SafetyBeltSafe NEWS
March, 2022

Safe System Approach*

Pete Buttigieg, Secretary of U.S. Department of Transportation (DOT), announced departmental plans for a multi-layered approach that assumes humans are vulnerable and make errors so protection needs to be more than exhorting drivers and pedestrians to do better. Safe System has five components to bring all aspects into communication: Safe Road Users; Safe Vehicles; Safe Speeds; Safe Roads; and Post-Crash Care. Although Vision Zero, introduced in 2007 from Sweden at Lifesavers in Chicago, was a driver of believing our goal was to reduce traffic deaths by combined actions, the current spike in deaths on the road is a key impetus. (Comparing January-June 2020 and 2021, there has been an 18.4% increase.) Layering components also reduces silos of traffic safety efforts. (See the effort to bring the risk to child occupants in vehicles with impaired drivers to CPS Technicians (CPSTs) and, to impaired driving reduction professionals, child passenger safety risks in families with someone who drives impaired as an example of such silos.)

Does Safe System work? Data from Spain and Australia show decreases in traffic deaths of 80% and 47% respectively, according to a recent Johns Hopkins University study. The plan focuses attention on equity and less-served areas, such as improving rural services. Redundancy of protection is critical. The impact of traffic on deaths is highlighted since 94% of the transportation-related deaths from 2011 to 2020 were road-related, killing about 350,000 in the U.S. The areas of increase from 2019 to 2020 focus attention on those at risk. These figures lead us toward efforts to engage, for all of them impact children, either directly or through losing significant figures in their lives. Rural areas, containing 19% of the U.S. population and 30% of U.S. road travel, suffered 45% of the fatalities. Moreover, two of five who lived through the crash died, and more than a third of the seriously injured did not go to a trauma center initially although trauma center care is linked with a 25% higher rate of survival.

DOT posits that although traffic death and injury are unacceptable, humans are vulnerable and make mistakes so that every aspect of proactive safety practice is shared by all components of the system and needs redundancy. In child passenger safety, it means not only offering one-on-one safety seat checkups but also encouraging our colleagues in the fields serving families to transmit key, accurate, updated messages. This may mean redefining laws to meet known human development and child fit in vehicles as well as expanding distribution programs and being forthright about the need to counter incorrect use. Simplicity in usage of safety seats is critical since we know there are not enough CPSTs to check a significant portion of the child population.

SBS USA encourages everyone to consider outreach and collaboration as key elements of programs and, in California, we are supported to offer CE-level Webinars for nurses; roll call training for law enforcement; basic educational workshops for those who can engage communities as well as certification trainings and CEU-Webinars to develop and support CPSTs. Our Safe Ride Helpline is a national/international resource for the public and those wanting to join the campaign. In child passenger safety (cps), community outreach has been a tenet, but we must redouble our efforts as COVID-19 still poses challenges to reaching the vulnerable.

**National Roadway Safety Strategy, 1/22 (US DOT) and Putting the Pieces Together (GHSA)*

What's New?

The annual update of Child Restraint Manufacturers' Instructions with Summaries is available!

Online or via USB, more than 400 sets of instructions, each summarized in a consistent format to ensure key points are addressed, are on tap.

SBS USA Members at the Tech Special and above receive access; others may purchase the resource separately. To learn more, call 800/745-SAFE.

Thank You!!

$500 Newell Brands/Graco/ Century/Baby Jogger
And to all our Supporters!
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***SafetyBeltSafe* U.S.A.**

(800)745-SAFE
(800)747-SANO
URL: www.carseat.org
27943 Seco Canyon Rd, #301, Santa Clarita, CA 91350
EXECUTIVE DIRECTOR: Marc Cohen, CPSTI
WRITER: Stephanie M. Tombrello, LCSW, CPSTI Senior Program Consultant
NEWSLETTER EDITOR: Kellie Mzik, MACL
EDITORIAL BOARD:
Marc Cohen, CPSTI
Sean Kane, BA, Safety Research and Strategies, Inc
Annette Knobloch, DNS, RN, MPH
Jim Savage, CPSTI, Special Needs; KIDZ IN MOTION

In the Know

Listen to the podcast of **The Emergency Docs** for an interview with SBS USA Senior Program Consultant Stephanie Tombrello, on current and historical cps recommendations. Theemergencydocs.com

5-Step Test Abroad

For clinical practice guideline in Australia, National Health and Medical Research Council has approved the "5-step test" for correct fit to determine booster need and usage for children up to age 12.

