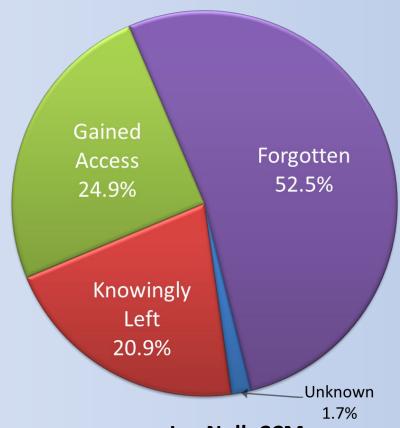
# Pediatric Vehicular Heatstroke Deaths: By the Numbers (1998-2023)



Jan Null, CCM

Department of Meteorology and Climate Science San Jose State University January 2024 On average, 37 children die from heatstroke inside hot vehicles each year. During the period of 1998 through 2023 that's a total of 969 Pediatric Vehicular Heatstroke (PVH) deaths that have been documented in the United States.

#### **Data Collection**

The statistics presented here were primarily gathered with customized online news searches of electronic media using tools such as Google News; but are supplemented with a deep dive into archived sources. These include newspaper archives, correspondence with reporters, court records, law enforcement officials, district attorneys, medical examiner/coroner offices, and child death review teams. Occasionally, a death is brought to the attention of the author from a third party that has verifiable information never caught by local media, happened in a locale without electronic media or were suppressed by the families or local authorities. It is also clear, that there are other additional cases that go "under the radar" for some of the reasons above, thus the numbers presented here are conservative.

Using electronic news sources yields nearly twice as many reported heatstroke deaths of children in vehicles as more formal methodologies by official agencies using public records. For example, the latest (March 2015) National Highway Traffic Safety Administration (NHTSA) Not-in-Traffic Surveillance (NiTS): Non-Crash Fatalities and Injuries report, based on death certificates from the special mortality files of the National Vital Statistics System (NVSS), estimated an annual average of only 19 fatalities of children (i.e., <14 years) due to heatstroke in vehicles. By tracking deaths via media reports, there were 112 deaths documented in that same 3-year period.

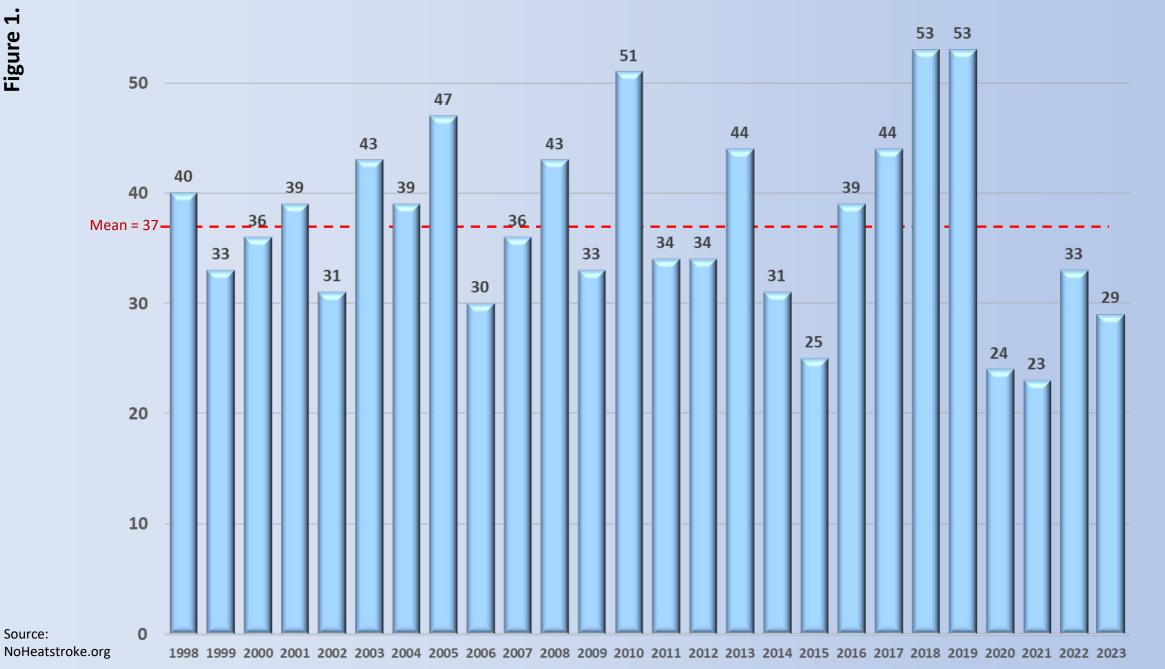
The data presented in this document is an amalgamation of material from the <u>Noheatstroke.org</u> website and its underlying database of the over 969 PVH deaths which have occurred in the United State since 1998. **The data cutoff for inclusion in this document was January 15, 2024**. Permission is granted to use these materials, with full attribution as: "Source: Jan Null, CCM, Department of Meteorology and Climate Science, San Jose State University, <a href="http://noheatstroke.org">http://noheatstroke.org</a>. A live link back to <a href="http://noheatstroke.org">http://noheatstroke.org</a> is preferred as data on the site changes frequently and this ensures that end users can gain access to the most accurate and up-to-date information.

Please direct all correspondence to: <a href="mailto:jnull@noheatstroke.org">jnull@noheatstroke.org</a>

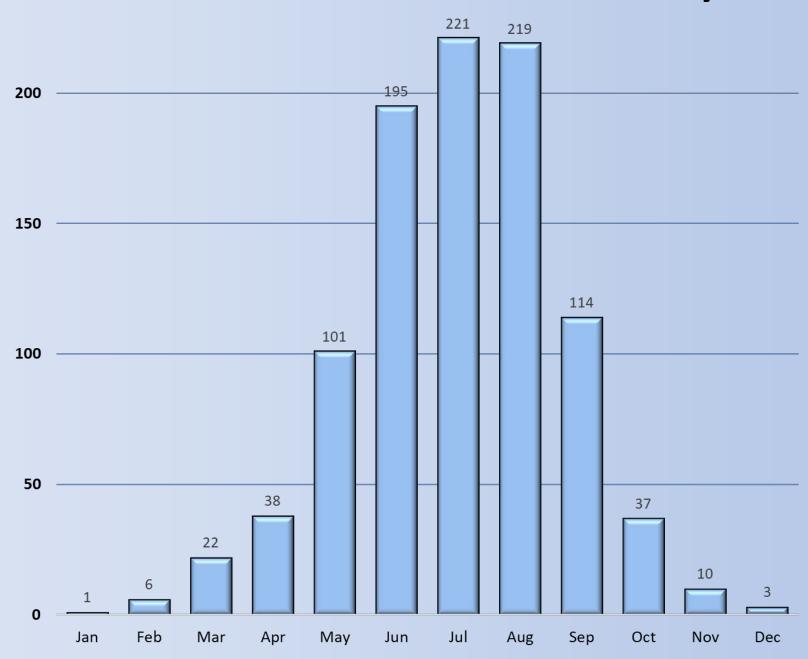
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#### **Pediatric Vehicular Heatstroke Deaths: Annual Distribution**



