

## **CHAPTER 1: INTRODUCTION**

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## BACKGROUND INFORMATION

The Safe Routes to School Program is international in scope. In the 1970s, Denmark experienced an alarming rate of child fatalities due to pedestrian/vehicle accidents. In response, Denmark began working with communities and school districts to create a Safe Routes to School (SRTS) Program. Word of the SRTS initiative took hold and spread throughout the world to Europe, Australia, New Zealand, and the United States.

The United State's first SRTS program was started in Bronx, New York in 1997. The SRTS program in the Bronx received funds to reduce the number of child accidents and fatalities around schools. In 1998, the National Highway Traffic Safety Administration (NHTSA) funded two pilot SRTS Programs funded in Marin County, California and Arlington, Massachusetts.



In 2005, Congress recognized the value of the SRTS Program and passed federal legislation to establish a National Safe Routes to School Program. The Federal transportation bill, SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) was signed into law in August 2005, designating funds for each state for the SRTS Program. These funds were distributed to each state based on their school enrollment and were then used by communities and school districts to implement their recommendations through infrastructure and non-infrastructure funds. The funds can only be used for projects within two miles of an elementary or middle school (currently the program only funds projects for K-8<sup>th</sup> grade).

In 2008, the Wisconsin Department of Transportation (WisDOT) conducted their second grant cycle for SRTS planning grants, infrastructure grants, and non-infrastructure grants. WisDOT funded 38 infrastructure, non-infrastructure, and planning projects with funds totaling nearly \$3 million. Of the 38 projects, there were 18 planning projects awarded and 28 infrastructure and non-infrastructure project awarded. The Town of Grand Chute Safe Routes to School Task Force was awarded a Safe Routes to School Planning Grant.

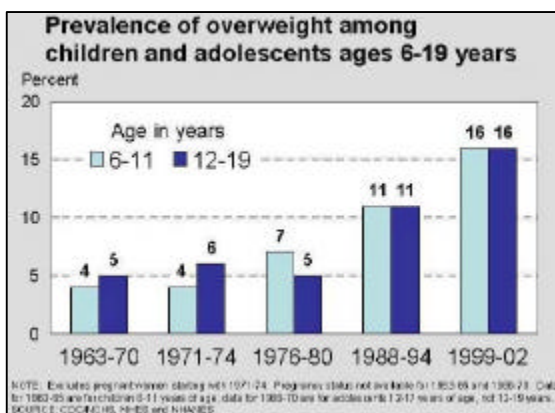
## NATIONAL TRENDS

There are Safe Routes to School programs across the country. Each of these programs has focused on the issues and concerns in their community at large or specifically around their schools. However, there are a few trends that have been consistent with SRTS programs nationwide. These trends include a reduced rate of physical activity for school-aged children, increased traffic congestion around schools and on the roadways, and the changing land use trends. Thirty years ago approximately 90% of the students who lived within one mile of the school walked or biked to school (USDOT, 1972). This number has dropped dramatically over the past 30 years.

### Physical Activity

In 1969, approximately half of all U.S. school aged children walked or bicycled to or from school. This number plummeted to approximately 17% today. The number of hours of physical activity that a child partakes in every day/week has also decreased. The Center for Disease Control reported that nearly half of American young people aged 12-21 years are not vigorously active on a regular basis. Approximately 14% of young people report no physical activity (CDC, 2007).

Over the past 20 years, obesity rates in adults and children have increased dramatically. The National Health and Nutrition Examination Surveys (NHANES) show an increase in overweight children aged 6-11 years from 6.5% (1976-1980 survey) to 18.8% (2003-2004 survey). The increasing rates of overweight children are cause for concern regarding health conditions and diseases. These health conditions and diseases include hypertension, dyslipidemia, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems and some cancers (CDC, 2007).



Potential benefits of physical activity for children include:

- building and maintaining a healthy lifestyle;
- controlling weight;
- building lean muscle and reducing fat;
- improving a sense of self-image ;and
- fostering healthy social and emotional development.

Preliminary data from the Centers of Disease Control also suggests that physical activity may improve academic performance and alertness in youth.

Physical activity for kids has been encouraged through a number of programs. One program is the Kids Walk-to-School program which encourages physical activity as an integral part of a child's daily routine. The program teaches children the importance and the enjoyment that can be found in walking or biking to school, with the sense that a child may be inclined to engage in additional physical activity. Physical activity has also been promoted through physical education classes and community activities.

### Cleaner Environment

Vehicle usage in the United States has increased over the past decade. Vehicle transportation is no longer a luxury, but the norm. At many of the schools across the nation, one can see traffic congestion occurring with an increased prevalence in busing, parents dropping off or picking up their kids, and the through traffic trying to get to their end destination.



With the increase in the number of vehicles on U.S. highways, air pollution has become a greater concern. The Federal Highway Administration stated that the personal motor vehicle is the predominant mode of transportation (FHWA, 2007). By reducing the number of vehicles on the road, the amount of vehicle-related pollution and the number of respiratory diseases is likely to decrease.