Calendar

TECHNICAL WEBINARS
1 CEU *for California/Malaysia Technicians/Instructors*:
✓**4/7:** 10 - 11:30 am, for CA
✓**5/5:** 10 - 11:30 am for CPS Malaysia

CONFERENCES
✓**3/31-4/3:** CA Association for Nurse Practitioners statewide conference, Pasadena, CA. Registration: By 3/25/22 at https://canpweb.org/events. On 4/2, Stephanie Tombrello, LCSW, CPSTI, will present.

✓**4/25- 26:** NJ CPS Technical Training Conference, Long Branch, NJ. SBS USA will have an exhibit; Stephanie Tombrello will present two 1-CEU workshops.

✓**6/15:** Advances in Child Injury Prevention Conference Center for Child Injury Prevention Studies, Plymouth, MI
Fees vary; $125 for non-profit employees. Registration: https://2022acip.eventbrite.com.

✓**8/24-26:** Kidz In Motion, Orlando, FL. Register at: https://kidzinmotion.org/

SBS USA CERTIFICATION TRAININGS
Sponsor: Los Angeles County Dept. of Public Health and CA Office of Traffic Safety.
Register through SAFE KIDS
Proof of COVID vaccination required.

✓**3/8-11:** Loma Alta Park, Altadena
✓**5/24-27:** Therapeutic Play Foundation, Pasadena
✓**8/16-19:** Artesia Park, Artesia

SAFETY SEAT CHECKUPS
10 am - 2 pm for families
Families can register at 800/745-SAFE or 800/747-SANO ext. #3

9 am - 3 pm for volunteers.
Volunteer checkers register: https://docs.google.com/forms/d/1o6jHnxH2MmBOtgi39dTsGMKCGfHVQknyVWve2OAQ5vA/edit

✓3/11: Loma Alta Park, Altadena, CA.
✓5/27: Therapeutic Play Foundation, Pasadena, CA
✓8/19: Artesia Park, Artesia, CA

You can help *SafetyBeltSafe U.S.A.* save children's lives with your membership or donation.

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* E-mail address is required to receive passwords for access to Recall List and CPS Tech Update.

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__ Check here if you are a Certified Technician or Instructor and want information about CEUs for subscribers.

Check below if you want to receive the following special subscriptions:

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Executive Director's Message

I am proud to be the new executive director of *SafetyBeltSafe* U.S.A. and happy that Stephanie Tombrello, a founder and "book of safety seat knowledge," agreed to stay on as a senior consultant to keep our organization moving forward. Many of you know my background and where my passion for child seat safety arose. In 2002, a driver on meth ran a red light, killing my 21-year-old daughter and 22-month-old grandson. My grandson's safety seat was installed incorrectly, and I wanted to know why. Six months after the crash, I was certified as a Child Passenger Safety Technician. That was 20 years ago. I estimate I have educated parents on the correct use of more than 4,000 seats during my "car seat career."

Do you really know what SBS USA does and the fantastic safety success we have had over the years? We focus on technical accuracy when we advise about safety seat use or check installations for parents and caregivers. Critically, we have helped change federal regulations, mandating rear-seat shoulder-lap belts and saving lockable belt features to hold safety seats tightly in vehicles. We produce a variety of tools, including flyers, posters, and easily-followed safety seat summaries for every seat made in the past ten years.

