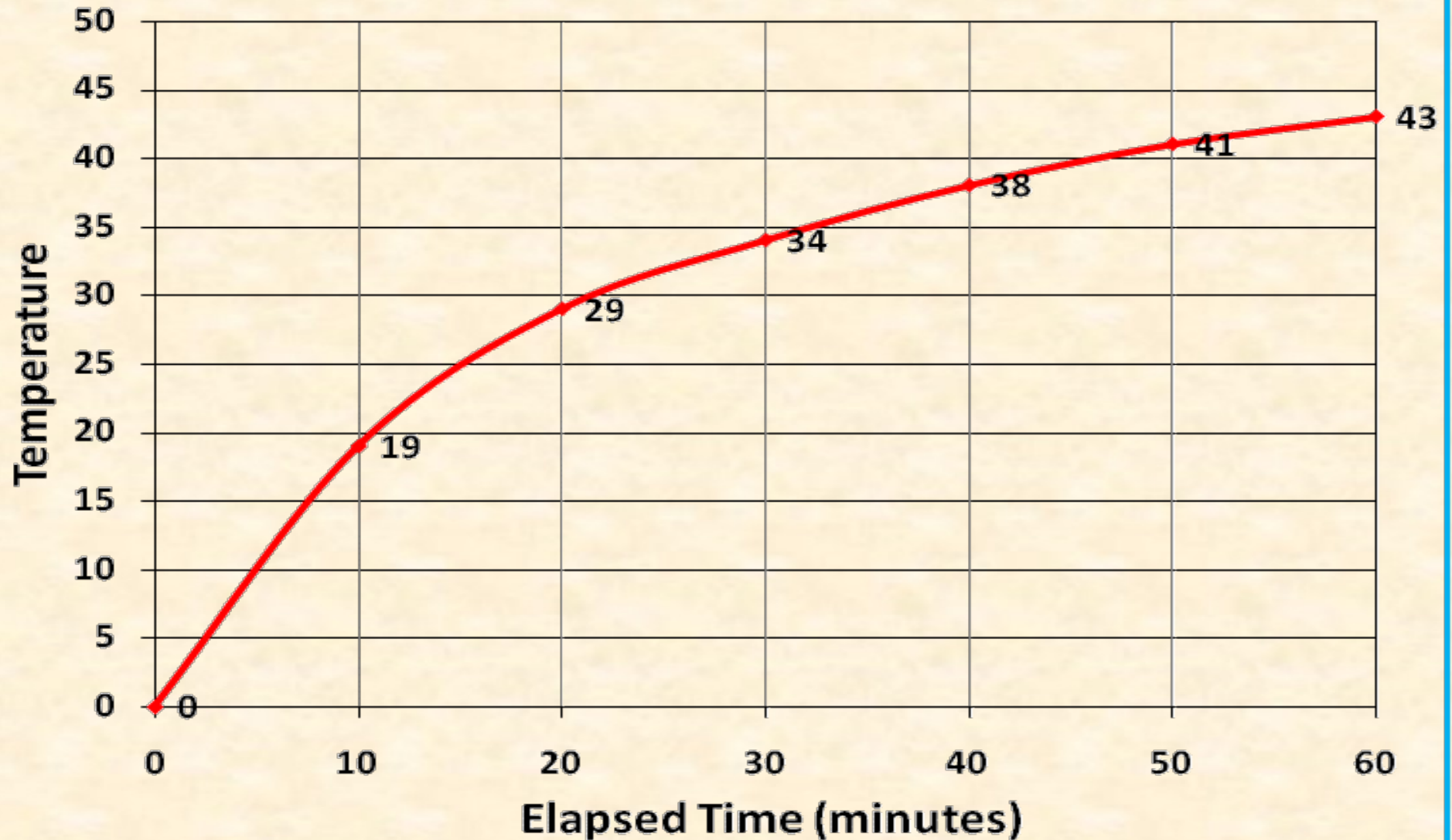
# How Hot? How Fast?