### Land Use Trends

Current land use trends within the United States have been to develop land on the outskirts of urban areas. Land in these areas tends to be cheaper to purchase and develop, resulting in a lower overall cost for a housing unit. Development outside of the urban areas began to grow in the 1950s with the assistance of the Federal National Mortgage Association, which allowed American citizens to financially be able to afford to buy homes of their own and move out of the urban areas. The Federal Interstate Highway Act of 1956 created a national freeway system that made it easier to travel to rural areas. With the convenience of the vehicle and the perception that transportation costs for this mode

would remain low, suburban residential development became the majority of residential land use development.

## WHY SAFE ROUTES TO SCHOOL?

The purpose of the SRTS program is to provide safe pedestrian and bicycle facilities that encourage the community and students to have healthier lifestyles. Programs can be established to educate students, parents, and the community on the benefits of walking and bicycling to school and provide safety tips when they are participating in these activities. Planning efforts assess the pedestrian and bicycle facilities at and around schools, how students are currently traveling to school, and concerns and issues that parents and the community have with students walking and/or bicycling to school. Recommendations are then created to be implemented by communities, participating schools, and parents. SRTS Plans should address the 5 E's: Engineering, Enforcement, Education, Encouragement, and Evaluation.

### ***Engineering***

Engineering changes may be needed to create safe routes for students to get to and from school. Infrastructure changes may include fixing damaged or missing sidewalks, adjusting an intersection to make pedestrians more visible, or infrastructure changes on a roadway to decrease traffic speeds. Engineering changes may be very effective and can be implemented in a roadway project during a construction project on that roadway.

### ***Education***

Education for students, parents, and the community is essential when implementing a SRTS program. Students walking or biking to school need to know how to safely cross roadways and what routes are the best ones for them to take to and from school. Effective education on bicycle safety is extremely important for students. Bike rodeos or other community events can teach students and parents the proper bicycling safety tips. Having billboards or public service announcements regarding pedestrian/bicycle safety issues is another way a SRTS task force can make the community aware of pedestrian and bicyclist issues at and around school zones.

### ***Enforcement***

Driving behaviors and safety campaigns do not ensure the success of a SRTS program. Therefore, the SRTS task force should partner with local law enforcement agencies to make sure that proper traffic laws are obeyed (i.e. speed regulations, driver behavior, and appropriate walking and biking behavior) and initiate safety programs such as safety patrol

or crossing guard programs. Enforcement presence can discourage dangerous behaviors for pedestrians, bicyclists, and drivers on and off of school campuses.

### ***Encouragement***

Encouragement programs are needed in conjunction with engineering changes, education programs, and enforcement programs. Convincing children as well as parents that biking or walking to school is a safe, fun, and healthy activity can be difficult. It is for this reason that encouragement programs are recommended.

These programs will promote walking and bicycling with students and the community and assist them in applying what they have learned. These programs may provide incentives to students who walk a certain number of days in a row or a number of miles that a student has walked or bicycled to school. Programs can also get parents and the community involved by conducting a community-wide Walk to School Day. Local businesses can contribute by sponsoring signs for the Walk to School Day.



### ***Evaluation***

Once recommendations are implemented it is important to evaluate the SRTS program and continue to re-evaluate the SRTS program over time. A task force may want to evaluate the program by doing a student survey to see if there is an increase in the number of students walking or biking to school. The school district or SRTS task force may also conduct a parent survey to see if behaviors or concerns have changed with parents over time. A successful SRTS program is dependent on the success of the 5 E's.

## **TRAFFIC CALMING**

Schools and the communities within which they reside, now must face the challenges that an increase in vehicle traffic, bus traffic, and pedestrian/bicyclist traffic at and around schools generate. There is an increase in the number of parents that drive their child(ren) to and from school. This family vehicle congestion ideally should be managed in a way that provides a safe route for students who are walking, biking, and even if students are just walking from the bus they rode to school on.

To address the increase in traffic congestion at and around elementary and middle schools, communities have looked at a number of traffic calming devices to slow traffic down. Traffic calming is defined in the *Traffic Calming: State of the Practice* (ITE, 1999) as the “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.” In this report, there are number of examples that have used these traffic calming methods. Additional information can be found by referencing this report at <http://www.ite.org/traffic/tcstate/htm>.