#### Pediatric Vehicular Heatstroke Deaths: Monthly Distribution



### Pediatric Vehicular Heatstroke Deaths: Monthly Totals

	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	10	7	4	2				32
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		1		25
2021				1		6	3	7	5	1				23
2022					3	7	5	9	8		1			33
2023		1	2	1	6	2	6	7	2	2				29
											Total 1998-2023 > 96			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	Total
Avg.	< 1	< 1	2	2	4	8	9	8	5	2	< 1	< 1	<1	38
Max.	1	2	2	5	8	12	16	15	10	5	3	1	1	53
Min.	0	0	0	0	2	3	3	1	1	1	1	1	23	23

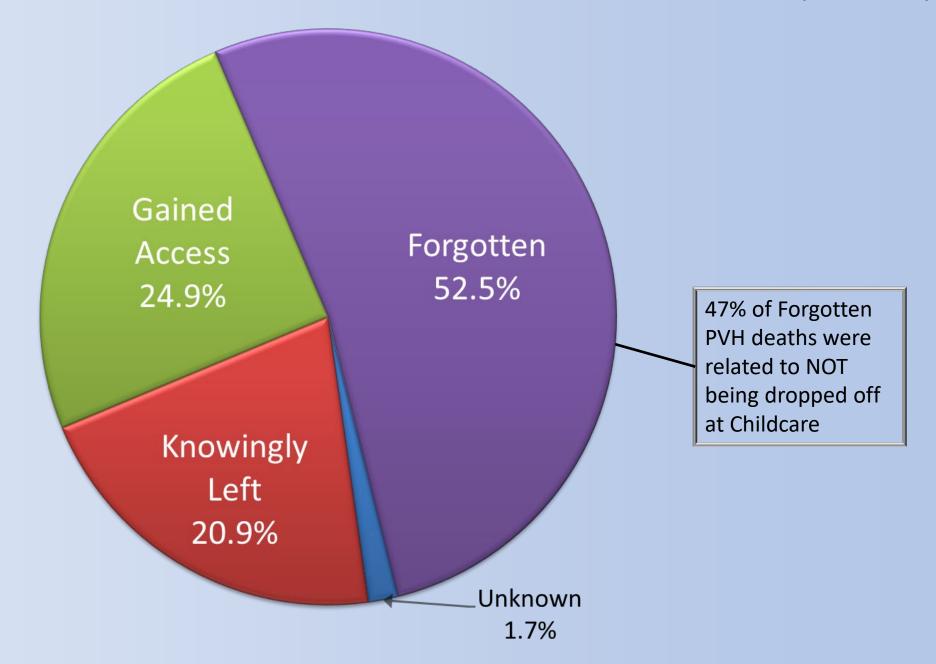
### **Cumulative Monthly PVH Deaths**

	Running Totals through end of each month:												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Final
1998	0	0	0	2	6	15	25	36	39	39	39	39	40
1999	0	0	1	2	4	12	28	32	33	33	33	33	33
2000	0	0	1	1	9	15	22	32	35	36	36	36	36
2001	0	0	2	3	7	15	25	35	37	38	39	39	39
2002	0	0	1	1	2	9	19	26	30	32	32	32	32
2003	0	0	0	2	6	16	26	38	40	43	43	43	43
2004	0	1	3	8	12	16	25	32	38	39	39	39	39
2005	0	0	0	0	3	12	24	35	45	47	47	47	47
2006	0	0	0	2	4	10	17	27	27	27	30	30	30
2007	0	0	2	2	5	11	20	27	35	36	36	36	36
2008	0	1	3	5	7	13	24	36	39	43	43	43	43
2009	0	0	1	3	6	17	24	30	32	32	32	33	33
2010	0	0	1	4	10	20	28	43	50	51	51	51	51
2011	0	0	2	2	8	18	26	29	32	34	34	34	34
2012	0	0	0	0	4	10	16	28	30	30	33	34	34
2013	0	0	0	0	8	17	26	34	43	44	44	44	44
2014	0	0	0	4	8	16	23	26	28	31	31	31	31
2015	0	0	0	1	2	8	11	19	24	24	25	25	25
2016	1	1	2	5	9	16	25	29	35	39	39	39	39
2017	0	2	4	7	10	20	33	40	42	44	44	44	44
2018	0	1	3	4	12	24	34	43	52	52	52	52	53
2019	0	0	0	3	10	18	26	40	47	52	53	53	53
2020	0	0	0	1	2	6	14	20	23	24	24	25	25
2021	0	0	0	1	1	7	10	17	22	23	23	23	23
2022	0	0	0	0	3	10	15	24	32	32	33	33	33
2023	0	1	3	4	10	12	18	25	27	29	29	29	29
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Final
Avg.	0	0	1	3	6	14	22	31	35	37	37	37	37
Max.	1	2	4	8	12	24	34	43	52	52	53	53	53
Min.	0	0	0	0	1	6	10	17	22	23	23	23	23