# How Hot? How Fast?

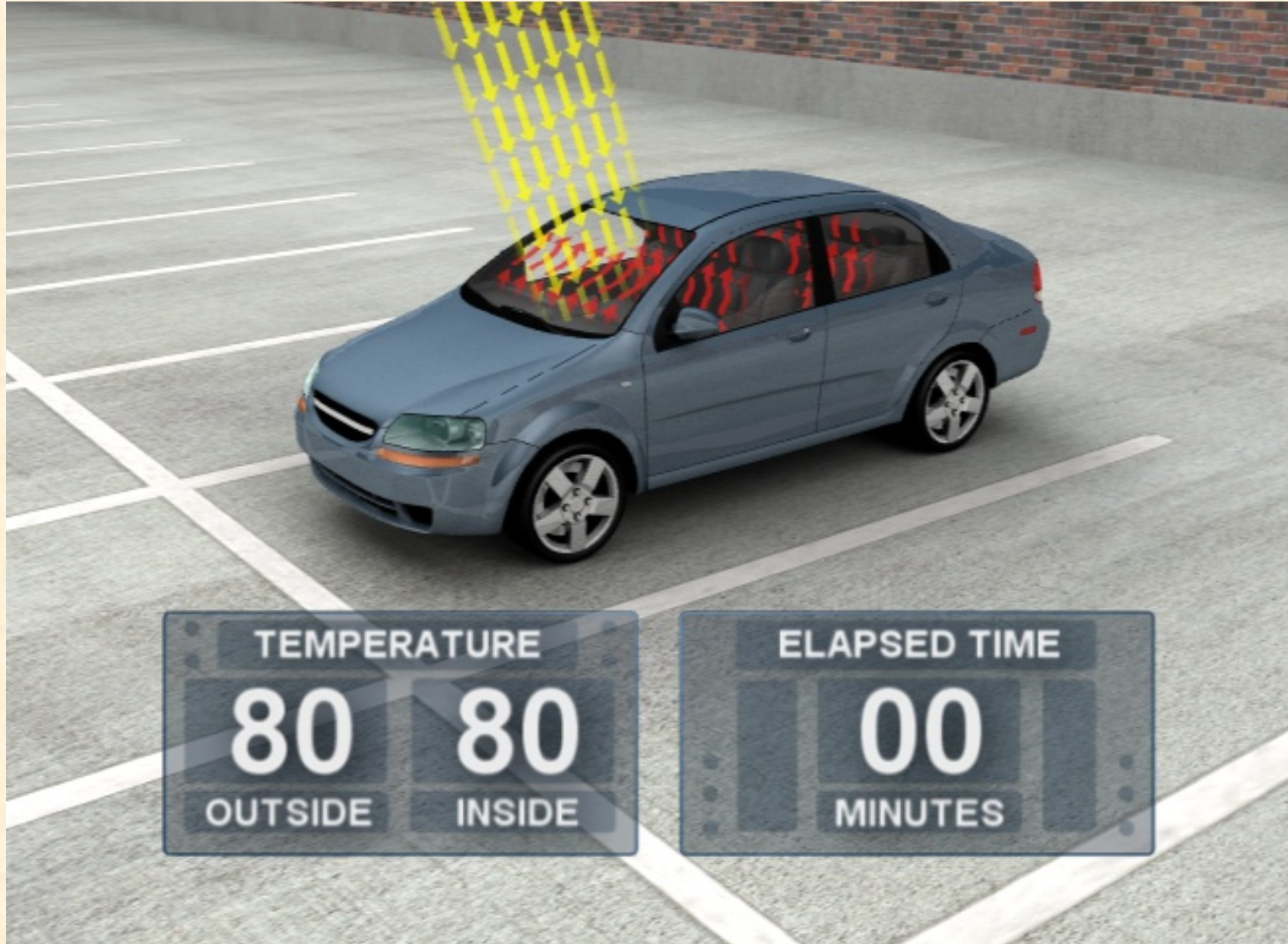
## Average Temperature Rise

Enclosed Vehicle - Ambient temperatures 72 to 96 deg F



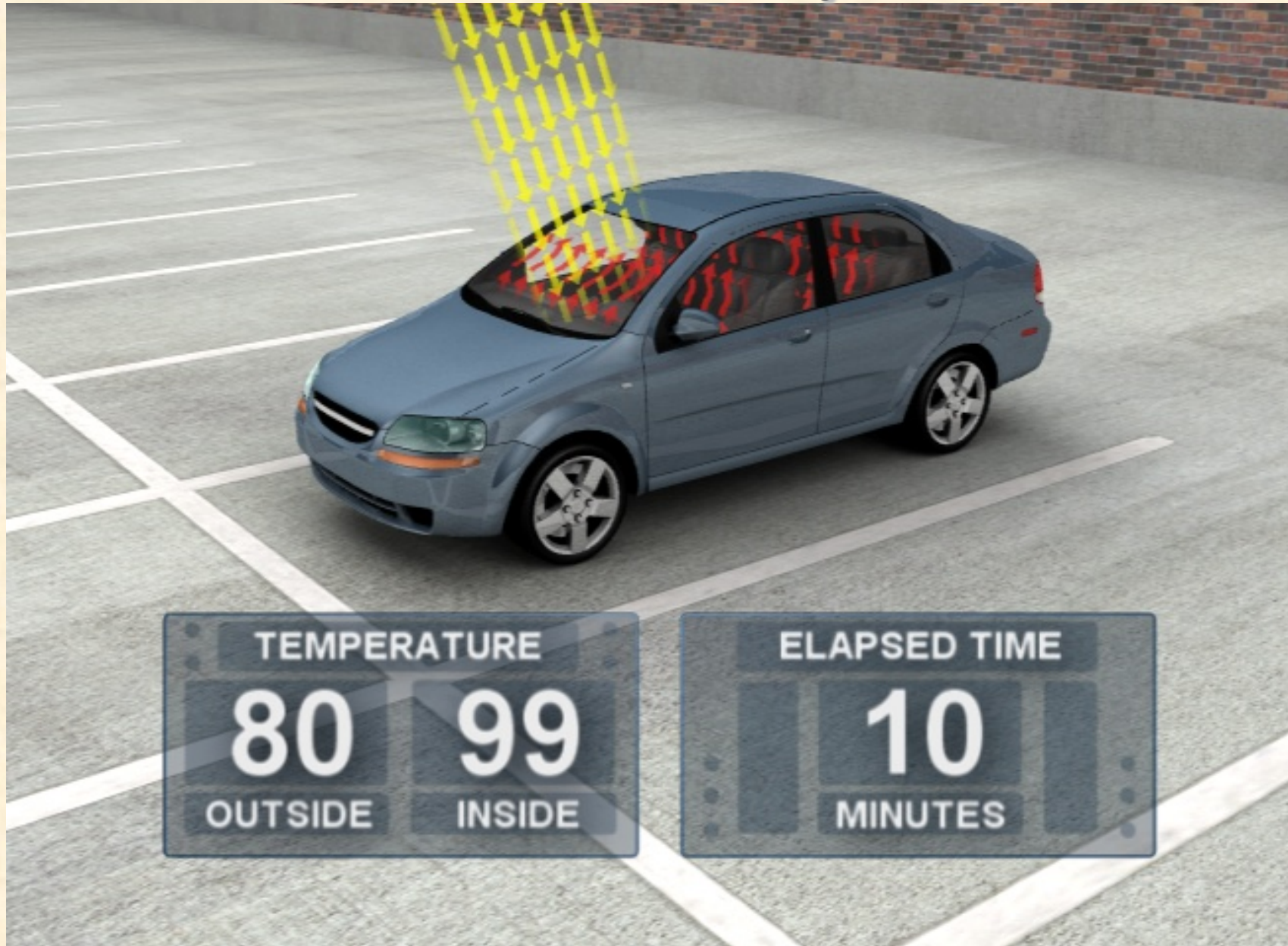


# An 80° Day



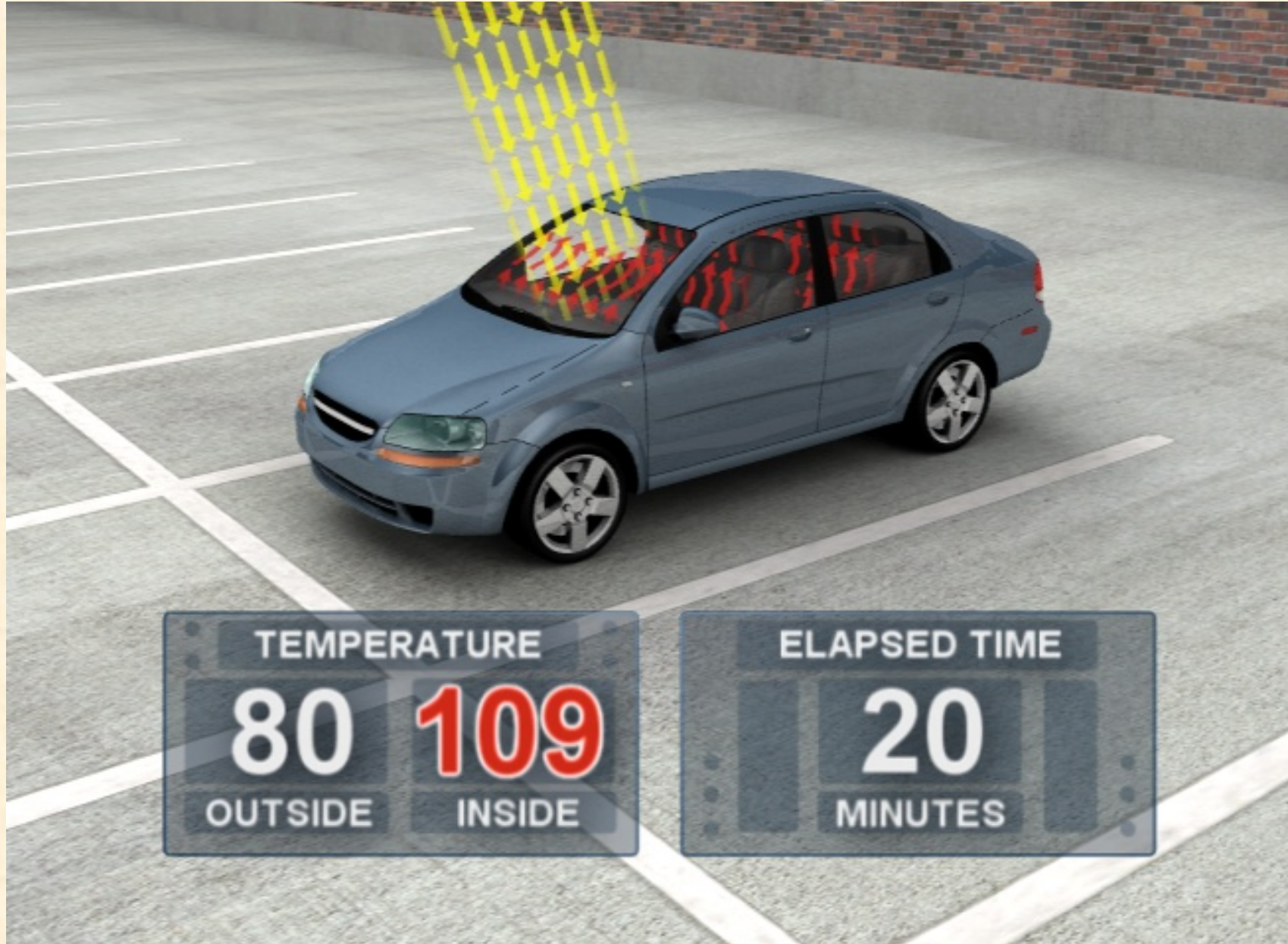


# An 80° Day



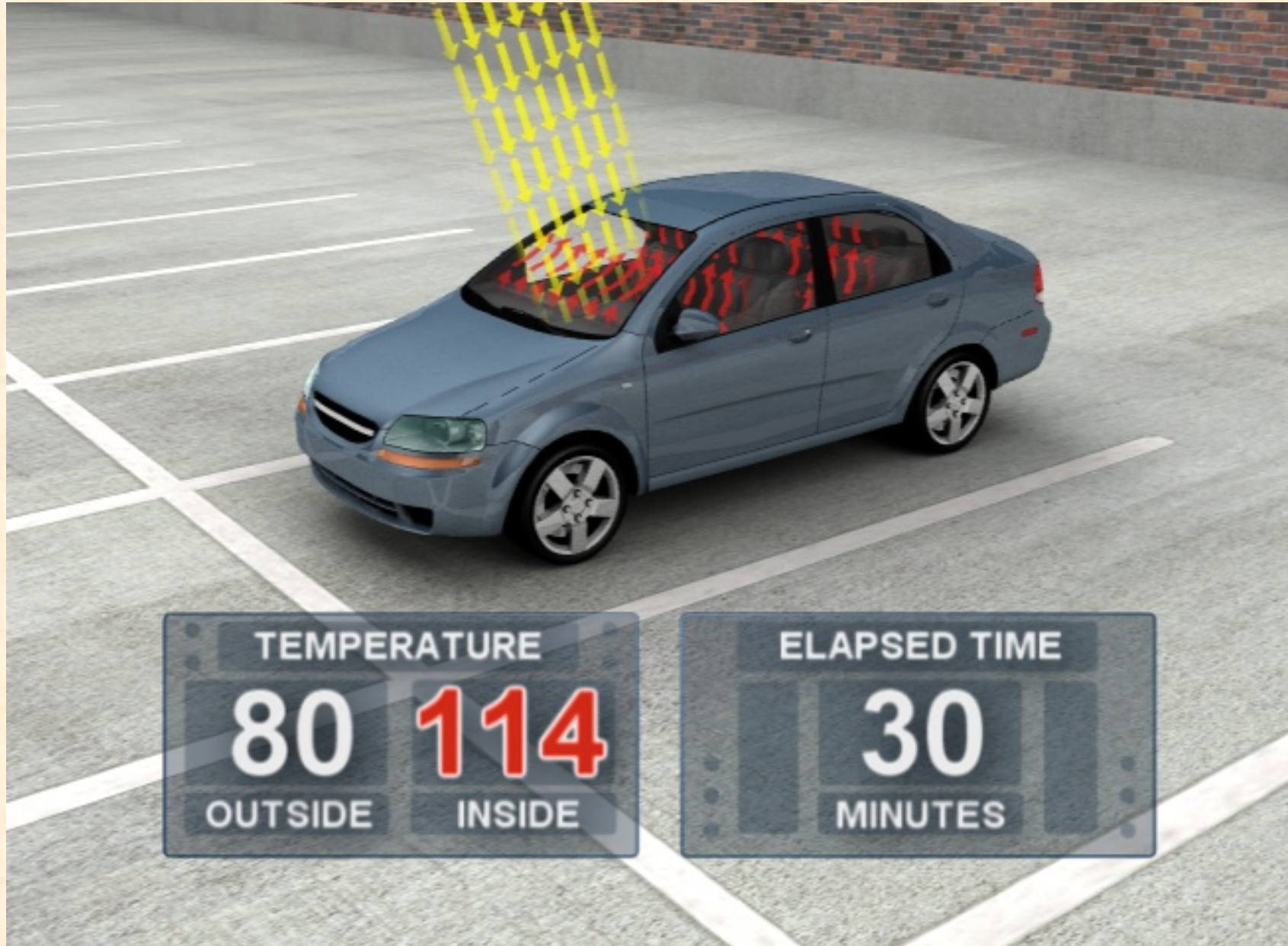


# An 80° Day



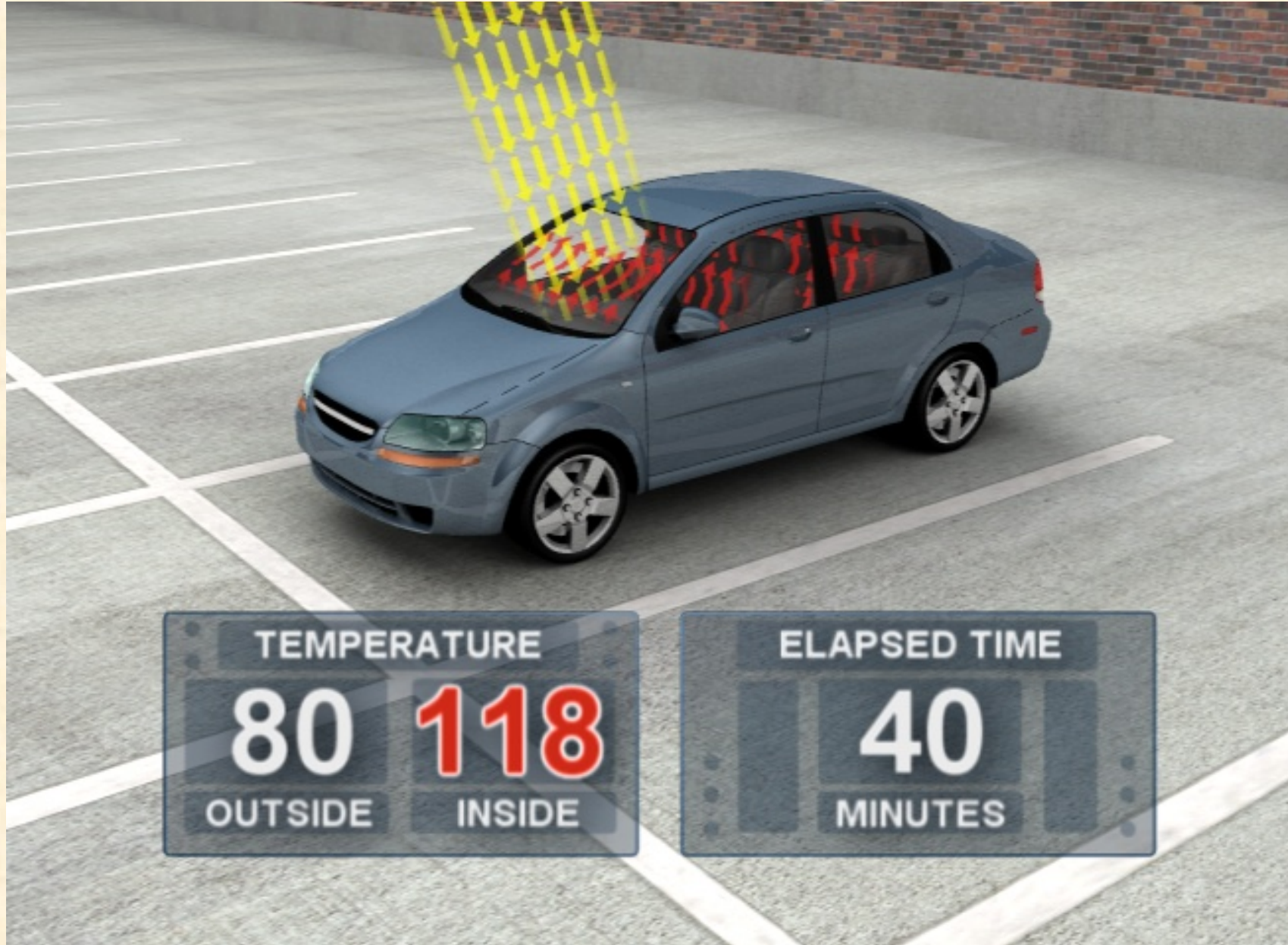


# An 80° Day



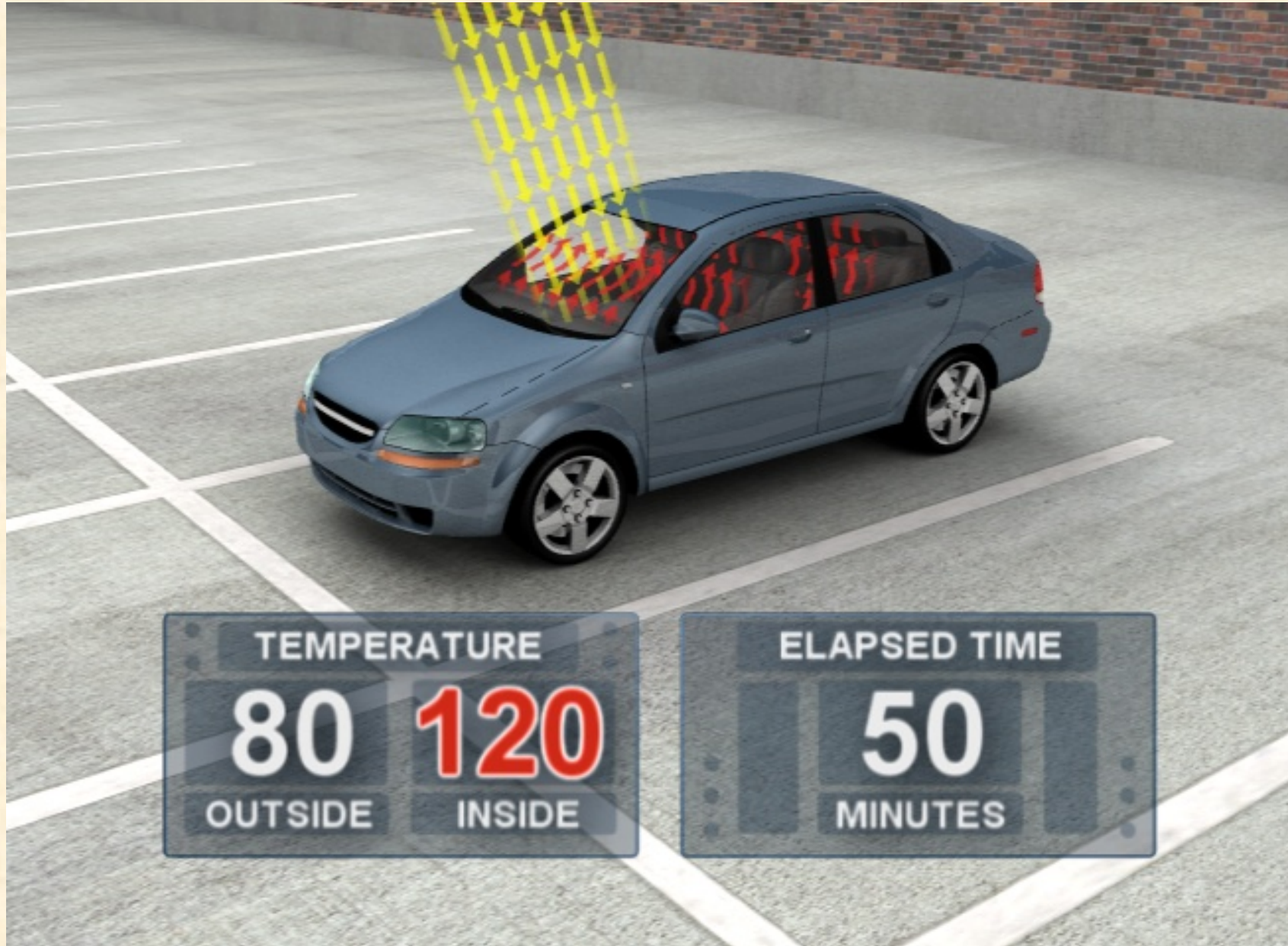


# An 80° Day



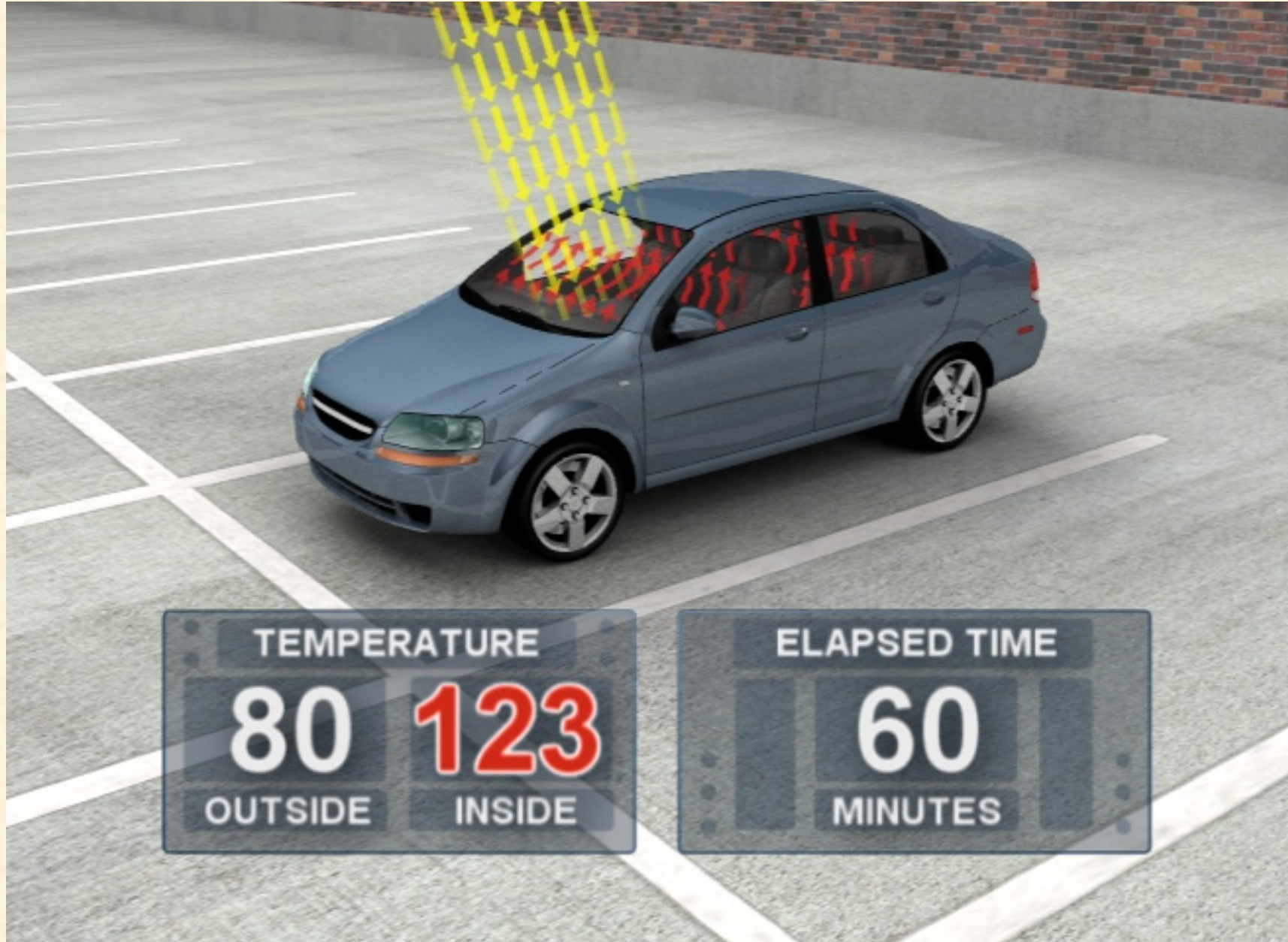


# An 80° Day





# An 80° Day



# How Hot? How Fast?

## Estimated Vehicle Interior Air Temperature v. Elapsed Time

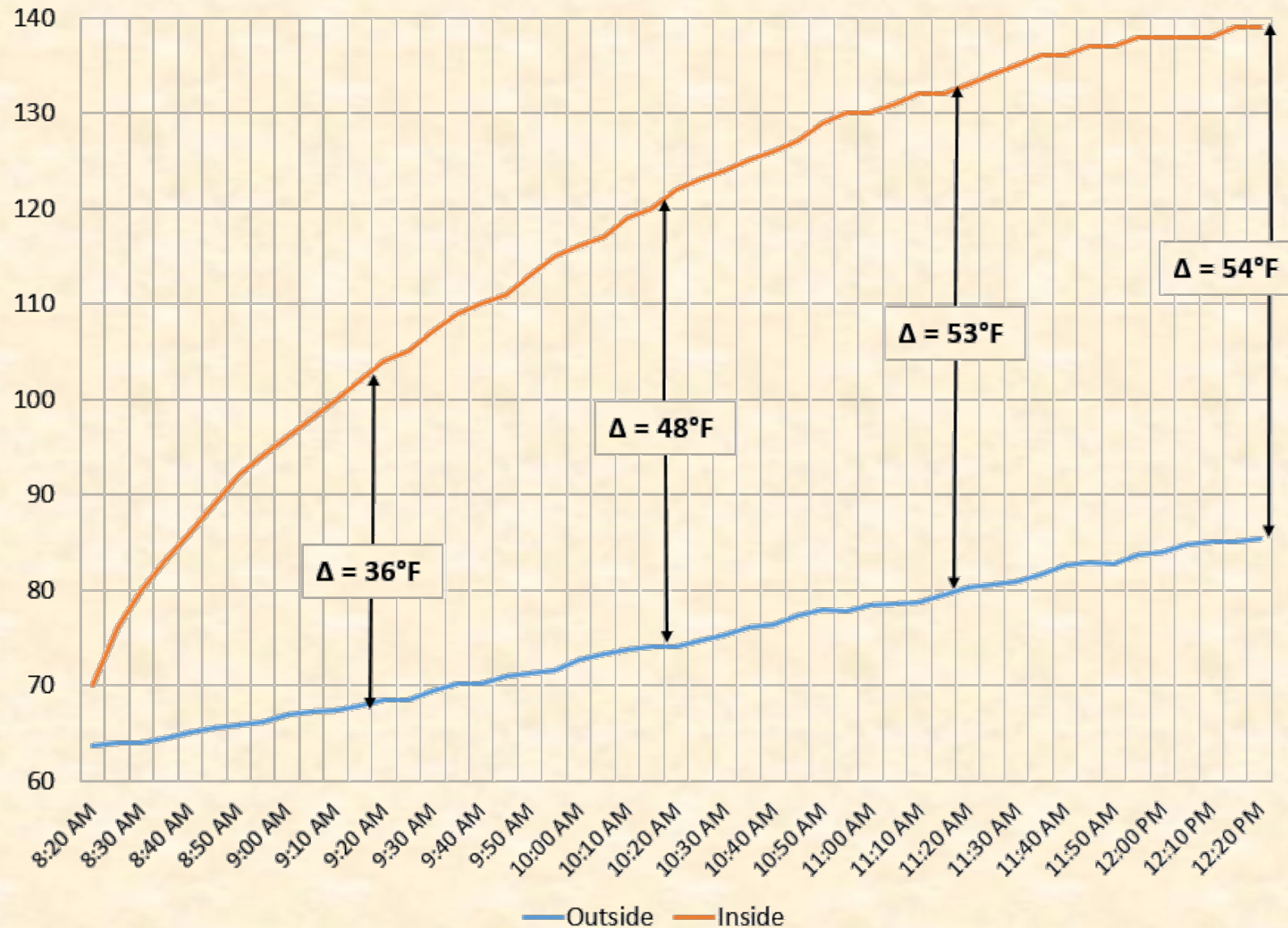
