# Child Safety Seat Observation Survey Guide 



## February 2012

This child safety seat observation survey guide was adapted from the Indian Health Service Ride Safe Program (http://www.ihs.gov/injuryprevention/index.cfm?module=toolbox\&option=ride ) Program Guide, originally developed by a team of staff from the Indian Health Service and University of North Carolina at Chapel Hill. The Ride Safe program is also described in a July 2008 Maternal \& Child Health Journal article:
http://link.springer.com/article/10.1007\%2Fs10995-008-0332-6.

This adapted guide was developed by UNC staff as a technical assistance tool for Tribes/Tribal organizations conducting child passenger safety initiatives for the Centers for Disease Control \& Prevention's 2010-2014 Tribal Motor Vehicle Injury Prevention Program (http://www.cdc.gov/features/tribalprograms/index.html).

Robert J. Letourneau, MPH \& Carolyn E. Crump PhD
Department of Health Behavior
Gillings School of Global Public Health
The University of North Carolina at Chapel Hill

## Child Safety Seat Observation Survey GUIDE

## A. Introduction

Many Injury Prevention Programs are interested in monitoring child passenger safety seat use over time to determine the impact of the child passenger safety activities. For example, an IP Program coordinator should be very interested to learn if various educational and enforcement activities (e.g., posters, PSAs, child passenger safety checkpoints/clinics) are having an impact on changing community members' behaviors regarding using child passenger safety seats.

This Child Safety Seat Observation Survey Guide was originally developed for the Indian Health Service's child passenger safety program called Ride Safe. Ride Safe is a Tribal Head Start Centerbased child passenger safety program that combines education and the distribution of child passenger safety seats to the families of Head Start aged children.

Information in the original Ride Safe guide has been modified to help Tribal Injury Prevention Program coordinators in American Indian/Alaska Native communities make decisions about assessing child safety seat use rates in their communities.

The purpose of this Guide is to provide instructions on conducting child safety seat use observational surveys. The surveys described in this guide help to document the use of child safety seats. They are not used to determine if the restraints are being used correctly. Child Safety Seat 'check' events are used to assess proper use and, if necessary, make corrections to those using child safety seats incorrectly.

## Section I: Planning Child Safety Seat Observations

## A. Assemble Observation Team \& Equipment

You will need the following resources to conduct observations:

- A vehicle: you will make most observations from a motor vehicle; you will also need the vehicle to drive to the observation site.
- Watch: Observers will record the observation start and end times on the observation form. A watch will help you keep track of time and let you know when 45 minutes is complete.
- Copies of observation form: the complete observation form has space for over 90 observations (make additional copies, as necessary).
- Pencils: bring at least a couple of pencils with erasers.
- Clip Board: this will make it easier to fill out the observational survey form

It is often better to have two individuals conduct the observations. One individual to act as a 'spotter' and a second to act as the 'recorder'.

- A spotter is someone who observes the cars as they pass and calls-out aloud what s/he sees regarding restraint use.
- A recorder is someone who records the information called out by the spotter on to the observation form.


## B. Determine Observation Locations, Time, and Length

When conducting child passenger safety seat use observational surveys to assess the impact that your program activities are having on behavior change, it is important to standardize the sites and times of observations. Using standardized sites, times, and observation methods will allow program staff to compare usage rates over time.

It is almost impossible to observe many locations across the entire community. Therefore, the suggestions on the following pages for selecting observation sites are specific to a particular garget group.

## 1. Selecting Observation Locations

Injury Prevention Program Coordinators are encouraged to identify and use at least three observation sites when conducting safety seat observations. Depending on your target group, you may need to collect observations at additional locations.

Consider the following general criteria for selecting the three sites:

- Likelihood of observing cars that will have child passengers (i.e., children ages 0 to six years of age).
- Likelihood of being able to observe child passenger safety seat use (i.e., in locations where traffic slows or comes to a complete stop).
- Likelihood of being able to observe local parents (i.e., at a location with limited 'thru-traffic' from outside the community).
- To achieve this, the location should be away from roads that receive heavy traffic (main State Highways) from outside the Reservation community.
- Ability to clearly see in the vehicles being observed (i.e., views that are not obstructed by trees, buildings or other structures).
- If possible, select a location where vehicles will stop or traffic is slow, such as a stop sign or stop light. This would be beneficial because you will have more time to observe passengers in slow or stopped vehicles compared with vehicles traveling at high speed.

