

Focus on Bicycle Safety: Resource Guide 2012



With the start of summer, CSN is providing this special issue of our newsletter on bicycle safety, a topic which is also linked to initiatives to promote healthy weight and reduce obesity. This newsletter issue contains data on bicycle-related injuries; information about bicycle helmet laws, prevention strategies and programs, evaluations of the effectiveness of wearing bicycle helmets and of making environmental changes to support safe bicycling; policies and campaigns to encourage bicycling; and bicycle helmet ratings and other safety guidelines.

Data

1. Bicyclists and Other Cyclists: 2009 Data. - A NHTSA Report

This fact sheet presents the 2009 injury statistics on “pedalcyclists” - bicyclists and riders of two-wheel non-motorized vehicles, tricycles, and unicycles powered solely by pedals.

“Pedalcyclists under age 16 accounted for 13 percent of all pedalcyclists killed and 20 percent of all those injured in traffic crashes in 2009. By comparison, pedalcyclists under age 16 accounted for 28 percent of all those killed and 40 percent of those injured in 2000.”

<http://www-nrd.nhtsa.dot.gov/Pubs/811386.pdf>

2. Bicycle-related Injuries among Children and Adolescents in the United States

This study (Mehan TJ, et al. Clinical Pediatrics (Philadelphia). 2009 Mar; 48(2):166-73) describes the epidemiology of bicycle-related injuries among children and adolescents 18 years and younger on a national level. The researchers analyzed data from the National Electronic Injury Surveillance System of the U.S. Consumer Product Safety Commission for patients 18 years and younger who were seen in emergency departments (EDs) in 1990-2005 for injuries received while operating a bicycle. During the 16-year study period, there were an estimated 6,228,700 individuals 18 years and younger treated in U.S. EDs for bicycle-related injuries. Children with head injuries were more than 3 times as likely to require hospitalization

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and were almost 6 times more likely to have their injuries result in death. “The large number of annual bicycle-related injuries is evidence that prevention of these injuries should remain an important area of bicycle safety research and practice,” conclude the authors. CSN will provide copies of the article to state Maternal and Child Health and state public health staff on request: csninfo@edc.org

3. Bicycling and Walking in the United States: 2012 Benchmarking Report

This third biennial report, published by the Alliance for Biking and Walking, ranks the 50 states and 51 largest U.S. cities on a number of bicycling and walking benchmarks. The report includes data on: bicycling and walking levels and demographics; bicycle and pedestrian safety; funding for bicycle and pedestrian projects; written policies on bicycling and walking; bicycle infrastructure; bike-transit integration; bicycling and walking education and encouragement activities; public health indicators; and the economic impact of bicycling and walking. The authors show how lack of investment in biking and walking could be contributing to higher traffic fatalities and chronic disease rates in the United States. The report is a good tool for government officials, advocates, and those working to promote bicycling and walking.

<http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/C529>

4. U.S. Car Accident Map and Chicago Bicycle Accident Map

According to the Guardian UK Datablog, there were 369,269 deaths on U.S. roadways between 2001 and 2009. The collisions that caused these deaths involved cars, trucks, cyclists, pedestrians and motorcyclists. It's such a large figure that it's difficult to wrap your mind around it. Although these tragic losses are nearly incomprehensible, the Datablog offers an interactive diagram which maps out each casualty and shows where the most casualties occur. The map was created by transport data mapping experts ITO World using official data from the National Highway Traffic Safety Administration and sorts the collisions by type. The map is a useful tool that makes the statistics more understandable.

<http://www.jdsupra.com/post/documentViewer.aspx?fid=8bcac25a-0218-4bdb-b838-279bbaf295d8>

5. Preventable Head and Facial Injuries by Providing Free Bicycle Helmets and Education to Pre-school Children in a Head Start Program

The objectives of the study were to determine helmet use rates, incidence rates (IRs) of head and facial injuries for population attributable fraction (PAF) estimation, and to elucidate the magnitude of and changes in PAFs as the result of helmet use changes among preschool children. A study consisting of cross-sectional (survey) and longitudinal (follow-up) component was designed by including a randomly selected group of participants (n = 322) from 10 Head Start sites provided with free bicycle helmets along with a subgroup of prior helmet owners (n = 68) from the other random group (n = 285). All participants received bicycle helmet education.