Elapsed Time	Outside Air Temperature (F)								
	70	75	80	85	90	95	100	105	110
0 minutes	70	75	80	85	90	95	100	105	110
10 minutes	89	94	99	104	109	114	119	124	129
20 minutes	99	104	109	114	119	124	129	134	139
30 minutes	104	109	114	119	124	129	134	139	144
40 minutes	108	113	118	123	128	133	138	143	148
50 minutes	111	116	121	126	131	136	141	146	151
60 minutes	113	118	123	128	133	138	143	148	153
> 1 hour	115	120	125	130	135	140	145	150	155

← Published data → Anecdotal extrapolated data



# How Hot? How Fast?

## 4-Hour Vehicle Heating





# Vehicle Heating Summary

- Nearly half of temperature rise in 10 minutes
- 80% in first 30 minutes
- Temperatures “plateau” ~45-55° above ambient
- “Cracking” windows has minimal effect
- It does NOT have to be a “hot” day!
- Dark cars NOT necessarily worse than white cars
- Published: *Pediatrics*, 2005
- Updated at: <http://noheatstroke.org>

# Tracking Cases



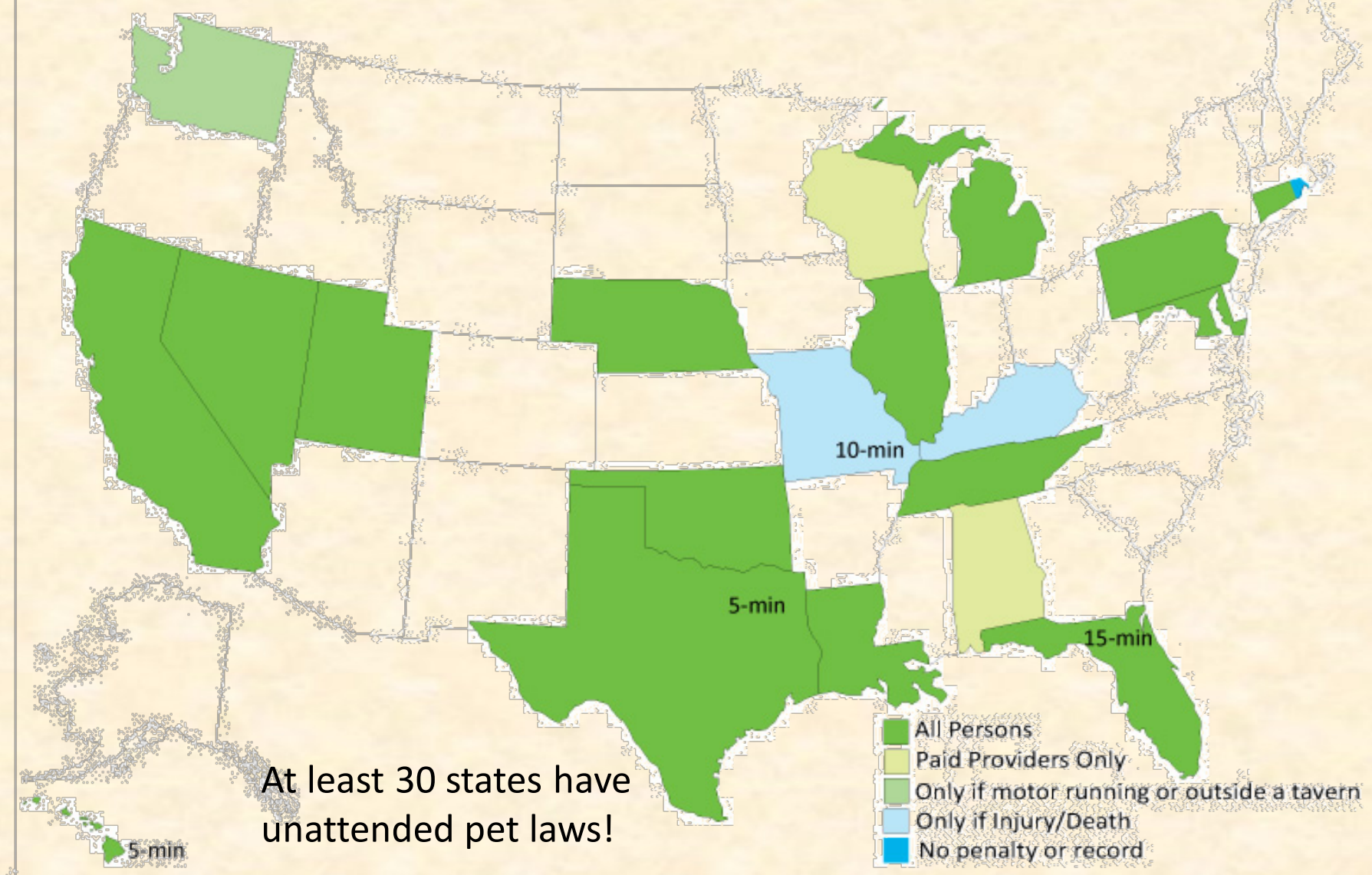
# Methodology

- Electronic Media Reports
  - ~ 20 Google News searches
  - Contacts from media, authorities, etc.
- Death Certificate average only 50%
  - NHTSA report 2005-2007 = 19 per year
  - Improper or incomplete ICD codes
- **If you know of cases let me know!**