The following list of possible observation sites may fit the criteria listed above:

- Head Start Center
- W.I.C. Office
- Health/well-child clinic
- Daycare centers
- Local convenience/grocery store parking lot
- Local fast food restaurant parking lot
- Community events geared toward children (e.g., Halloween costume events, Easter egg hunt events).

Important note: Depending on the locations you select to conduct child safety seat observations, a vehicle off to the side with people inside watching other vehicles can draw attention and perhaps alarm. Therefore announcing and/or asking for permission to observe from a decision-maker (i.e., Head Start director, Grocery Store Manager, Day-care center director) is usually advised. In some cases, they may want to tell parents that observations will be occurring. If so, it would be best if they would not reveal the specific dates the observations will occur, otherwise child restraint use may be 'inflated' if parents know ahead of time that they will be observed.

## 2. Selecting Observation Times

It is also important to conduct observations at sites selected at times of day when you expect to see children.
For example, an observation that takes place in the morning hours (e.g., 7:00-9:00 am) may include more observations of children than an observation conducted during the day on a weekday. Using the same logic, there will probably be fewer children traveling in vehicles during the evening hours, as many children have earlier bedtimes.

## 3. Selecting Observation Length

Other child passengers safety programs (e.g., the IHS Ride Safe Program) recommend that observations are based on time, rather than the number of children that can be observed. Due to the remoteness of some of the observation sites that are available in American Indian/Alaska Native communities, it may not be possible to observe a large number of vehicles in a given time frame.

Even if you only observe a small number of vehicles with children at one location, you should observe each site for only 40 minutes. At any given observation site, if you observe only a few children, it may be worthwhile adding an additional site (above the 3 already selected) to your data collection plan rather than extending the 40-minute time period.

## 4. Choosing an Observation Form

This guide provides two types of child safety seat observation forms that can be used to assess usage rates.

The first form enables a program to asses child safety seat use by two age groups: Infants (ages 0 to 2 years); and Toddlers (ages 3-6 years). It can be useful to collect information by age group because depending on results, an IP Program's educational and/or enforcement activities could be tailored toward the age group that has the lowest use rates.

If the observer has prior working experience with children (teacher, babysitter, parent, etc.), they already have a fundamental awareness of the size range for children under 2 and between 3 and 6 years of age. If not, determining the age of a child during an observation may be challenging. Regardless of experience, however, there are some useful ways of trying to assess age ranges of children from a distance. To be the most prepared, observers are encouraged to practice estimating the ages of children.

One way to help staff determine a child's age is estimate the average height and weight for children between 0 and 2 and between 3 and $51 / 2$ using standard growth rate charts. Growth charts provide a comparison of children's ages, heights and weights and can be used to familiarize observers with the basic sizes of the children being observed.

The summary table below provides height and weight measurements infants (under 2 years) and toddlers (between 3 and $51 / 2$ years) at the $50^{\text {th }}$ percentile (i.e., average). (Note: at these age categories, there is not a lot of difference on average in height and weight between girls and boys, thus the table does not differentiate gender).

Average Height \& Weight based on CDC Growth Charts

| Infants (less than/equal to 2 Years) | Toddlers (3-5 $1 / 2$ Years) |
| :---: | :---: |
| Average = appx. 3 Feet and appx. 30 lbs | Average $=$ appx. 4 Feet and 45 lbs |

The second form enables a program to assess child safety seat use across multiple child age groups (i.e., ages 0 to 5). Because an IP Program's educational and enforcement activities may not be geared to a particular child age group, collecting child safety seat use across all ages may be sufficient to document/assess behavior change in child safety seat usage. TMVIPP PROJECTS ARE ENCOURAGED TO USE THIS FORM.

## Section II: Conducting Observations

## A. Things to Remember While Conducting Observations

## Be Inconspicuous:

To obtain a valid, unbiased observation of child safety seat use in your community, observers should strive to remain inconspicuous (i.e., not easily seen or noticed) in order to avoid biasing (altering) the survey results. If you are conducting an observation from within a parked vehicle, the best type of vehicle is a personal vehicle or an unmarked vehicle. This may be particularly important if the observer is someone familiar with the children being observed.

