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Addressing Access To + Installation Of Appropriate Child Safety Seats Within Fairfield County

Ally Sarkis
Family Medicine Rotation
Newton CT, August 2022



The University of Vermont
LARNER COLLEGE OF MEDICINE

Description of Need:

Project's Focus + Goals

- **Cultural Competency** – address culture + literacy barriers surrounding CT car seat laws and the proper installation technique.
- **Social Determinants of Health** – helping those who may not be able to afford a child safety seat obtain one.
- **Medical Practice Transformation** – aid physicians in providing better holistic care that recognizes the needs of some families within our community.

Why is this needed?

- Motor vehicle crashes account for nearly 50% of all fatal injuries in children and adolescents.¹
- Child safety seats reduce mortality from motor vehicle crashes by 71% in infants younger than one year, 54% in children one to four years of age, and 45% of those five years and older.¹
- From 1975 to 2017, an estimated 11,606 lives were saved by child restraints for children under 5 years old in passenger vehicles.³
- However, studies show that 9/10 car seats are installed incorrectly within the United States. Furthermore, it has been reported that 4/5 car seats are installed incorrectly within the state of Connecticut.⁴
- Given the evident reduction in mortality using a child safety seat, it is important that families have access to car seats and are informed about their proper installation techniques or know where to receive assistance if needed.



Public Health Cost:

- Of the 23,551 passenger vehicle occupants killed in 2017 in fatal crashes, 794 (3%) were children. Based on known restraint use, of these 794 child occupant fatalities, 267 (37%) were unrestrained.³
- In 2017, of the 39,822 passenger vehicle occupants who survived in fatal crashes, 4,700 (11.8%) were children. Of these 4,700 child passenger vehicle occupants who survived in fatal crashes, restraint use was known for 4,490, of whom 509 (11%) were unrestrained.³
- Analysis has shown that among children under 5 years old, an estimated 325 lives were saved in 2017 by restraint use.³
- At 100-percent child safety seat use for those under 5 years old, an estimated 371 lives (an additional 46) could have been saved in 2017.³
- Local police stations and hospitals were contacted regarding Connecticut and Fairfield County specific statistics; however, no response was received.



Community Perspective on Issue:

Elizabeth Sagan, Safe Kids – Connecticut Children’s Branch

- “There is a large need for car seats in Connecticut. A lot of families are not in a position to purchase one for themselves. We give away a lot of car seats every year.”
- “We say 4/5 car seats are installed incorrectly. That really seems to be on target from what I’ve seen. I’d say 9/10 car seats are installed incorrectly when I evaluate them at a car seat safety check.”

Peter Deandreato, Nuvance Child Passenger Safety Program

- “The statistics suggest that 9/10 car seats are installed improperly, which hasn’t changed much over the course of my 20 years’ experience. This likely is because we previously checked car seats more often when people thought they were ‘harder’ to install. Now, with car seats being advertised as easier to install, people are falsely confident that they’re doing it correctly.”
- “A lot of families don’t know that there are programs within the community that are available to help. Some families might not even realize that they’re installing seats incorrectly and that they may need help. There’s also some evident cultural differences. During my time as a police officer, I saw many kids unrestrained simply because the countries where they previously lived did not require child restraints.”
- “Nuvance just received a large grant from *Buckle Up for Life* where we will be able to distribute 150 car seats within our community. I expect to give away all 150 seats as there is a clear need within our area.”



Intervention and Methodology:

1. INTERVIEW

- Interviews were continued with knowledgeable community members to assess the general needs of the area. During the interview, interviewees were asked to provide credible resources to develop an informational pamphlet to distribute in medical clinics within the area.

2. ASSEMBLE PHAMPLET

- An informational pamphlet was created after assessing the needs of the community. From the interview sessions, this pamphlet includes information pertaining to the 4 areas identified as needing further assistance including: Connecticut car seat laws, online child passenger safety education, community car seat distribution programs and local car seat fitting stations.

3. IMPLEMENTATION

- The pamphlet will be distributed amongst various family medicine and pediatric clinics within the area. Providers will be encouraged to distribute these to families at each well-child check, along with the usual developmental handouts. Response results can then be assessed.



Response Results:

- As an ongoing project this pamphlet will be shared and discussed with parents and families during well-child visits.
- There was inadequate time allotted to collect data during the scope of this project. The ideal results would demonstrate an increase in properly restrained children within the appropriate child safety seat.
- Potential ways to evaluate effectiveness include:
 - Random car-seat checks by providers, looking for proper restraint + installation.
 - Conduct family survey's regarding use + helpfulness of resources provided.
 - Partner with local fitting stations to assess whether those provided with the pamphlet attended an appointment.



Evaluation of Effectiveness:

- Time constraints were a major limitation to this project.
- Potential difficulty engaging providers to use + distribute the informational pamphlet to parents + families seen during well-visits.
- Few methods were previously discussed for the potential evaluation of this project; however, assessing the effectiveness of the informational pamphlet would be difficult given asking providers to perform random seat checks, relying on patient-reported access to the resources provided, or attempting to partner with several fitting stations within the community.
- While the pamphlet may be helpful to some, it is mainly accessible to those who speak and read in English.



Future Interventions:

This Project

- Assess the need to translate to other languages.
- Assess presence and usage of informational pamphlet within the community.
- Evaluate the response to this intervention and assess its efficacy.

Future Projects

- Creating an informative document of places within the community that offer free or heavily discounted car seats to everyone who may need assistance, not just those who qualify as 'low-income.'
- Creating an informative document for providers within the community on how to become a certified car seat technician, where to become a certified car seat technician and the benefits of doing so.



References:

1. DeGeorge KC, Neltner CE, Neltner BT. Prevention of Unintentional Childhood Injury. *Am Fam Physician*. 2020 Oct 1;102(7):411-417. PMID: 32996759.
2. Durbin DR, Hoffman BD, AAP Council on Injury, Violence, and Poison Prevention. Child Passenger Safety. *Pediatrics*. 2018; 142(5):e20182460
3. NHTSA's National Center for Statistics and Analysis. (2019). *Traffic Safety Facts: 2017 Data*. Washington, DC; NHTSA.
4. Safe Kids Connecticut. (2017). *Safe Kids Booster Brochure*. Hartford, CT; Safe Kids Connecticut.



Interview Consent:

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Consented –

Name: Elizabeth Sagan, consent provided via telephone interview

Name: Peter Deandreatano, consent provided via telephone interview