Building on this wide base, my goal is to streamline the SBS USA experience. We've installed a new telephone system so calls are routed to the appropriate individual for that area. We are working to better organize our new website so materials are more easily accessible. We are scheduled to hold at least two more certification courses and we staff educational booths at safety fairs. Four *SafetyBeltSafe* U.S.A. members just completed the Institution of Occupational Safety and Health course for safety seat educators in the United Kingdom. Three members will attend Lifesavers (National Conference on Highway Safety Priorities) this month in Chicago and the Kidz in Motion conference in August. On a Lifesavers panel in Chicago, Stephanie Tombrello is addressing two issues: often-unrestrained children in cars with impaired drivers and boosters necessary for big kids, 8-12.

Help us grow! Join us with a donation at www.carseat.org, point us to grant sources focused on helping children, or share your professional specialty as a volunteer. Call us at 800-747-SAFE. So many worthwhile ways to help save the lives of children will come to mind.

- Marc Cohen

SafetyBeltSafe U.S.A.
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New seats

The new **Dorel** Grow and Go Extend 'n Ride is a convertible/combination seat for children 5-40 lbs. facing rear, 22-65 lbs. forward facing with harness, and 40-100 lbs. in highback booster mode. The new feature of this Grow and Go model is an adjustable footrest that may be used in all three modes. The head and body pillows must be used together and only in rear-facing mode. The harness has a no-rethread adjustment mechanism except for the lowest slots, where the harness must be threaded below the metal adjustment bar on the back of the safety seat. There are three buckle strap slots. Recline positions 2 and 3 may be used rear facing. For children who cannot sit unassisted, the level line must be parallel to the ground. If necessary to achieve a flush installation, position 1 or 2 may be used forward facing in both harness and booster modes. The seat has hook-on lower connectors and no lockoff. It expires ten years after the date of manufacture.

The new **Goodbaby Evenflo** All4One and All4One DLX are 4-in-1 child restraints that accommodate children 4-40 lbs. rear facing, 22-65 lbs. forward facing with harness, and 40-120 lbs. in highback or backless booster modes. The seats feature a 12-position, no-rethread harness and push-on lower connectors with an EasyClick tightening mechanism on one connector. There are rear-facing and forward-facing belt "lockoffs," but the safety belt still must be locked or, with a pre-1996 belt system, a locking clip used. Recline positions 1-4 may be used rear facing; position 5 is used forward facing for children over 40 lbs. and in booster mode; and position 6, forward facing for children 22 lbs. or more and in booster mode. The cupholders always must be installed, while head and body pillows, used in rear-facing mode only, are optional. The 10-year-expiration date is on the date-of-manufacture label. The chest clip is equipped with SensorSafe* technology which alerts the caregiver if the chest clip is opened during travel and/or the child is not removed from the safety seat at the destination. *(*See SensorSafe, pg 6.*)

Orbit Baby released the Toddler G5, a convertible safety seat almost identical to the earlier Toddler G3. It is for children rear facing 15-35 lbs. and forward facing 25-65 lbs. In rear-facing mode, installed with the separately purchased G5 base, the seat may be swiveled for easier placement and removal of the child. For both forward-facing and rear-facing installation without the base, side-impact braces must be attached at the bottom sides of the shell. The re-thread harness has four positions: lower three for rear-facing use, upper three for forward-facing use. The headrest is attached with hook and loop fasteners and must be adjusted to fit the harness height. The seat features rear-facing and forward-facing lockoffs as well as push-on lower connectors. There is no recline mechanism on the seat; a rolled towel may be used to achieve the proper rear-facing recline indicated by a ball-style recline indicator on the side-impact braces. An optional sunshade is included. The expiration date is on the product information label behind the rear access panel of the seat.

The new XS version of **Safe Traffic System** Ride Safer Travel Vest accommodates children 22-40 lbs. and at least 2 years old. Unlike the larger versions of the vest, the front hook closure on the XS version is on the child's chest. The vest may be used with a top tether but must be tethered for use with a lap-only belt. The head pillow and crotch strap are optional. For best protection, the manufacturer recommends using the vest with the TravelSmarter Booster for children ages 2 to 4. Expiration is 10 years after the date of manufacture.