### **Speed Control Measures**

The purpose of speed control measures is to slow traffic. Examples include:

#### **Vertical Measures**

- *Speed Humps: Road humps, undulations*
- *Speed Tables: Trapezoidal humps, speed platforms*
- *Raised Crosswalks: Raising crossings, sidewalk extensions*
- *Raised Intersections: Intersection humps, plateaus*
- *Textured Pavements*

#### **Horizontal Measures**

- *Neighborhood Traffic Circles: Intersection Islands*
- *Roundabouts: Rotaries*
- *Chicanes: Deviations, reversing curves*
- *Lateral Shifts*
- *Realigned Intersections: Modified intersections*

#### **Narrowings**

- *Neckdowns: Bulbouts, knuckles, intersection narrowings, corner bulges*
- *Center Island Narrowings: midblock medians, median slow points*
- *Chokers: Pinch points, midblock narrowings, parallel chokers, angled chokers*
- *Other Speed Control Measures*
- *Combined Measures*

### **Volume Control Measures**

The purpose of volume control measures are to discourage or eliminate through traffic. Examples include:

- *Street Closures: Full street closures i.e. cul-de-sacs, dead ends; Half street closures i.e. partial, one-way*
- *Diverter: Semi-Diverter i.e. full lane bulb out; Diagonal*

- *Median Barriers*
- *Forced Turn Islands*
- *Other Volume Control Measures*

## GRAND CHUTE SAFE ROUTES TO SCHOOL PLANNING PROCESS

### Background Information

The Appleton Area School District (AASD) is located within many communities within the Fox Cities (Appleton) Urbanized Area. Two schools, Badger Elementary School and Houdini Elementary School, are located within the Town of Grand Chute and are participating in the Town of Grand Chute SRTS Plan.

The Grand Chute Safe Routes to School (SRTS) committee was formed in the fall of 2007. The committee is comprised of representatives from a variety of entities (See Figure 1) including the Appleton Area School District, the Town of Grand Chute, law enforcement, a representative from the health profession, and parents.

In the winter of 2008, the Grand Chute SRTS task force pursued a WisDOT SRTS planning grant. The Grand Chute SRTS Program was awarded a WisDOT planning grant in the summer of 2008. The SRTS Planning process began in the fall of 2008 with the assistance of the East Central Wisconsin Regional Planning Commission (ECWRPC).

Two schools are participating in the SRTS program at this time. Each of these schools have specific safety issues pertaining to their school grounds and the areas surrounding the school. Bike and walk audits were conducted at each of the schools. These results will be discussed in a later section of this plan.

### Figure 1: Grand Chute Safe Routes to School Task Force

<u>Name</u>	<u>Agency</u>
William McClone	Badger Elementary School, Principal
Jan Haven	Houdini Elementary School, Principal
Pete Vanney	Appleton Area School District Facilities
Aaron Schellinger	Grand Chute Police Department School Liaison Officer
Peggy Carew	School nurse for Badger E.S. and Houdini E.S.
Ursula Noetle	Parent, Houdini Elementary School
Doris Kalbus	Parent, Houdini Elementary School
Gloria Sevialla	Parent, Badger Elementary School
Kathy Schmitt	Parent
Tom Marquardt	Town of Grand Chute Director of Public Works
Allen Davis	Grand Chute Community Development Director
Dan Kastner	Physical Education Instructor
Ray Palonen	Outagamie County, Highway Department
Dave Johnson	Outagamie County Planning Department
Tom Walsh	Fox Cities Greenways Member
Matt Halada	WisDOT - NE Region
Melissa Kraemer Badtke	East Central Wisconsin Regional Planning Commission

### Participating Schools

As mentioned previously, there are two elementary schools (4 year old kindergarten-6<sup>th</sup> grade). Each of these schools are participating in the Grand Chute Safe Routes to School Program (See Exhibit 1).

- ***Badger Elementary School:*** Badger Elementary School is located 501 S. Bluemound Drive in the Town of Grand Chute. Currently at Badger Elementary School has an enrollment of 290 students. Badger Elementary School enrollment boundary covers approximately seven square miles (see Exhibit 1).
- ***Houdini Elementary School:*** Houdini Elementary School is located at 2305 W. Capital Drive in the Town of Grand Chute. Houdini Elementary School is the second largest elementary school within the Appleton Area School District within a current enrollment of 640 students. The enrollment boundary for Houdini Elementary School covers approximately nine square miles (see Exhibit 1).

### Goals and Visions

Goals and visions were developed by the task force to address general concerns and safety issues.

- **Goal 1:** To provide safe and adequate routes leading to schools so that more students are able to safely walk or bike to school.
- **Goal 2:** Provide education to the community and parents regarding school zones along with pick up and drop off zones around schools.
- **Goal 3:** Increase awareness by decreasing speed violators in school zones.
- **Goal 4:** Provide safety pedestrian/bicyclist facilities within      miles from the school.
- **Goal 5:** Develop a walking school bus program.
- **Goal 6:** Provide pedestrian and bicycle facilities at and along school facilities.
- **Goal 7:** Identify potential sidewalk or non-motorized transportation facilities (i.e. pedestrian and/or bicyclist facilities) within the Town of Grand Chute and prioritize them.
- **Goal 8:** Develop a sidewalk ordinance for the Town of Grand Chute.
- **Goal 9:** Increase the number of students that walk or bike to school.
- **Goal 10:** Establish an alternative drop off location for parents.