http://parkview.com/HealthServices/TraumaCenter/Documents/Parkview%20Helmet%20Study_Health_2011.pdf

Helmets

6. Bicycle Helmet Use Laws: A NHTSA Fact Sheet (2008)

Bicycle helmets offer bicyclists the best protection from head injuries resulting from bicycle crashes, and bicycle helmet laws have proved effective in increasing bicycle helmet use. The estimated annual cost of bicycle related injuries and deaths (for all ages) is \$8 billion.

<http://www.nhtsa.gov/DOT/NHTSA/Communication%20&%20Consumer%20Information/Articles/Associated%20Files/810886.pdf>

7. Bicycle Helmet Use Laws: Lessons Learned from Selected Sites. - A NHTSA Report

This report describes the experiences of six jurisdictions in enacting and implementing bicycle helmet

use laws. Appendices include specific activities that states and communities have used to raise awareness of and promote compliance with the laws.

<http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/BikeHelmetUseLawsWeb/images/BicycleHelmetUseLaws.pdf>

8. Bicycle Helmet Laws Increase Use: A C.S. Mott Children’s Hospital in Ann Arbor Survey

According to this nationally representative survey of parents, children are more inclined to wear a bicycle helmet if they live in a community with a helmet law. Although only 21 states have bicycle helmet laws for children, states with these helmet laws have twice the use rate of states without them: 54 percent among 4-17 year olds compared with 24 percent in states without the laws. Older children (ages 12-17) were less likely to wear helmets than younger children (ages 4-11). The leading reason parents gave for their child not wearing a bike helmet is the child does not like wearing it. Many parents also expressed the opinion that bicycle helmets are too expensive. The survey indicated that as family income decreased, so too did the rate of helmet use. However, 86 percent of parents surveyed said they would support a helmet law in their community.

<http://www.med.umich.edu/mott/npch/reports/helmets.htm>

9. Effectiveness of Bicycle Helmet Legislation to Increase Helmet Use: A Systematic Review

This review (Karkhaneh M, et al. Injury Prevention. 2006; 12(2): 76-82) identifies the effectiveness of legislative interventions to increase bicycle helmet use among all age groups. Legislation increased helmet use among cyclists, particularly younger age groups and those with low pre-intervention helmet wearing.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2564454/pdf/76.pdf>

10. Promoting Bicycle Helmet Wearing by Children Using Non-legislative Interventions: Systematic Review and Meta-analysis

This study (Royal S, Kendrick D, Coleman T. Injury Prevention. 2007 Jun; 13(3): 162-7) assesses the effectiveness of non-legislative interventions in increasing bicycle helmet use among children and young people and identifies possible reasons for differential effectiveness of interventions. The authors conclude that community-based helmet promotion programs that include the provision of free helmets may increase helmet wearing to a greater extent than those set in schools or those providing subsidized helmets.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2598365/pdf/162.pdf>

11. Bike Helmet Ratings: A Consumer Reports Article

Consumer Reports has posted ratings of youth and toddler bike helmets. They rated only three above average in impact protection: Bell Trigger, Bell Amigo, and Giro Me2. They picked the Schwinn Thrasher as a Best Buy even though it was rated only “good” in impact protection. None of the tested helmets flunked. Most of the rating differences were in ventilation.

http://www.helmets.org/cu_2009.htm



Safe Routes to School

12. Safe Routes to School Guide

Provides information on engineering, education, enforcement, encouragement, and evaluation strategies to increase safety for children bicycling and walking to school.

<http://www.saferoutesinfo.org/guide/>

13. Many Steps...One Tomorrow: A Report on the First Three Years of the National Safe Routes to School Program. - An NCSRTS Publication

This progress report, published by the National Center for Safe Routes to School (NCSRTS), examines the growth of Safe Routes to School programs (SRTS) throughout the nation. \$370.6 million in Federal funds have been allocated to provide SRTS Coordinators in all 50 states plus the District of Columbia and to support more than 4,566 SRTS school programs throughout the United States. The report also includes case studies of several successful programs.