How Legislation Affects Deaths, Restraint Use, and Correct Usage

An analysis* of peer-reviewed articles, worldwide, conducted by Sartin, Lombardi, and Mirman (*Injury Prevention*, 2021), considered effects of legislation and policy on outcomes for children from birth-12 and birth-18, depending on the target populations assessed. From five countries,** 19 studies met the criteria.

The first category the researchers examined for change was legislative effect on the use of child restraints. Dramatic changes occurred in some localities for children 5-to-8 years old. In New York, after the 2005 law, a 72% increase in seat use was seen for kids 4-6 years old. A pre-post study in five states with new laws saw a three-fold improvement. A review of FARS*** data between 1999 and 2009 showed substantial changes in restraint use in fatalities. Both New Zealand and Canada saw positive change from legislation.

Seeking input on correct child restraint use, either by legal definition or self-report, positive effects also stemmed from legislation. Winston et al. (Children's Hospital of Philadelphia) found correct use 39% more likely in booster-law states. Canadian reports likewise found improvement; in Nova Scotia, correct selection jumped from 74% to 92% for forward-facing seats and from 58% to 92% for booster use. Australian studies in lower socio-economic areas of Sydney, e.g., saw improvement in use; however, premature movement to boosters or belts-only for 3-year-olds also was seen. Incorrect use continues to be high as has been documented by SBS USA over the years. In 2016, Koppel et al. examined more than 2600 fittings, finding 79% with at least 1 error.

The authors cited the study by Brixey et al. in Milwaukee which indicated how differently legislation affected families identified by racial/ethnic, socio-economic communities. As the law increased coverage, the white community saw an increase of appropriate booster use from 28% to 48%, but Black caregivers went from 18% to 7% while Latino families stayed at 10%, with many transitioning to boosters too soon. The need for focused messaging was stressed. In addition, the issue of reflecting what one sees from one's peers seems to be a critical factor as Milwaukee had major ethnic separation in housing. Similar findings in Tennessee showed that improving the law for 4-to-8-year-olds led to a 10% increase in correct booster use. When the findings were analyzed in depth, there was no change for Black children who remained twice as likely to be unrestrained as white children; indeed, inappropriate booster use increased for children younger than 4. The Canadian study by Snowden indicated that increased restraint usage occurred, but only 60% were riding correctly as defined by size and manufacturers' instructions.

Injury and fatality data are critical indicators of the success of legislative interventions. A report on New York children 4-to-6 years old showed 18% reduction in the injury rate but no effect on children under 3. A five-state study of injury rates for children covered by enhanced legislation found a 5% reduction in injury rate for the "booster-required" children and a 17% reduction in death/serious injury.

A U.S. study looked at effects of booster-age laws, finding reductions based on the ages to which the various state laws applied: 4-5, 6, or 7-year olds. For most states, the age range listed conveys incorrect information to the public since few children at age 8 actually fit in safety belts only. Only Louisiana has shifted to the 5-Step Test as an easily taught method for ascertaining correct belt fit without a booster. Looking at this issue from various angles, researchers have shown the importance of giving correct guidelines as part of laws.

For example, in California, there is a push to improve the specificity of the law which already requires "correct fit" but does not define that effectively since knowing only the height of the child without the parameters of the vehicle cannot answer the question. In addition, in California, the back seat is required to age 8 when labels in every vehicle list age 13 as appropriate for front seat travel.

As cps advocates consider steps to improve the protection of children on the road, the areas of concern noted here—targeted messaging, clear recommendations, and education supportive of effective enforcement and shared with community agencies where caregivers serve families --can mitigate the misunderstandings that make the laws more or less effective in protecting children's lives.