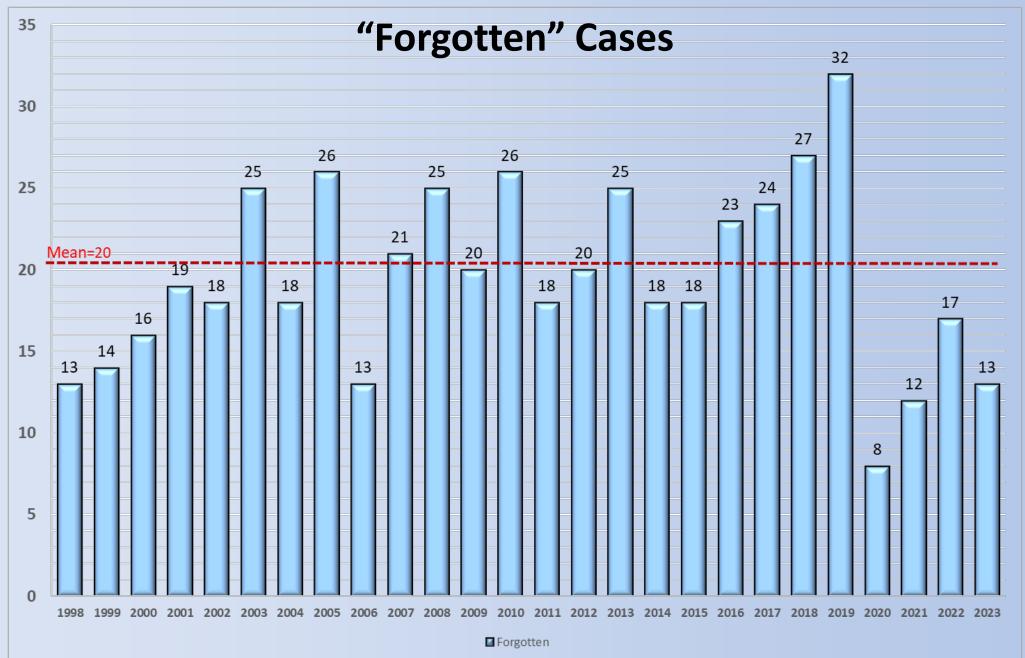
#### **Pediatric Vehicular Heatstroke Deaths: First of Year**

Date & Location of 1st Death						
Year	Date	State				
1998	24-Apr	AR				
1999	16-Mar	ОН				
2000	6-Mar	FL				
2001	21-Mar	TX				
2002	14-Mar	ОН				
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				
2021	26-Apr	NC				
2022	3-May	GA				
2023	27-Feb	AL				
Average	25-Mar					

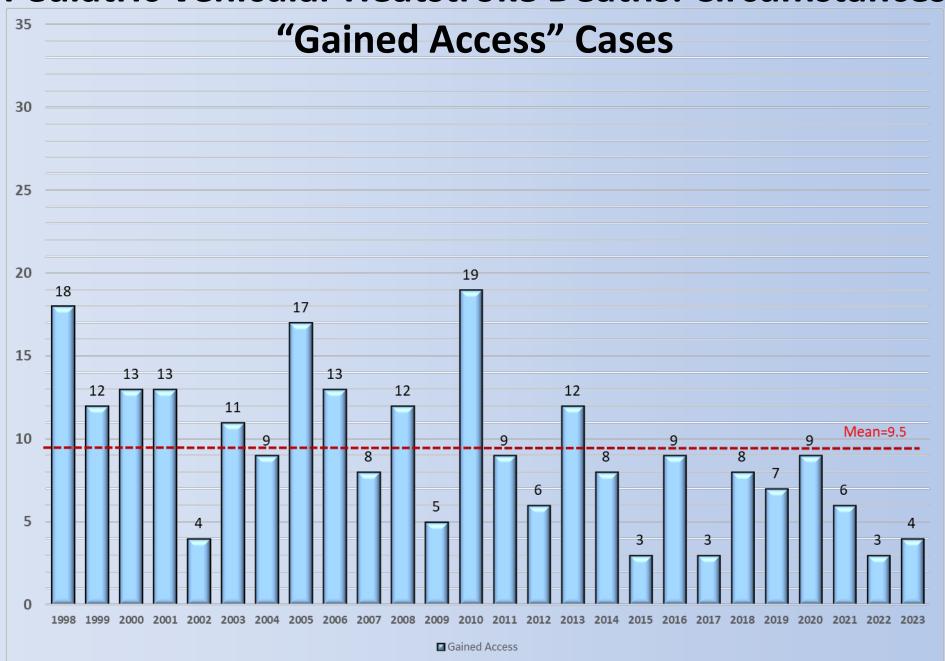
#### Pediatric Vehicular Heatstroke Deaths: Circumstances (1998-2022)



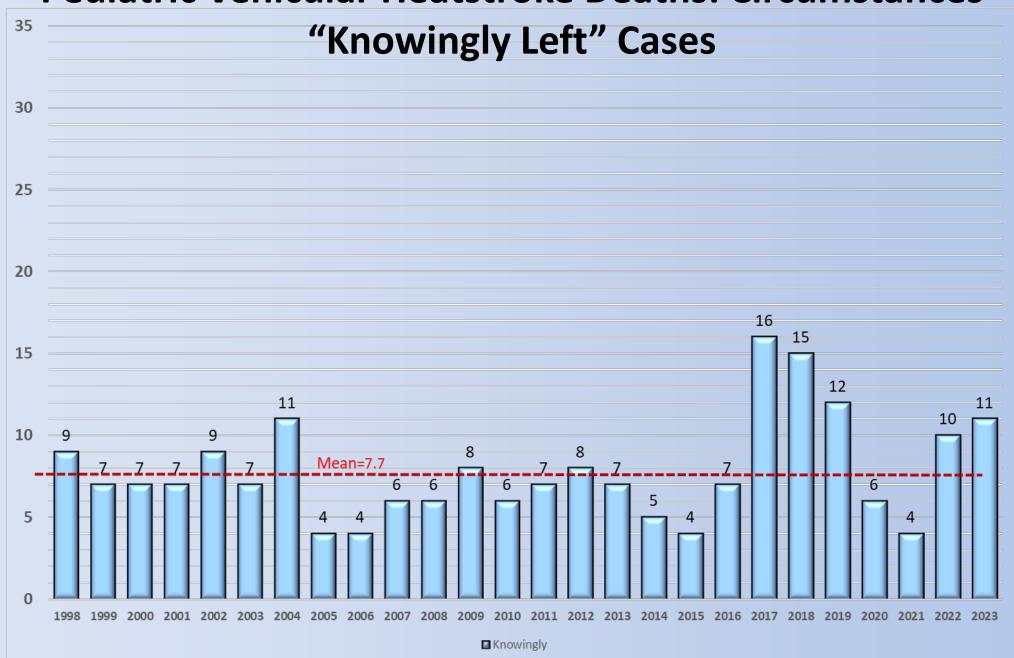
#### **Pediatric Vehicular Heatstroke Deaths: Circumstances**