# **Legal Miscellany**

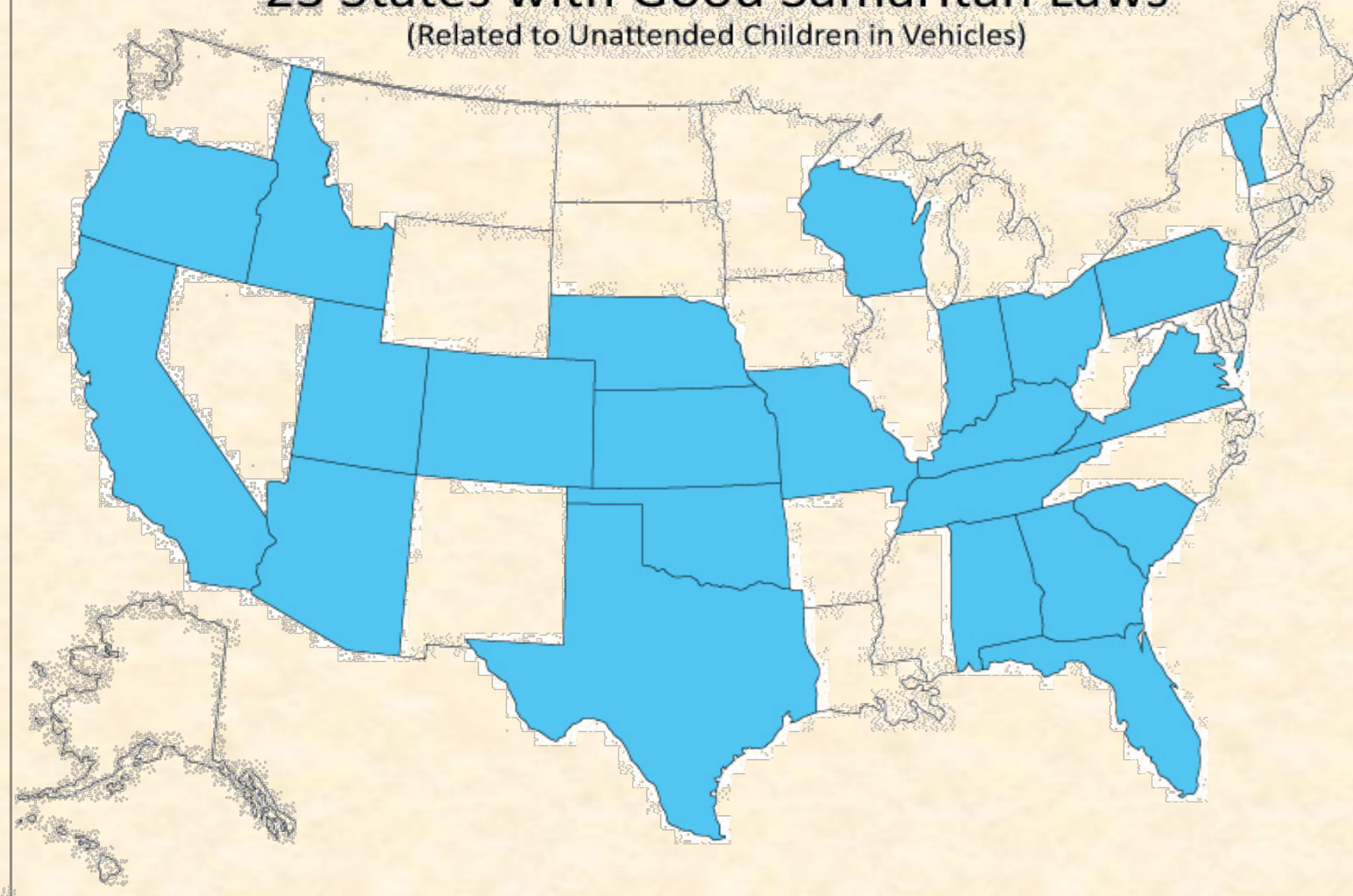


## 21 States with Unattended Child in Vehicle Laws



# 23 States with Good Samaritan Laws

(Related to Unattended Children in Vehicles)

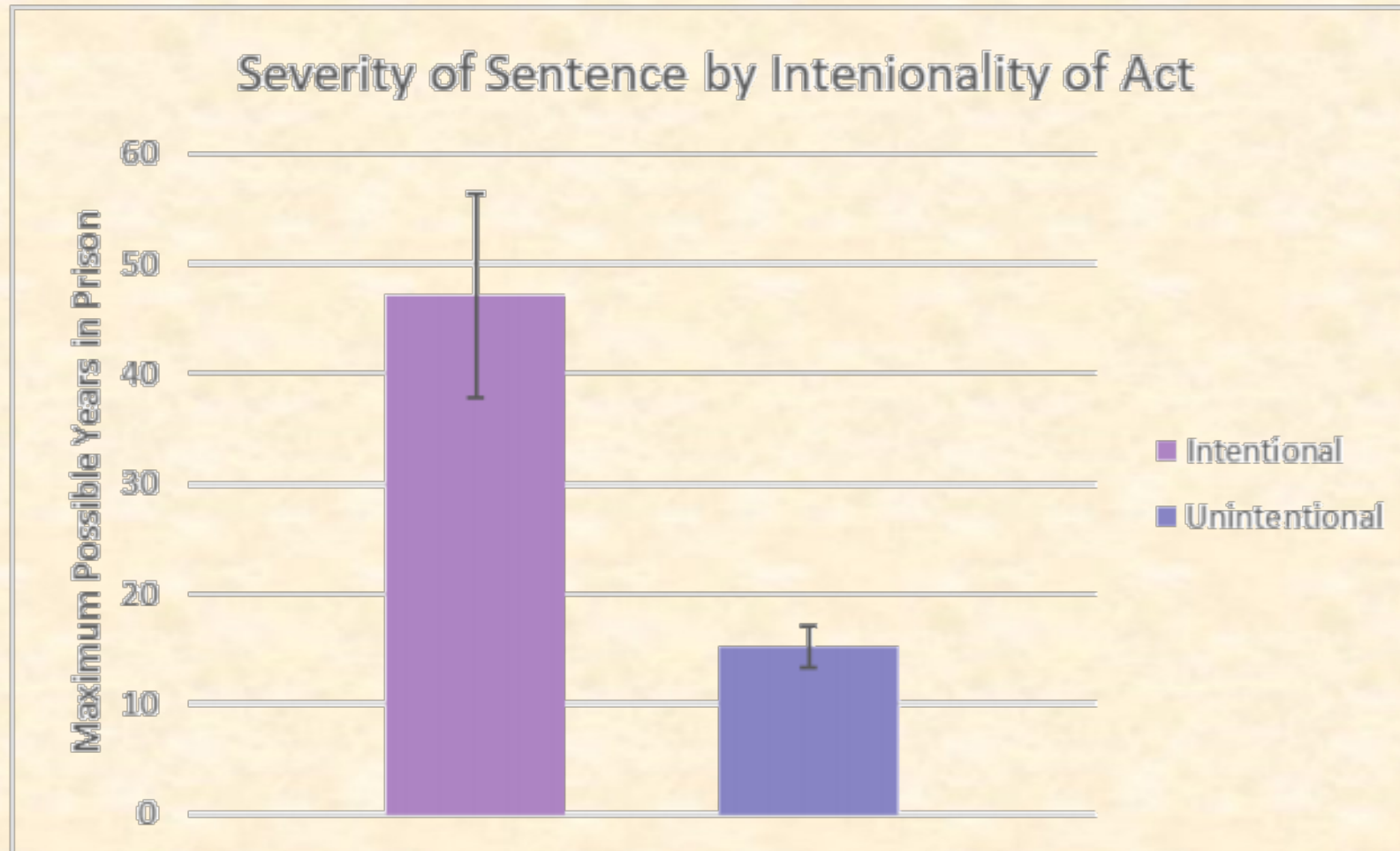




# Sentencing Studies

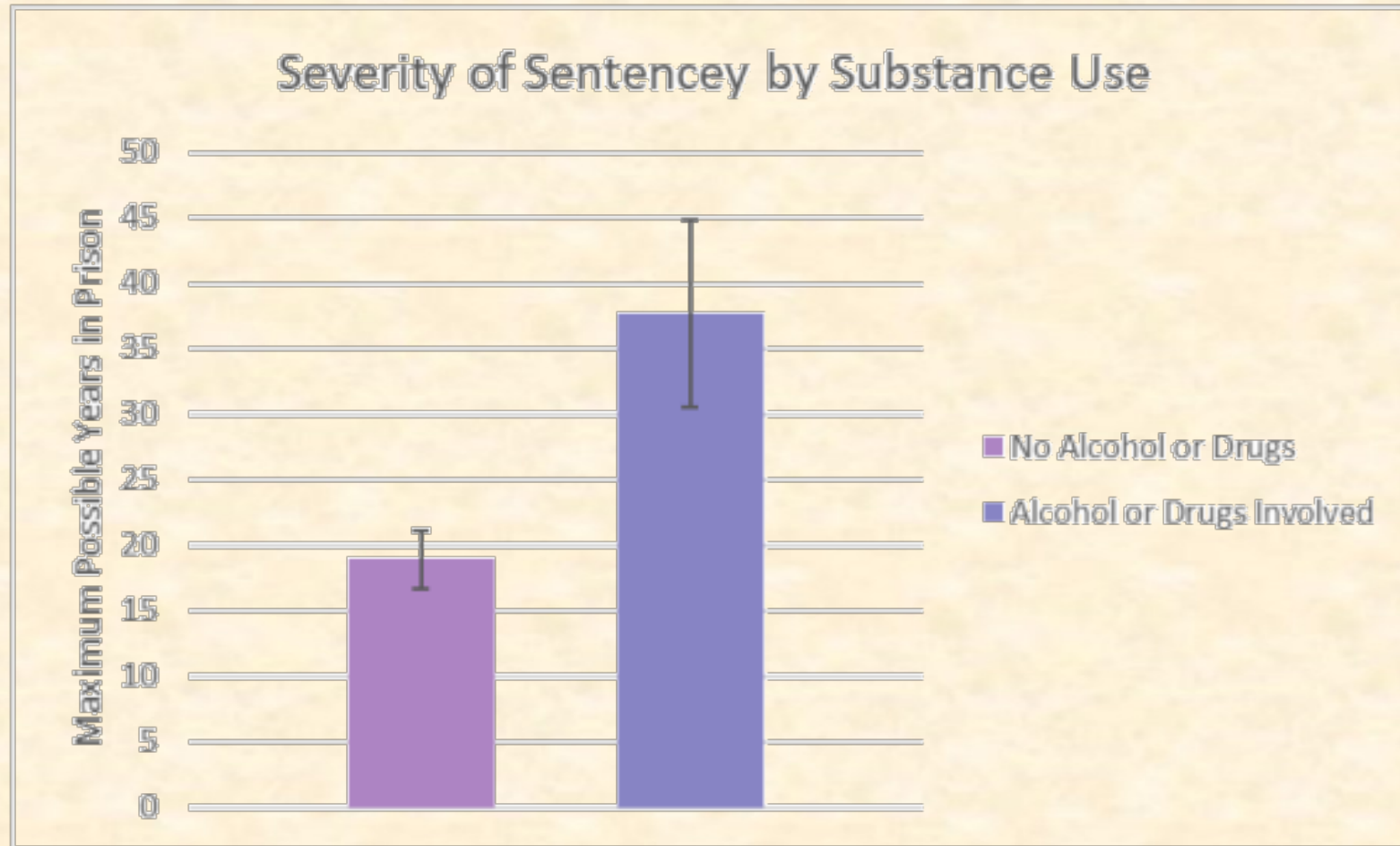
- Mothers and fathers charged at similar rates
  - Mothers sentenced more harshly
    - 26% more likely to do time
    - ~ 2 years longer sentences
- 2019 Study: 44% of “Forgotten” charged, 77% of “Knowingly Left” charged
- Paid caregivers more likely to be charged and convicted
  - 84% charged, 96% sentenced
  - Jailed less frequently
  - 50% lighter sentences