** Sartin, EB, Lombardi, LR & Mirman, JH 2021, 'A systematic review of child passenger safety laws and their associations with child restraint system use, injuries, and deaths' Injury Prevention. 2021*
*** U.S., Australia, Canada, Chile, New Zealand*
**** Fatality Analysis Reporting System*

SensorSafe

SensorSafe is the Evenflo safety seat emergency alert system which can detect four potential risks in the car if the system is set up on a mobile app and the "dongle" attached to the car.

Risks monitored are the chest clip unbuckled in transit; the car either too warm or too cold; the child has been seated too long; or is left unattended, which triggers an alert to the mobile phone followed by alerting designated emergency contacts.

Even if the mobile app is not set up, the new version (white), like the original (black), reminds each time the vehicle is turned off but the chest clip is still buckled *or* if the clip is unbuckled in transit. Unbuckle the clip when on aircraft and, to save the battery, when not in use.

Rear Seat Safety Gaps

Consumers Union (CU) is setting up a multi-phase assessment of the safety features of vehicle rear seats for all ages. For improved belt fit, CU checks for shoulder belt height-adjustment systems and the availability and persistence of belt usage reminders.

(SBS USA first petitioned for *center* rear shoulder-lap belts in 1988; it took 20 years to get Congress to insist it become a regulation!)

Systems to reduce risk to potential heatstroke victims are rated by their focus (reminders vs. alarms). Side air bags are evaluated for torso and hip coverage as well as overall protection in side impacts. Eventually, protection in far-side and frontal impacts through air bag inflation will be included.

CU expects that rear-seat features will be included in all their future vehicle assessments. For now, it is a separate reporting area.

Make Your Voice Heard

Under the TREAD ACT of 2000, National Highway Traffic Safety Administration (NHTSA) is required to enhance protection of children ages 4 to 8 transported in motor vehicles. In a biennial survey, the restraint use of children 13 and under is observed. All observations of children in the vehicles note restraint use and estimated age and, in prior surveys, a subset of about 5,300 brief interviews with adults with children in their vehicles have been conducted nationwide.
The interviews elicit more detail about age, size, and ethnicity to get a sense of prevalence of use/non-use/non-ideal use of occupant restraint systems in the country. The goal is to help NHTSA prioritize messaging and programs to fulfill the 2000 law to enhance protection for "booster kids." In addition, the data may encourage state governing bodies to improve their current child passenger safety laws.

Anyone may make a comment on the proposal by April 18, 2022. Go to www.regulations.gov and enter NHTSA-2022-0009 to read the information, download more detailed material, and comment.

SBS USA agrees that NHTSA needs to collect data throughout the country and sees the importance of the consistency of collection processes. However, in 2000, the safety seats available were quite different from those available today. In SBS USA messaging, we encourage use of seats with internal harnesses to about age 6 and boosters until the child can pass the 5-Step Test for belt fit, which, according to research, occurs between ages 10 and 12. Age 12 in girls and 14 in boys mark early development of the iliac crests of the hip bones, making it possible to keep the lap belt from riding into the abdomen. Fortunately, there are safety seats that cover children to 65 lbs. with a harness and boosters that are rated to 120 lbs.

In our opinion, the emphasis in the survey should go beyond focus on booster use for ages 4 to 8 and look into the patterns for ages 8 to 13 within the effort. Would any of the interviewees try the 5-Step Test on children who are not using boosters to demonstrate fit? This might be an interesting sub-section of the research project.

In addition, during the interview segment, it would be useful to record how the height and weight figures are elicited and how many adults do not have that information immediately to hand. Although it is easy to compare numbers, height in relation to fit in vehicles depends on where the height is on the child—torso or thighs—because those aspects strongly affect fit in the wide range of vehicle seats and belt systems available. That is why a brief 5-Step Test might reveal the predictability of height to fit in a consistent fashion. If the vehicle is recorded, it is possible as well to relate this aspect of the survey to the type of vehicle as did a published research project.

In summary, the survey is a valuable addition to collecting useful information. However, to be responsive to the present-day circumstances, it is important to prioritize gathering information on the children least likely to be using the appropriate restraint system, based on other research studies.