TECHNOLOGY and PEDIATRIC VEHICULAR HEATSTROKE DEATHS: By the Numbers

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CIRCUMSTANCES OF PEDIATRIC VEHICULAR HEATSTROKE DEATHS

<table>
<thead>
<tr>
<th>Circumstances</th>
<th>1998-2021</th>
<th>Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forgotten</td>
<td>477</td>
<td>19.9</td>
</tr>
<tr>
<td>Gained Access</td>
<td>234</td>
<td>9.8</td>
</tr>
<tr>
<td>Knowingly Left</td>
<td>182</td>
<td>7.6</td>
</tr>
<tr>
<td>Unknown</td>
<td>14</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>907</strong></td>
<td><strong>37.8</strong></td>
</tr>
</tbody>
</table>

- Forgotten: 53%
- Gained Access: 26%
- Knowingly Left: 20%
- Unknown: 1%
### PEDIATRIC VEHICULAR HEATSTROKE

#### TECHNOLOGICAL MITIGATION SYSTEMS*

<table>
<thead>
<tr>
<th><strong>REMINDER SYSTEMS:</strong></th>
<th><strong>DETECTON SYSTEMS:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Door Logic</td>
<td>Radar</td>
</tr>
<tr>
<td>Sensor Pads</td>
<td>Infrared</td>
</tr>
<tr>
<td>Phone Apps</td>
<td>Ultrasonic</td>
</tr>
</tbody>
</table>

- Exclusive of car seats with sensors, apps and other after market solutions
CIRCUMSTANCES OF PVH MITIGATED BY TECHNOLOGY

FORGOTTEN (53%) --> REMINDER (53%) --> DETECTION (100%)

GAINED ACCESS (26%)

KNOWINGLY LEFT* (20%)

* Included based on the possibly misplaced assumption that a person knowingly leaving a child in a vehicle does not disable or otherwise ignore said system.
US VEHICLE FACTS

- 193 million light passenger vehicles
  - Includes cars, vans, SUVs and light trucks
- 17 million new vehicles sold per year
  - 8.8% of vehicles on the road
  - Average length of time new car kept: 8 years
  - Percent of new car buyers ≤ 45-years-old: 31%
- 40 million used vehicles sold per year
  - ~ 10% cycled from new cars
  - Percent of used car buyers ≤ 45-years-old: 38%

Sources: Bureau of Transportation Statistics; Hedges & Company; Statista
Potential Lives Saved with Reminder Only Systems

(8.8% New Cars per Year)

Potential Lives Saved: 295

1 Over this 20-year period with no mitigation, there would be on average 755 PVH deaths. % saved = 39%
Potential Lives Saved with Detection Systems

(8.8% New Cars per Year)

Potential Lives Saved: 559²

² Over this 20-year period with no mitigation, there would be on average 755 PVH deaths. % saved = 74%
Potential Lives Saved with Detection Systems

(New Cars Bought by Ages ≤ 45-years-old)

Potential Lives Saved: 216

Over this 20-year period with no mitigation, there would be on average 755 PVH deaths. % saved = 29%
Potential Lives Saved with Detection Systems

(New/Used Cars Bought by Ages ≤ 45-years-old)

Potential Lives Saved: 225

4 Over this 20-year period with no mitigation, there would be on average 755 PVH deaths. % saved = 30%
SUMMARY

- Technology will save lives, but not enough given that less than a third of new cars are sold to persons likely to have children.

- Even after 20 years of detection technology implementation, only about 30% of the potential deaths will be saved.

- Not only is the age demographic of new car buyers a factor in the deployment of these life-saving technologies, but the historically the last people to get new cars/technology are those in traditionally underserved portions of our society.
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CONCLUSION

Efforts to curb the deaths of children due to Pediatric Vehicular Heatstroke (PVH) need to be multi-layered as there is not single solution to this problem. These need to include continued education and awareness as well as the deployment of effective technologies, both in new vehicles and also via aftermarket solutions.