# Case Examination of Factors Impacting Charges in Cases Involving Children Left in Hot Cars





# Case Examination of Factors Impacting Charges in Cases Involving Children Left in Hot Cars



# Case Examination of Factors Impacting Charges in Cases Involving Children Left in Hot Cars

*Table 1: Severity of Actual Sentence Given to Parents and Paid Providers*

	<b>Mother (N=40)</b>	<b>Father (N=24)</b>	<b>Paid Provider (N=15)</b>
No Prison Time	48%	50%	33%
Prison < 5 Years	13%	25%	53%
Prison > 5 Years	40%	25%	13%



# Technology

# HOW ABOUT TECHNOLOGY?

- Hundreds of Inventors
- Approached monthly with ideas, patents, prototypes.
- But, have you ever seen one on the shelf at Target or Walmart.
- “I would never forget MY child”





## HOW ABOUT TECHNOLOGY?

- ~20 auto models have reminders
- Voluntary Reminder Systems by 2025
- Not a panacea
  - Mostly “forgotten” category
  - Decade plus before most cars would have reminders
  - 200 million registered “light-duty” vehicles
  - “Forgotten” – 19 per year
  - 10% of vehicles = 1.9 saved per year

# BUT . . .

- Main Focus is 54% “Forgotten”
  - Former HOT CARS Act (previous Congress)
    - If Phased in...
    - By Year 10 (~2030) approximately 65% of vehicles replaced
    - $65\% \times 54\% \times 37 = 13$  lives saved!!
      - BUT NOT 25 OTHERS
      - Most impacted under-served that do not get new cars
  - **Only one of many layers of protection**



# **Safety Recommendations**

# ACTIVE SAFETY RECOMMENDATIONS

- Never leave a child unattended in a vehicle -  
**NOT EVEN FOR A MINUTE!**
- If you see a child unattended in a hot vehicle -  
**CALL 9-1-1**
- If a child is missing-  
**CHECK THE POOL FIRST** then  
**VEHICLES**, including their trunks



# **PROACTIVE SAFETY RECOMMENDATIONS**

- **Be sure that all occupants leave the vehicle when unloading.**
- **Develop a routine of “Look Before You Lock”**
- **Keep a reminder in carseat**
- **Put “go-to” objects in the backseat**

# **PROACTIVE SAFETY RECOMMENDATIONS**

- **Teach your children that vehicles are never to be used as a play area.**
- **Keep keys and remote devices out of their reach**
- **If trapped, teach them to honk the horn**



# **PROACTIVE SAFETY RECOMMENDATIONS**

- **Have a plan with your childcare provider**
  - **If your child does not show up, have them contact you**



# **Cars are not babysitters.**

Summer sun beating on a parked car  
can generate dangerous heat inside.  
It's no place to leave children.