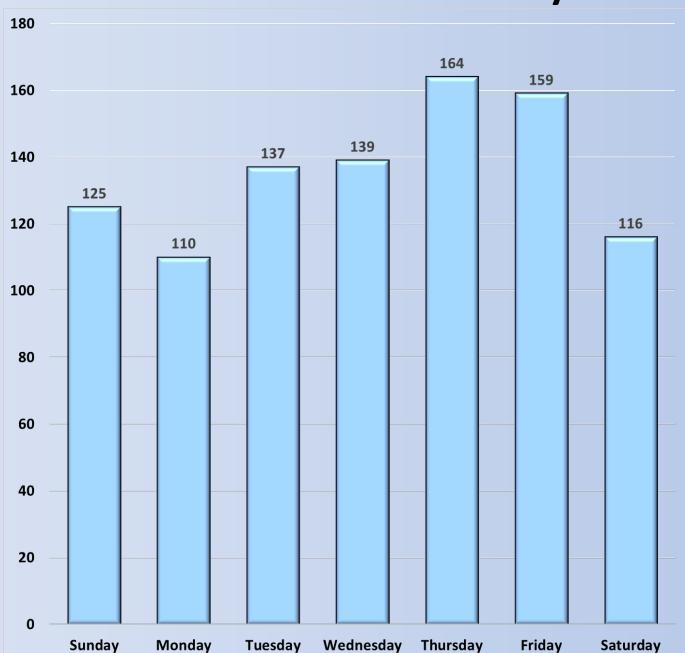


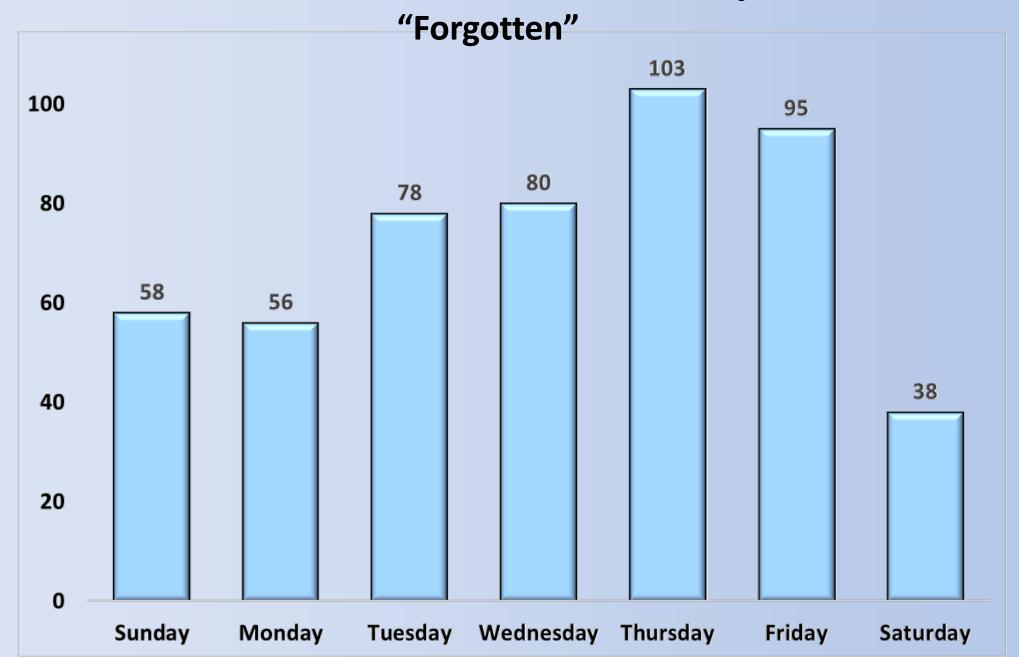
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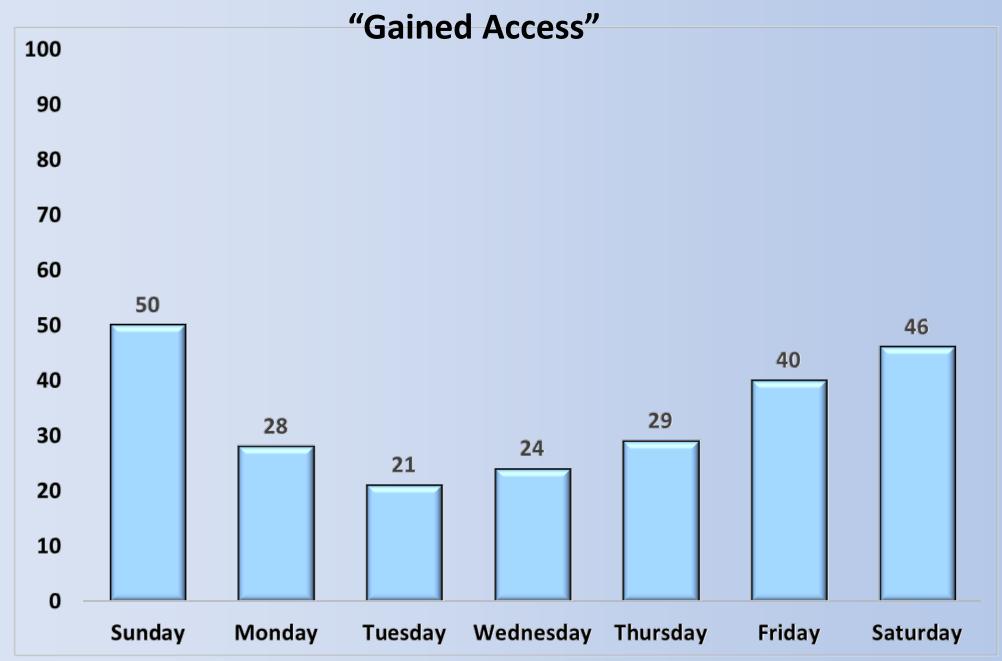