## Safety:

Your safety should be your first priority while conducting observational surveys. Do nothing that may put you in any kind of danger, such as getting out of the vehicle, standing near the road, or parking your vehicle too close to the road. Inform your local police department of the times and locations of observations so that officers are aware of what you are doing.

## B. Completing the Observation Form(s)

At the top of the Survey Form(s), the following information should be documented:

1. Observation Location (provide complete address).
2. Position at Location (position at which vehicle were observed at location).
3. Type of Location
4. Observer Name
5. Observation Date.
6. Observation Start Time.
7. Observation End Time.

Important note: when indicating the Observation Location and Position at Location, observers need to be very specific about the location description. Follow-up observations (conducted at later dates) will need to be conducted and they need to be done from this same location. By providing the exact address, you will make the follow-up observation possible.

The purpose of the survey is not to determine if the restraints are being used correctly, but rather, to document the use of child safety seats or seatbelts. Therefore, these observational survey instructions do not require you to stop a vehicle to check to see if a child restraint is being used correctly.

Using the forms provided, you are making observations of each child you observe. You are not recording the number of cars you see, but rather, you are documenting use or non-use of car safety seats for each child that you observe. You will likely record information about a larger number of children you see than the number of cars that you see. When using the Observation Survey Form, record each child separately in the appropriate row.

The forms provided to conduct child passenger safety seat use observational surveys allows you to document in a 'comments' column - unique characteristics of each observation. For example, if you note that a child is in
a child safety seat but you believe the seat is in an inappropriate location in the vehicle (e.g., in the front seat), you can document this on the form.

You could use the following glossary of terms when including information in the 'comments' column on the observation form:

- W: child safety seat was in the wrong location
- FF: child safety seat was front-facing
- RF: child safety seat was rear-facing
- FS: child safety seat was in the front seat
- BS: child safety seat was in the back seat

Page 7 provides two example scenarios to practice recording information. Reading these examples should help you when completing the observation form(s).

Pages 8-10 provide Child Passenger Safety Seat Use Observation Forms to collect your data.
The first form (pages 8-9) allows you to collect data by age group: Infants (Birth to 2 years) and Toddlers (3 to $5 ½$ years).

The second form (page 10) allows you to collect data for all age groups: 0-5.5 years.

Select the form that will be most appropriate for your IP Program to use (i.e., the form that best matches the focus of your program activities to increase child passenger safety seat use.

Example 1: Your first car approaches and you observe an infant in the front passenger seat in a child safety seat and two unrestrained older children in the back seat. The older children look to be 3.5 and 4 feet in height, respectively. You would mark your form as follows:

| Infants: Birth to 2 years |  |  |  | Toddlers: Age 3-5 years |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Infant | Restrained | Unrestrained | Comments | Toddler | Restrained | Unrestrained | Comments |
| 1 | X |  | Seat in wrong location (front seat): WFS | 1 |  | X |  |
| 2 |  |  |  | 2 |  | X |  |

Answer: You would mark the restrained box for infant in the carseat in the front passenger seat, indicate in the 'comments' box that the seat was in the wrong location in the car (i.e., not the back seat), and then mark the unrestrained boxes for the two older children. Remember: You are not recording observations by car, you are looking at this by child, so you would record information about each child. In this case, that represents rows 1-2 on the form.

Example 2: You're watching the same intersection, and the next car approaches. You observe five children in the car. Three children appear to six or older (i.e., they are above 4.5 feet and 60 pounds). The two younger children (between 3 and 3.5 feet) are not restrained. Continuing with the same form (note: you already recorded the children from Example 1 above), you would make the following new recordings (shaded):

| Infants: Birth to 2 years |  |  |  | Toddlers: Age 3-5 years |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Infant | Restrained | Unrestrained | Comments | Toddler | Restrained | Unrestrained | Comments |
| 1 | X |  | Seat in wrong location (front seat): WFS | 1 |  | X |  |
| 2 |  |  |  | 2 |  | X |  |
| 3 |  |  |  | 3 |  | X |  |
| 4 |  |  |  | 4 |  | X |  |

Answer: You would mark the two toddlers as unrestrained (shown shaded). You do not record information about the older children.