Texas Department of Protective  
and Regulatory Services





Department of Meteorology and Climate Science  
San Jose State University

## **CONTACT INFO**

**Jan Null, CCM**

**San Jose State University**

**<http://noheatstroke.org>**

**650-712-1876**

**[jan.null@sjsu.edu](mailto:jan.null@sjsu.edu)**

# Questions and Answers



Please enter your questions in the Q & A pod

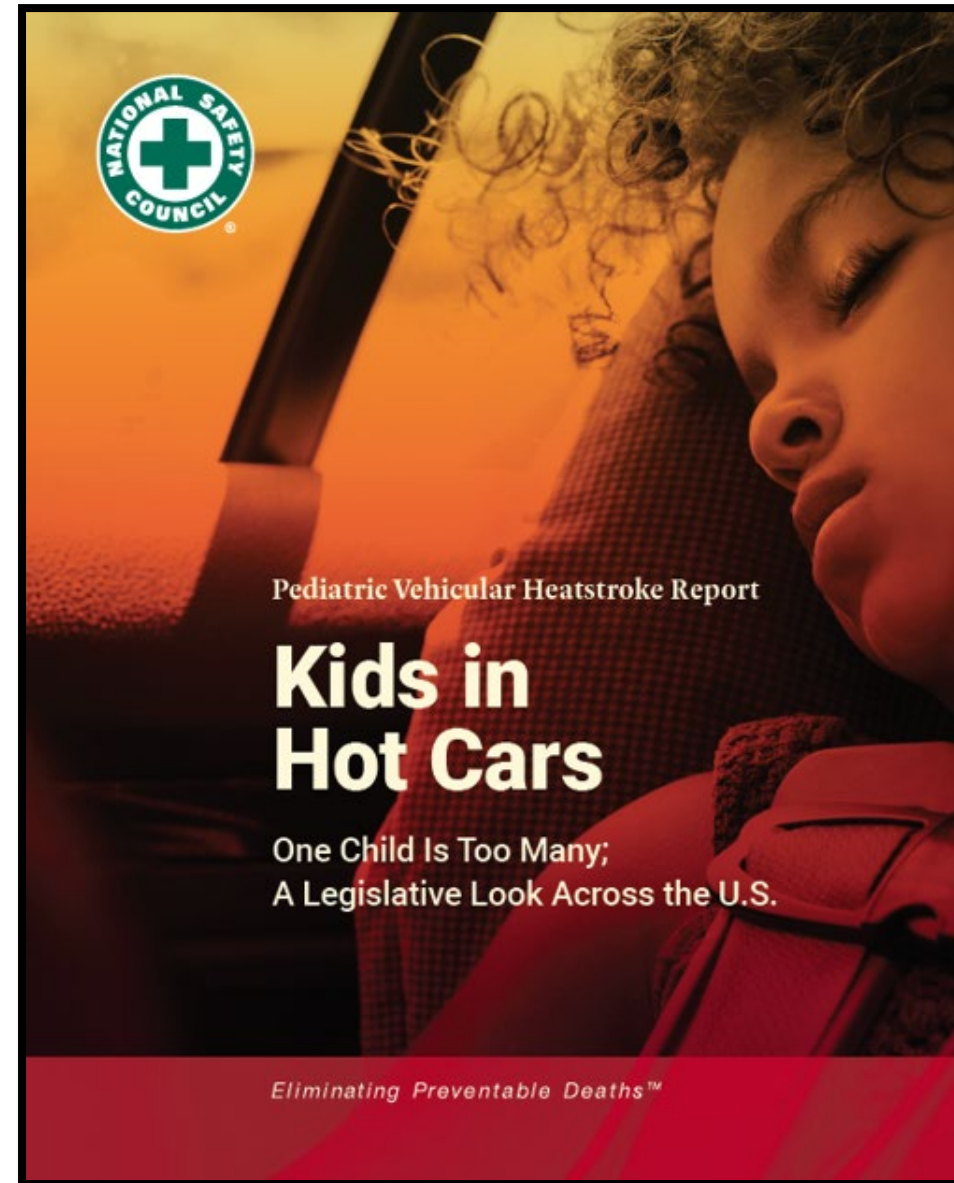


# Pediatric Vehicular Heatstroke

Amy Artuso  
April 22, 2021

## Legislative Report

# One Child Is Too Many

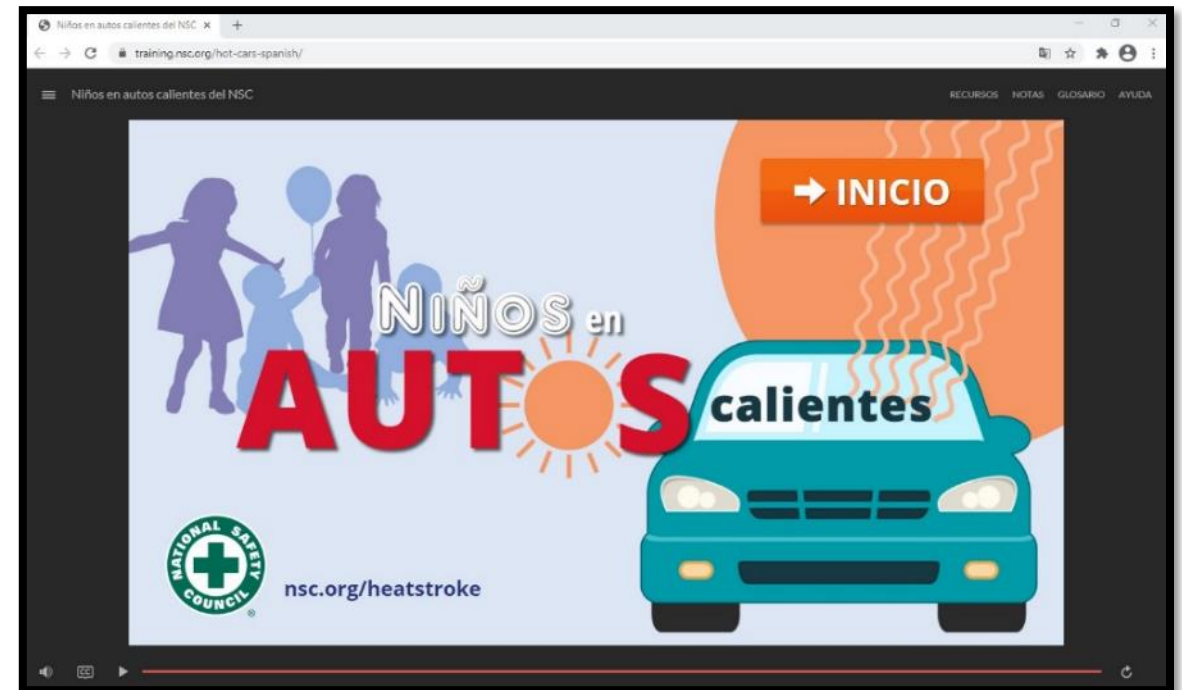




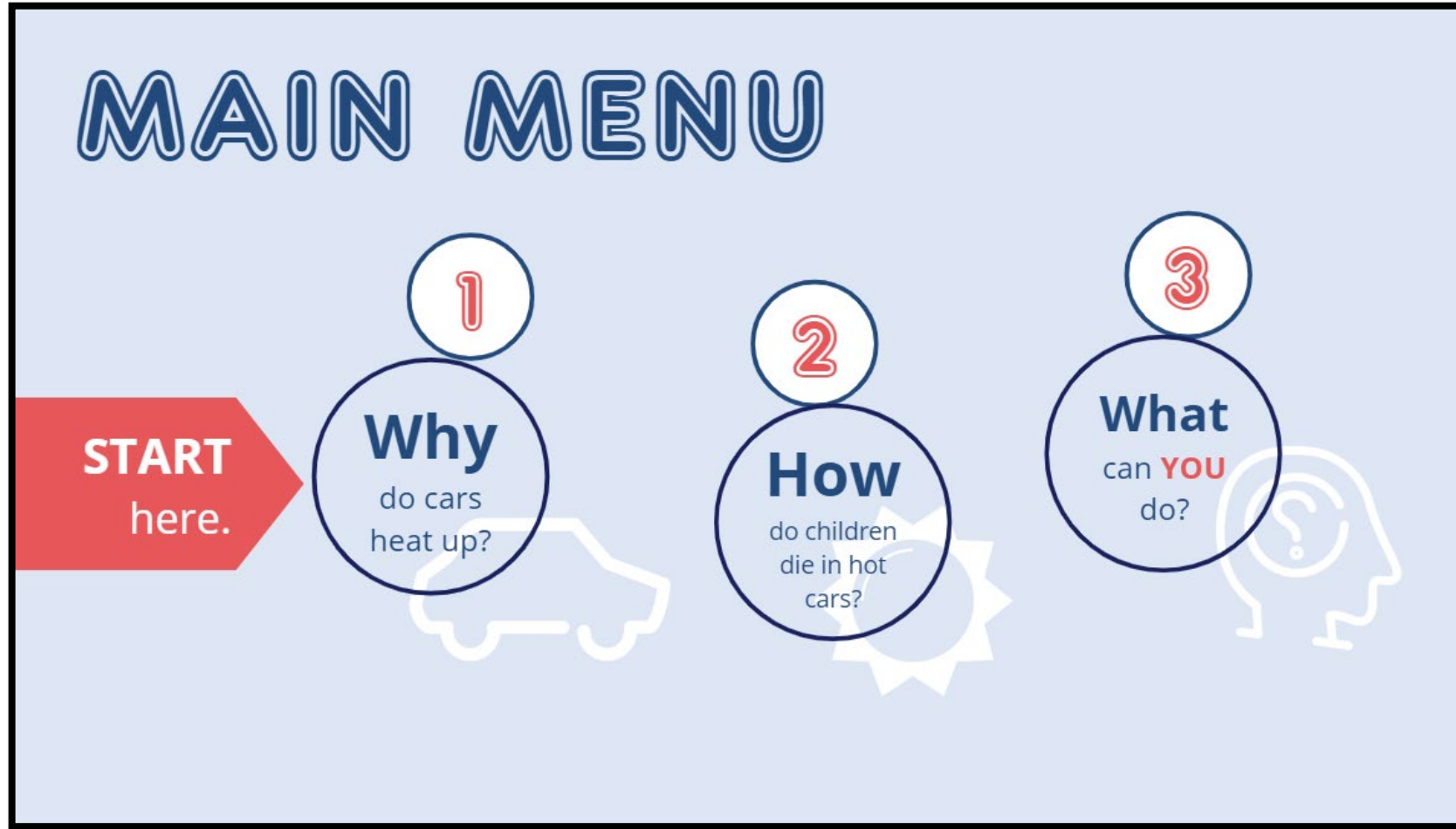
# [nsc.org/hotcars](https://nsc.org/hotcars)



## Available in Spanish



# [nsc.org/hotcars](https://nsc.org/hotcars)



RESOURCES	TRANSCRIPT	GLOSSARY	HELP
<a href="#">NSC Kids in Hot Cars Report</a>			
<a href="#">Child Heatstroke Cut and Share Info...</a>			
<a href="#">Child Heatstroke Communication Aid</a>			
<a href="#">Look Before You Lock</a>			
<a href="#">Pediatrics Journal Study</a>			
<a href="#">CDC: Extreme Heat</a>			
<a href="#">Heat Stroke: What to Do</a>			
<a href="#">Hot Car Deaths - NSC Injury Facts</a>			
<a href="#">Multitasking MYTH</a>			
<a href="#">Fatigue - You're More Than Just Tired</a>			
<a href="#">Why the Brain Can Be Blamed</a>			



“But...

**I would never**

unknowingly leave  
**MY** child in the car!”



Child heatstroke deaths happen to  
**well-intentioned parents  
and caregivers.**



# Additional Resources

## EDUCATE

Aproveche las redes sociales, grupos de vecinos, grupos de la iglesia, grupos de padres. Publique información habitualmente, especialmente los días calientes y soleados. Ofrezca hacer una presentación breve en una reunión de grupo.

Si usted no es un orador nato, use el curso de aprendizaje virtual Niños en autos calientes durante su presentación, como apoyo para presentar los temas.

## A TODAS LAS PERSONAS

**QUÉ DECIRLES A LOS CUIDADORES.**  
Acérquese a cualquier persona que necesite esta información esencial con una actitud neutra e imparcial.

"Sé que les importa la seguridad tanto como a mí, así que deseo compartir información que ha cambiado la manera en la que procedo cuando mis hijos están en el auto".

"Mi cónyuge y Yo ideamos un plan de seguridad para nuestros hijos en automóviles y otros vehículos. Deseo compartirlo con ustedes porque son miembros valiosos de nuestro(a) [equipo de cuidadores/familia]".

Cite un caso real de su estado/región y diga, "La historia de esta familia me abrió los ojos, y Quiero compartir con ustedes lo que mi familia está haciendo ahora y cómo ustedes pueden ayudar para garantizar que seamos cuidadosos y constantes".

## QUE CUIDEN DE SU HIJO

...de la dinámica de calentamiento de un vehículo, los peligros de los vehículos sin supervisión y del poder del modo de piloto automático en el cerebro.

[nsc.org/hotcars](https://nsc.org/hotcars)  
Envíe por correo el enlace para el virtual Niños en autos calientes a quienes cuidan de su hijo. Posteriormente...

[nsc.org/heatstroke](https://nsc.org/heatstroke)  
Visite además: [noheatstroke.org](https://noheatstroke.org)

Temperatura estimada en el interior del vehículo

TIEMPO TRANSCURRIDO	70	75
0 minutos	70	75
10 minutos	89	94
20 minutos	99	104
30 minutos	104	109
40 minutos	108	113
50 minutos	111	116
60 minutos	113	118

Cortesía de Jan Null, CCM, Departamento de Meteorología y Climatología de la Universidad Estatal de San José

## 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.

[nsc.org/hotcars](https://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](https://nsc.org/heatstroke)  
Also visit: [noheatstroke.org](https://noheatstroke.org)

**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."

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.

**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

# Additional Resources

**nsc**  
National Safety Council

**SHARE THIS!**

**FOR MORE, VISIT**  
nsc.org/heatstroke  
noheatstroke.org  
nsc.org/hotcars  
[Free E-learning Course]

**FREE E-LEARNING**

**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 Nul, CCM, Department of Meteorology & Climate Science, San Jose State University

**nsc**  
National Safety Council

**¡COMPARTA ESTO!**

**PARA MÁS INFORMACIÓN, VISITE**  
nsc.org/heatstroke  
noheatstroke.org  
nsc.org/hotcars  
[Curso de aprendizaje virtual gratuito]

**APRENDIZAJE VIRTUAL GRATUITO**

**Temperatura estimada en el interior del vehículo vs. tiempo transcurrido**

TIEMPO TRANSCURRIDO	Temperatura del aire EXTERIOR					
	70	75	80	85	90	95
0 minutos	70	75	80	85	90	95
10 minutos	89	94	99	104	109	114
20 minutos	99	104	109	114	119	124
30 minutos	104	109	114	119	124	129
40 minutos	108	113	118	123	128	133
50 minutos	111	116	121	126	131	136
60 minutos	113	118	123	128	133	138

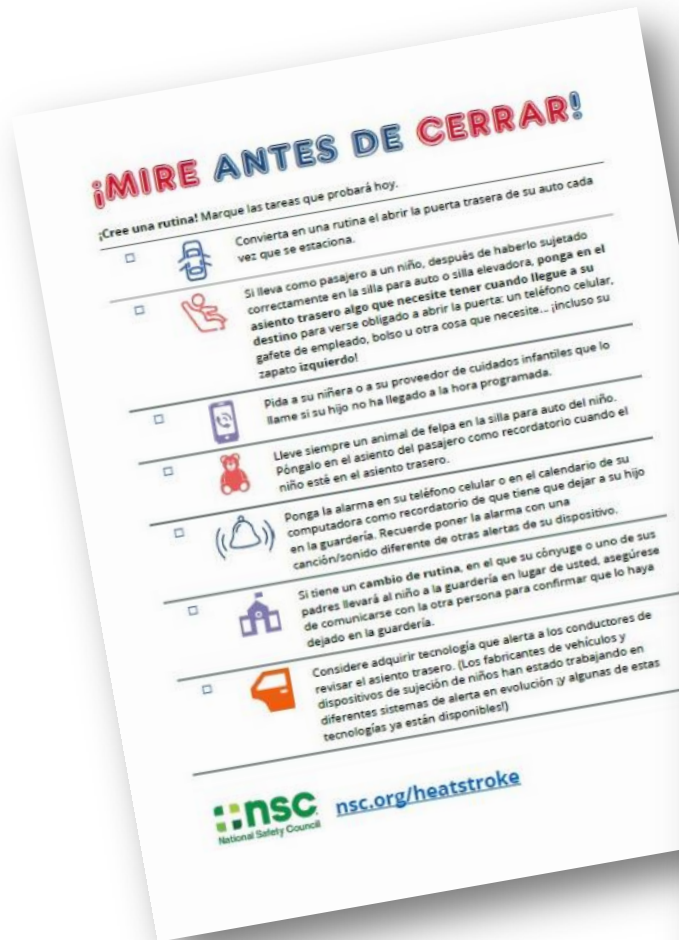
Cortés de Jan Nul, CCM, Departamento de Meteorología y Ciencias Clínicas, Universidad Estatal de San José