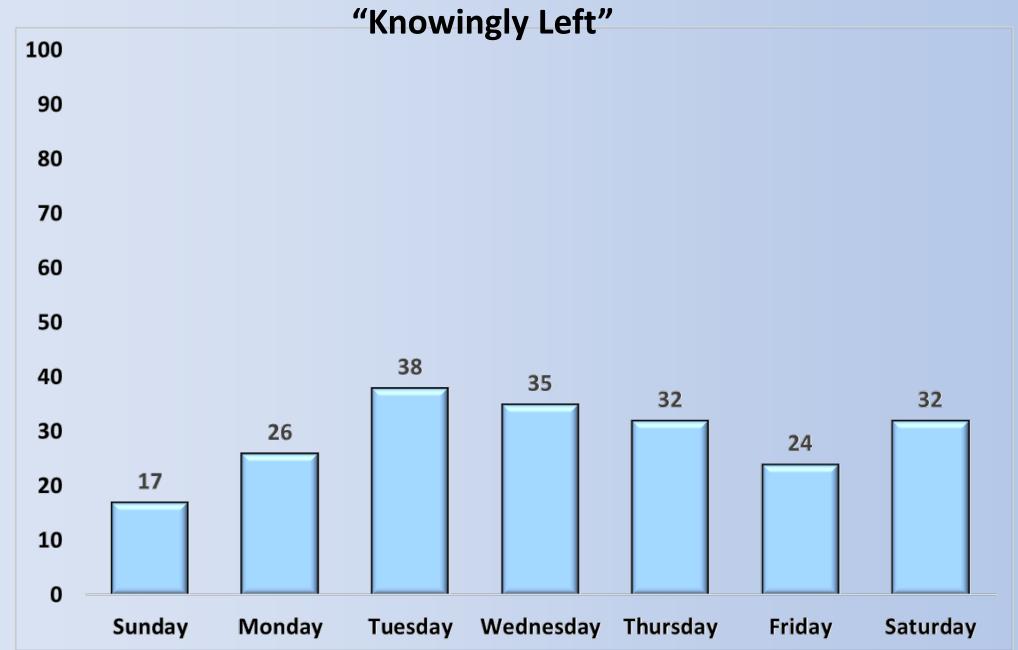
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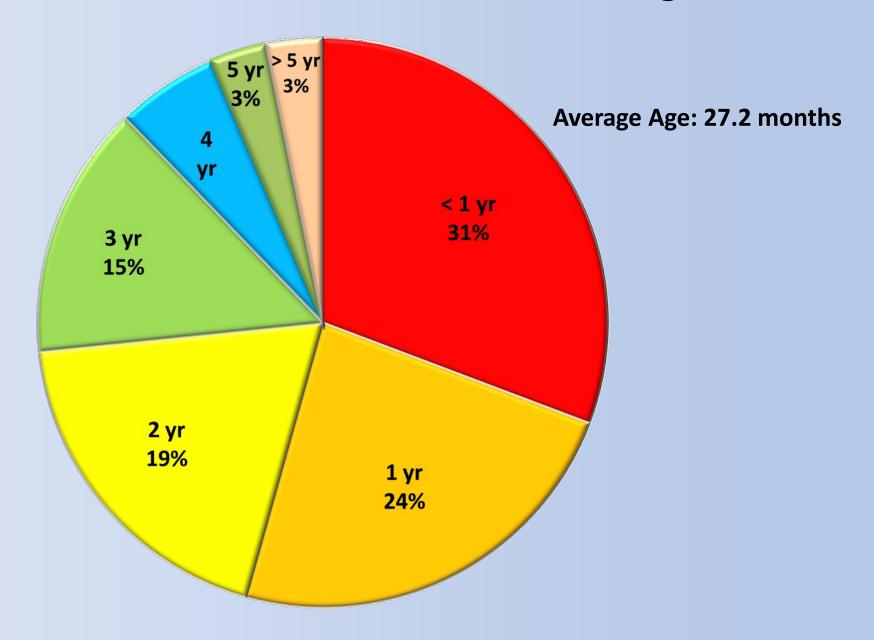