Observation Location (provide complete address):
Position at location (where vehicles were observed):

| Type of Location: | $\square$ Head Start | $\square$ Store | $\square \quad$ Health Clinic | $\square$ Day Care | $\square$ Other: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name of Observer: |  |  |  |  |  |
| Observation Date: |  | Start Time: |  | End Tim |  |



| Infants: Birth to 2 years |  |  |  | Toddlers: Age 3-5.5 years |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Infant | Restrained | Unrestrained | Comments | Toddler | Restrained | Unrestrained | Comments |
| 26. |  |  |  | 26. |  |  |  |
| 27. |  |  |  | 27. |  |  |  |
| 28. |  |  |  | 28. |  |  |  |
| 29. |  |  |  | 29. |  |  |  |
| 30. |  |  |  | 30. |  |  |  |
| 31. |  |  |  | 31. |  |  |  |
| 32. |  |  |  | 32. |  |  |  |
| 33. |  |  |  | 33. |  |  |  |
| 34. |  |  |  | 34. |  |  |  |
| 35. |  |  |  | 35. |  |  |  |
| 36. |  |  |  | 36. |  |  |  |
| 37. |  |  |  | 37. |  |  |  |
| 38. |  |  |  | 38. |  |  |  |
| 39. |  |  |  | 39. |  |  |  |
| 40. |  |  |  | 40. |  |  |  |
| 41. |  |  |  | 41. |  |  |  |
| 42. |  |  |  | 42. |  |  |  |
| 43. |  |  |  | 43. |  |  |  |
| 44. |  |  |  | 44. |  |  |  |
| 45. |  |  |  | 45. |  |  |  |
| TOTAL |  |  |  | TOTAL |  |  |  |
|  | 11 | 12 |  | T1 |  |  |  |


| Total \# of Infants observed to be restrained $=$ ____ (11) | Total \# of Toddlers observed to be restrained: ____ (T1) |
| :---: | :---: |
| Total \# of Infants observed to be unrestrained $=\ldots$ | Total \# of Toddlers observed to be unrestrained: ____ (T2) |
| Percent (\%) of Infants Restrained = __ 11 Divided by ( $11+12$ ) | Percent (\%) of Toddlers Restrained $=\ldots \ldots$ T1 Divided by ( $\mathrm{T} 1+\mathrm{T} 2$ ) |
| Total \# of Children Restrained: ___ $11+\mathrm{T} 1$ | Percent (\%) of Children Restrained: ___ ( $11+\mathrm{T} 1)$ / ( $11+12+\mathrm{T} 1+\mathrm{T} 2)$ |

Child Passenger Safety Seat Use Observation Form \#2 (All Ages)
Observation Location (provide complete address):
Position at location (where vehicles were observed):

| Type of Location: | $\square$ Head Start | $\square$ Store | $\square$ Health Clinic | $\square$ Day Care | $\square$ Other: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name of Observer: |  |  |  |  |  |
| Observation Date: |  | Start Time: |  | End Tim |  |


| Child | Restrained | Unrestrained | Comments | Child | Restrained | Unrestrained | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. |  |  |  | 26. |  |  |  |
| 2. |  |  |  | 27. |  |  |  |
| 3. |  |  |  | 28. |  |  |  |
| 4. |  |  |  | 29. |  |  |  |
| 5. |  |  |  | 30. |  |  |  |
| 6. |  |  |  | 31. |  |  |  |
| 7. |  |  |  | 32. |  |  |  |
| 8. |  |  |  | 33. |  |  |  |
| 9. |  |  |  | 34. |  |  |  |
| 10. |  |  |  | 35. |  |  |  |
| 11. |  |  |  | 36. |  |  |  |
| 12. |  |  |  | 37. |  |  |  |
| 13. |  |  |  | 38. |  |  |  |
| 14. |  |  |  | 39. |  |  |  |
| 15. |  |  |  | 40. |  |  |  |
| 16. |  |  |  | 41. |  |  |  |
| 17. |  |  |  | 42. |  |  |  |
| 18. |  |  |  | 43. |  |  |  |
| 19. |  |  |  | 44. |  |  |  |
| 20. |  |  |  | 45. |  |  |  |
| 21. |  |  |  | 46. |  |  |  |
| 22. |  |  |  | 47. |  |  |  |
| 23. |  |  |  | 48. |  |  |  |
| 24. |  |  |  | 49. |  |  |  |
| 25. |  |  |  | 50. |  |  |  |
| TOTAL |  |  |  | TOTAL |  |  |  |

Percent (\%) of Children Restrained = Total Number of Children Observed Restrained / Total Number of Children Observed.