Cut and Share Handout

1/2 sheet size,  
2 per sheet



# Additional Resources



## LOOK BEFORE YOU LOCK!

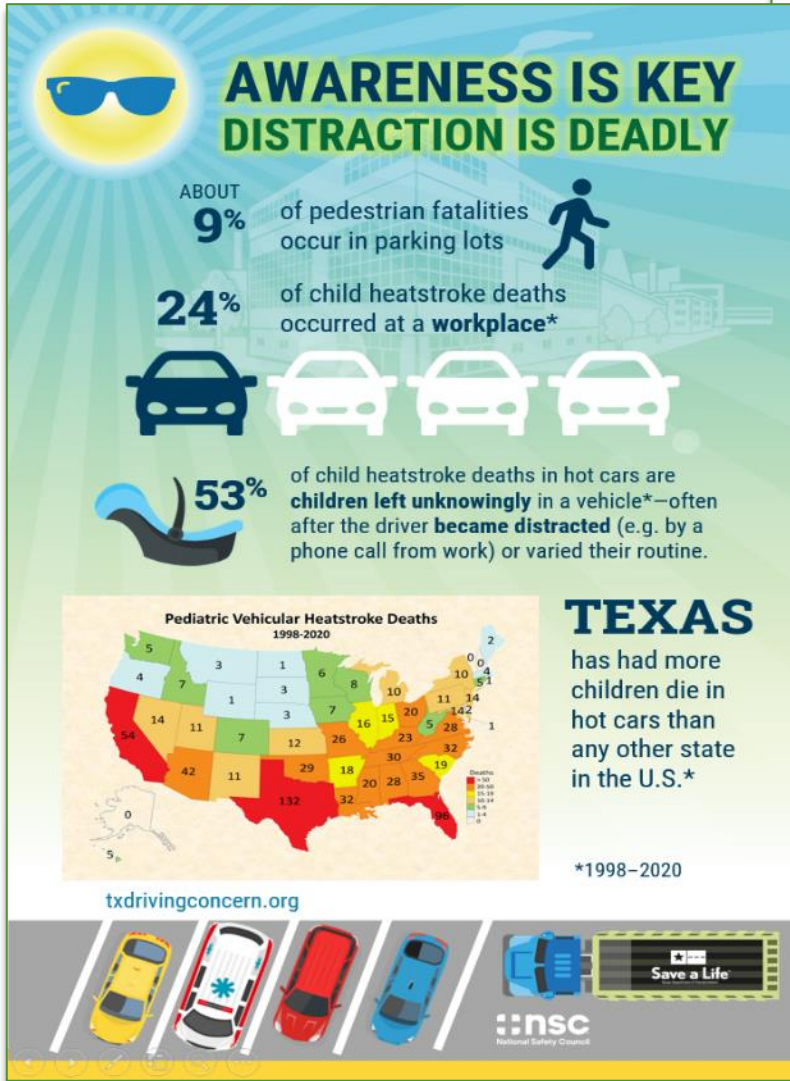
Create a routine! Check off the tasks you will try today.

- ☐ 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!)

[nsc.org/heatstroke](https://nsc.org/heatstroke)

Create a consistent routine.

Always look before you lock.



## DISTRACTION is deadly.

OUR DRIVING CONCERN TEXAS DEPARTMENT OF TRANSPORTATION

**WALK. Don't Talk!**

See and be seen. **Make eye contact with drivers.**

National Safety Council finds as many as **two-thirds of drivers** may be pulling into shopping centers distracted.

**LOOK** before you lock, and **ALSO** when you **WALK**

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

**Be a mindful walker!** Keep an eye out as you walk through a parking lot. Look **and** listen.

If you see unattended children trapped in cars, call 911 immediately. Have someone else search for the driver or ask the facility to page them.

**HOT happens FAST!**

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

## DISTRACTION & HOT CARS

Save a Life

You arrive at work on a pleasant 75-degree day. After parking and locking your car, you enter your workplace. Outdoors, how hot is the inside of your car after 20 minutes?

- 78 degrees
- 85 degrees
- 94 degrees

HC02 © 2021 National Safety Council. All rights reserved.

txdrivingconcern.org

**Answer: 94 degrees**

- ✓ Are you surprised?
- ✓ On average, the temperature inside a vehicle will rise 19 degrees in just 10 minutes!
- ✓ Even on mild or cloudy days, temperatures inside vehicles can reach life-threatening levels.

HC02

## Safety Coach Cards

Talking Points Infographic (1/2 sheet size, 2 per sheet)



## VEHICLES at the WORKPLACE

### Parking Lot Dangers

Safety Guide for  
Employers and Employees



txdrivingconcern.org



DIY Mini-zine

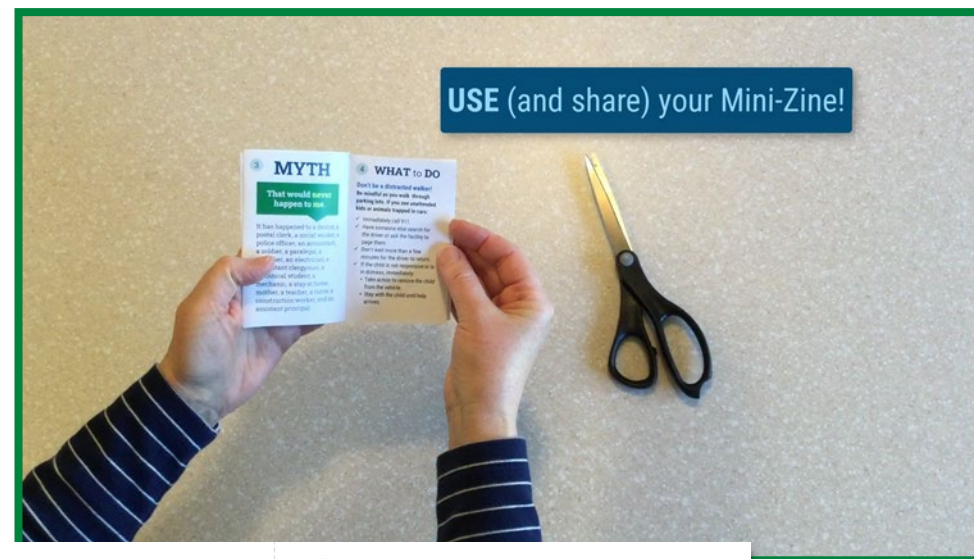
## WORKPLACE

**parking lots** are where many  
child hot car deaths occur.

**Pedestrians:** Watch for parking lot  
safety concerns, and pay  
attention to dangers such as  
children unattended in vehicles.

Visit <https://nsc.org/hotcars> for  
tools, tips, and training!

Also visit:  
<https://www.noheatstroke.org/> and  
[txdrivingconcern.org](http://txdrivingconcern.org)



5

6

### 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

# [cpsboard.org/heatstroke](https://cpsboard.org/heatstroke)

Curriculum Recertification Award Nominations Board Membership Resources Car Seat Safety Logout

CPS Board > Car Seat Safety > Heatstroke Prevention: Role of Parent is That of Lifelong Teacher



ELAPSED TIME: 15 MINUTES

TEMPERATURE: 80 OUTSIDE 106 INSIDE

NoHeatstroke.org

**Preventing Heatstroke**

In 2019, more than 50 children died of heatstroke because they were... important for everyone to understand that children are more vulnerable... deaths are preventable. We – as parents, caregivers and bystanders... another death doesn't happen.

## Heatstroke Prevention Newsletters:

- April 2020
- May 2020
- June 2020
- July 2020
- August 2020


## NHTSA Virtual Press Event and Roundtable: July 1, 2020

- Virtual Event
- Media Kit

+ How Can a Child Be Forgotten?

- 🚗 National Highway Traffic Safety Administration

- The Issue: [nhtsa.gov/campaign/heatstroke](https://nhtsa.gov/campaign/heatstroke)
- Programmatic recommendations and tips:
  - Child Safety
    - Heatstroke is one of the leading causes of non-crash fatalities among children.
    - Prevention Tips
    - What You Need to Know, Now.
      - Quiz: Test Your Knowledge
  - Tips to Avoid Child Heatstroke
    - Always Look Before You Lock
    - Keep in Mind a Child's Sensitivity to Heat
    - Understand the Potential Consequences of Kids in Hot Cars
- Traffic Safety Marketing – Heatstroke Campaign Assets – “Park. Look. Lock.”



+ Safe Kids Worldwide

+ National Safety Council

+ NoHeatstroke.org

+ KidsAndCars.org

+ American Academy of Pediatrics

+ Centers for Disease Control and Prevention



## Maximize Safety For Our Youngest Passengers



**Thank you!**

**Amy Artuso, MPH, CPST-I**

**[Amy.Artuso@nsc.org](mailto:Amy.Artuso@nsc.org)**

# Questions and Answers



Please enter your questions in the Q & A pod



# Register for CSN's Next Webinar!

## The Child Safety Learning Collaborative: Together We Are Stronger

Wednesday, May 5, 2021  
2:00PM-3:00PM ET

Learn more and register here:  
<https://go.edc.org/CSLC-Webinar>



# Thank you!

Please fill out our evaluation: <https://www.surveymonkey.com/r/BZQ5ZMS>



Visit our website:  
[www.ChildrensSafetyNetwork.org](http://www.ChildrensSafetyNetwork.org)