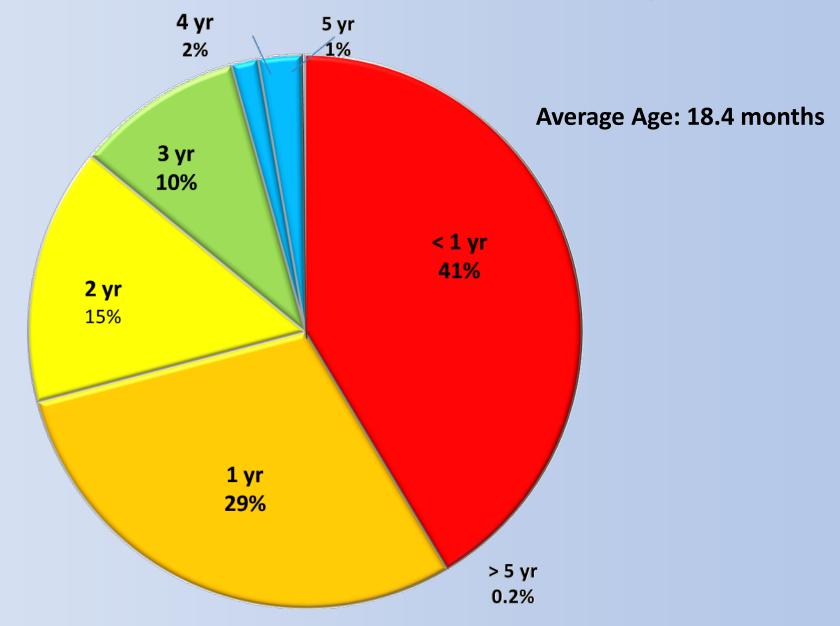




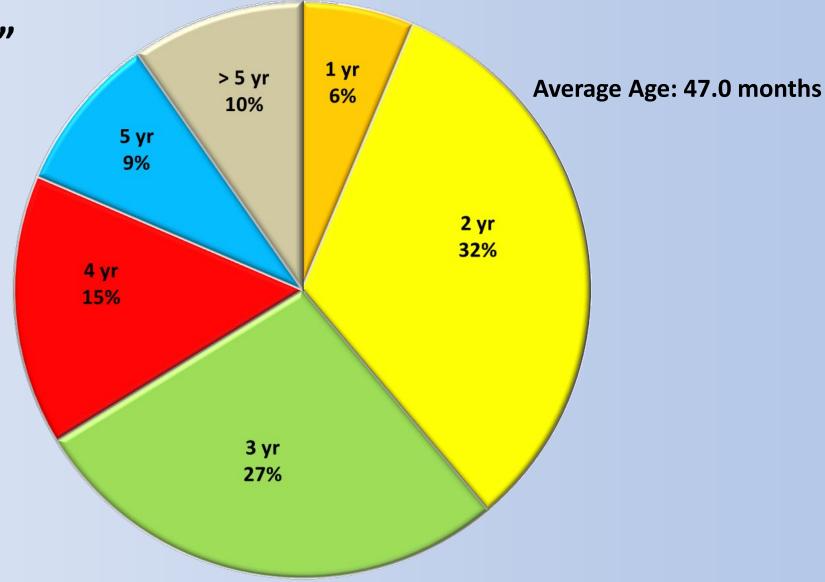


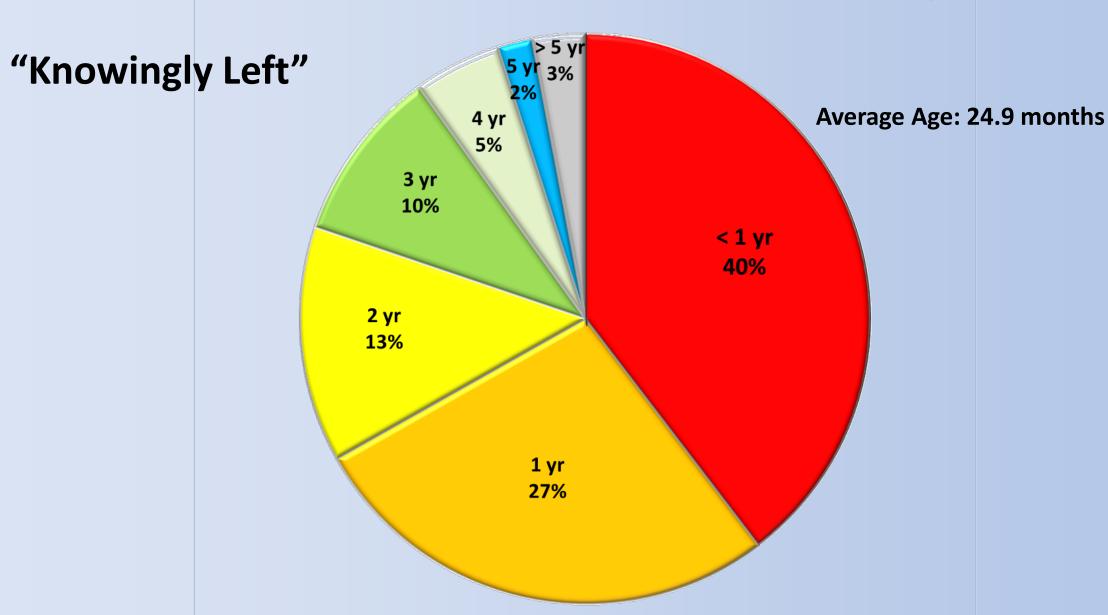


"Forgotten"

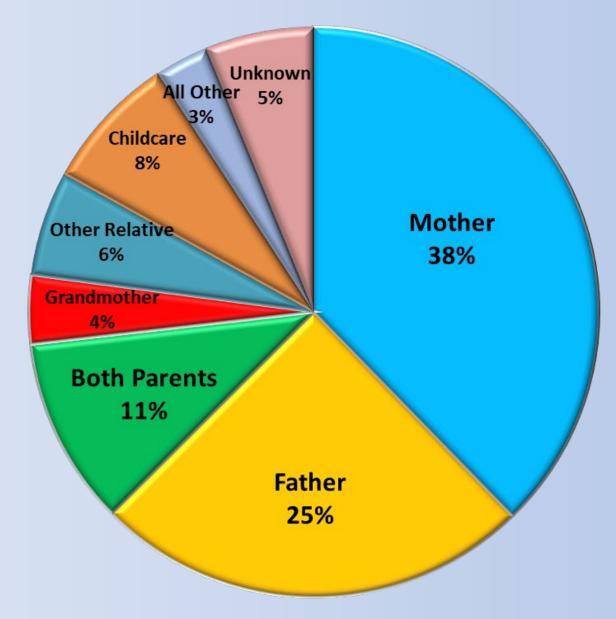






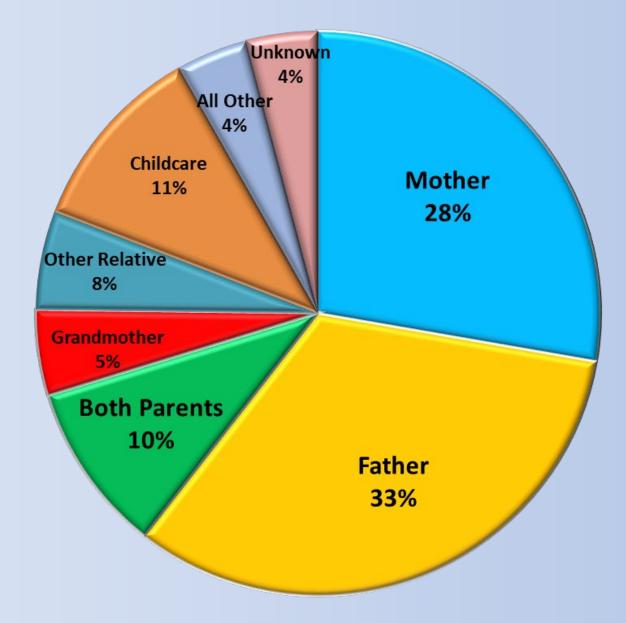


#### Responsible Person for Pediatric Vehicular Heatstroke Deaths



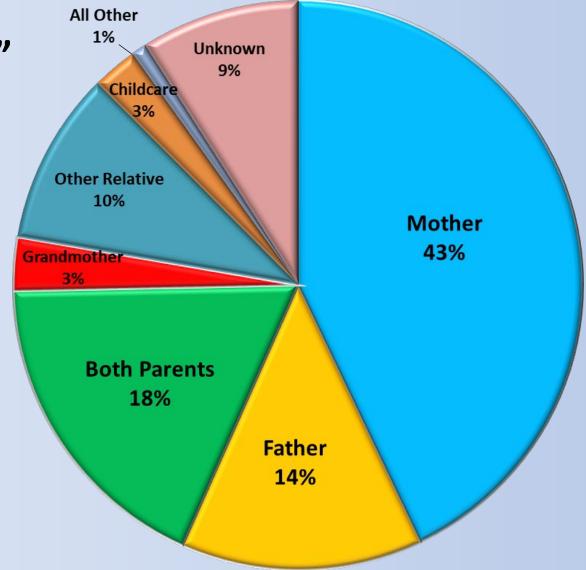
#### Responsible Person for Pediatric Vehicular Heatstroke Deaths:

"Forgotten"



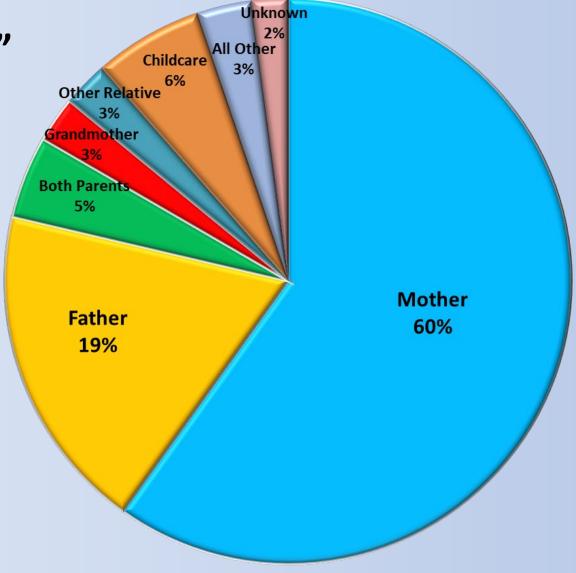
#### Responsible Person for Pediatric Vehicular Heatstroke Deaths:

"Gained Access"

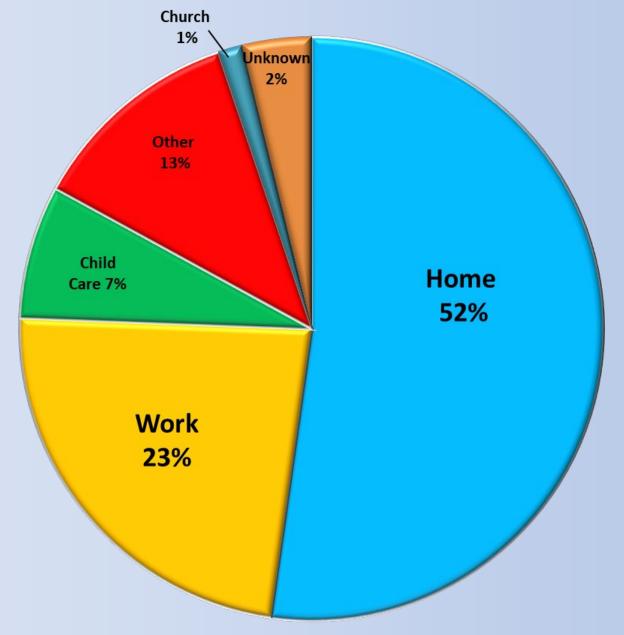


#### Responsible Person for Pediatric Vehicular Heatstroke Deaths:

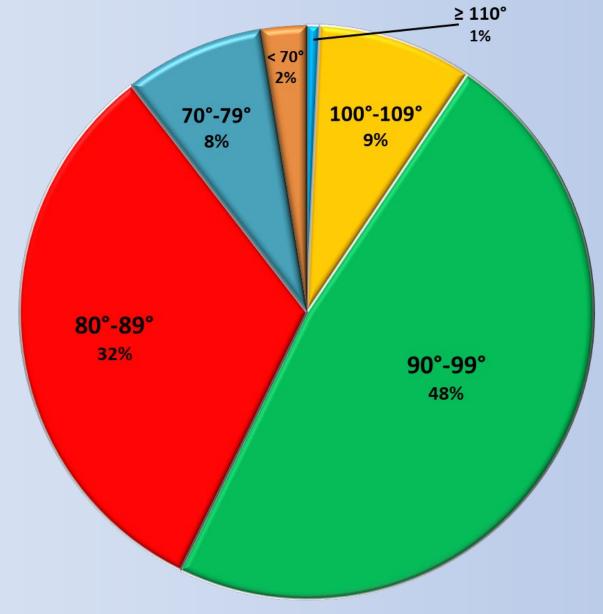
"Knowingly Left"



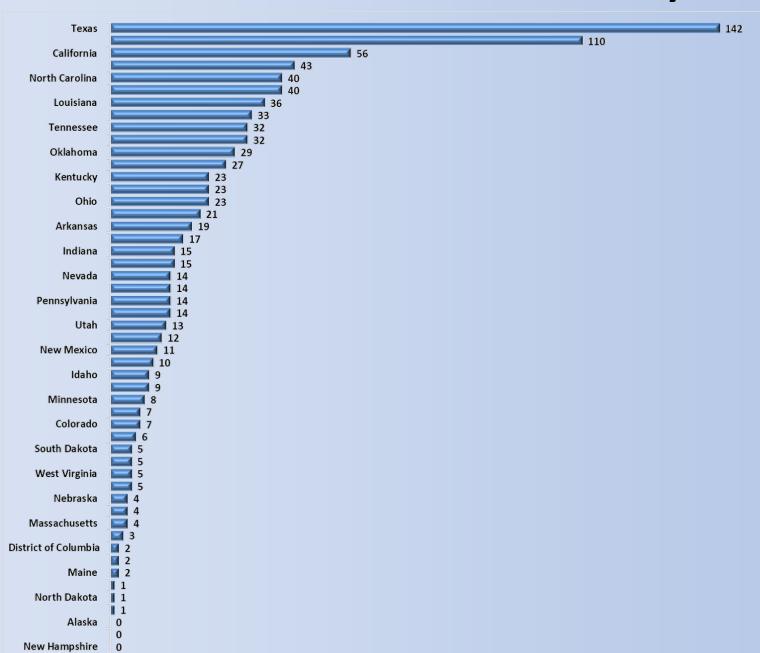
#### **Location of Pediatric Vehicular Heatstroke Deaths**



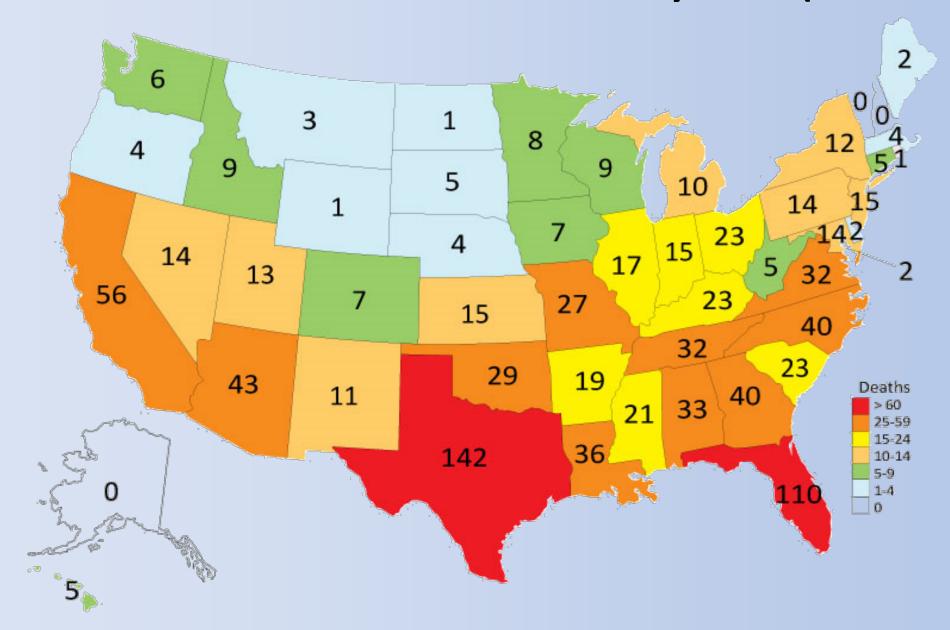
#### Daily Max Temperatures for Pediatric Vehicular Heatstroke Deaths

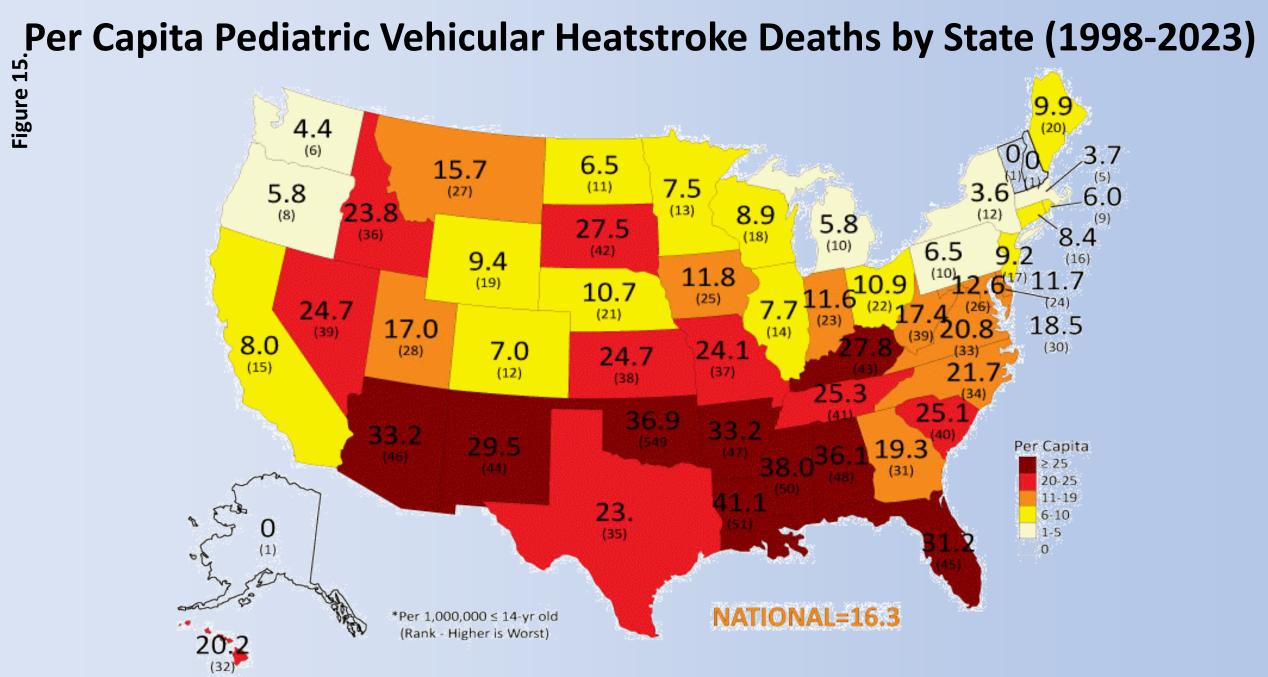


#### **Pediatric Vehicular Heatstroke Deaths by State**



#### Pediatric Vehicular Heatstroke Deaths by State (1998-2023)

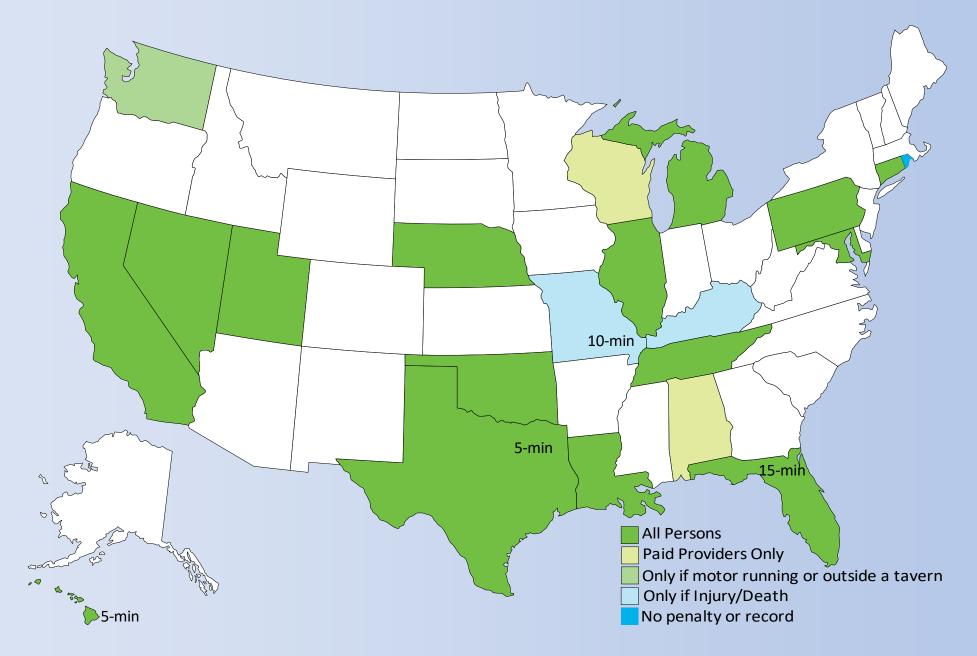




### Pediatric Vehicular Heatstroke Circumstances by State

Notice	and Assessment	Forgotten	Left 20.9%				
ivatioi	nal Averages	52.5%					
1998-2023	Highlighted <b>red</b> is ≥5	% above National Average; highhlighted <mark>blue</mark> is ≤5% below					
Totals	State	Forgotten	Accessed	Left			
142	Texas	60%	22%	13%			
110	Florida	64%	15%	13%			
56	California	46%	21%	30%			
43	Arizona	53%	26%	21%			
40	Georgia	45%	13%	35%			
40	North Carolina	48%	25%	23%			
36	Louisiana	53%	25%	22%			
33	Alabama	52%	27%	15%			
32	Tennessee	38%	28%	31%			
32	Virginia	69%	3%	19%			
29	Oklahoma	45%	34%	21%			
27	Missouri	30%	33%	26%			
23	Kentucky	43%	43%	13%			
23	Ohio	43%	30%	22%			
23	South Carolina	48%	17%	30%			
21	Mississippi	57%	24%	14%			
19	Arkansas	47%	32%	16%			
17	Illinois	41%	35%	18%			
15	Indiana	53%	33%	13%			
15	New Jersey	67%	27%	7%			
14	Kansas	50%	36%	7%			
14	Maryland	50%	14%	36%			
14	Nevada	64%	21%	14%			
14	Pennsylvania	57%	36%	0%			

#### 21 States with Unattended Child in Vehicle Laws



Source: NoHeatstroke.org