<http://www.saferoutesinfo.org/sites/default/files/page/SRTS%203%20Year%20Report.pdf>

14. Public Health-led Safe Routes to School Programs: Experiences from Six Health Departments. - A STIPDA Report

In many communities across the United States, public health is already a strong partner in state and local Safe Routes to School (SRTS) programs. The report, published by the State and Territorial Injury Prevention Directors Association (STIPDA), describes such programs in six health departments in diverse settings among five states that were awarded National Highway Traffic Safety Administration (NHTSA) and STIPDA one-year mini-grants to engage the public health community in SRTS initiatives.

<http://www.safestates.org/associations/5805/files/SRTS%20FINAL%20Lessons%20Learned%20Report%20-%20rebranded%208.10.pdf>

15. Bicycle Safety Resources from the National Center for Safe Routes to School

The National Center offers bicycle safety materials, including, 'Helping Your Child be a Safe Bicyclist,' a tip sheet for parents with information on bicycle and helmet fit, among other things, and 'Ride Your Bike Safely,' a tip sheet for students.

<http://www.walkbiketoschool.org/keep-going/bike-safety>

Other Programs, Strategies, Campaigns

16. National Strategies for Advancing Bicycle Safety: A NHTSA Publication

These guidelines from the National Highway Traffic Safety Administration (NHTSA) recommend national, state, and local action steps to address bicycle injuries and fatalities and focus on five goals: sharing the road; safe riding; helmets; safety legislation; and safe roads and paths.

http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/bicycle_safety/

17. Let's Move: A National Campaign



This campaign, led by First Lady Michelle Obama, aims to solve the epidemic of childhood obesity within a generation. It will give parents, community leaders, teachers, doctors, and nurses the support they need to make healthy food available in every school and home and to help our kids to be more physically active.

<http://www.letsmove.gov/index.html>

18. A National Network of Bike Trails? It Could Happen. - An NPR Program

"A quiet revolution is starting in the world of transportation. Transportation Secretary Ray LaHood announced what he's

calling a “sea change” in transportation policy: He wants to make biking as important as driving.”

<http://www.npr.org/templates/story/story.php?storyId=126263488>

19. Complete Streets

This campaign, conducted by the National Complete Streets Coalition, seeks to fundamentally transform the look, feel, and function of the roads and streets in the United States, by changing the way most roads are planned, designed, and constructed. By 2009, 100 states, regions, counties, cities, and towns had adopted Complete Streets policies.

<http://www.completestreets.org/>

20. People for Bikes: A Bikes Belong Campaign

The goal of this campaign is to gather a million names to support making bicycling safer, more convenient, and appealing for everyone. The campaign urges policy makers to make new, cost-effective investments in bicycling facilities and programs across the country.

<http://www.peopleforbikes.org>

21. Transportation for America: A National Campaign

The Transportation for America campaign focuses on building a modernized infrastructure and healthy communities, including: improving safety for pedestrians, cyclists, and motorists; supporting active lifestyles; and reducing poor air quality. The campaign is made up of a growing and diverse coalition of groups, including: real estate; housing; environmental; public health; urban planning; and transportation. APHA, NACCHO, and Smart Growth America are all partners of the campaign.

<http://t4america.org/>

22. Smart Growth

“Smart growth” is an urban planning and transportation theory that concentrates growth in the center of a city to avoid urban sprawl and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices. The most widely used tool for achieving smart growth is the local zoning law. Spurring the Smart Growth movement in the United States now are: demographic shifts; a strong environmental ethic; and increased fiscal concerns.

<http://www.smartgrowth.org/default.asp>

23. The Active Living by Design National Program: Community Initiatives and Lessons Learned

Active Living by Design (ALbD) was a community grant program of the Robert Wood Johnson Foundation (RWJF), which was established to help 25 communities create environments that support active living. Each funded site established a multidisciplinary community partnership and implemented the 5P strategies: preparation, promotions, programs, policy, and physical projects. This article (American Journal of Preventive Medicine. 2009 Dec; 37(6, Suppl. 2): 313-21) describes the valuable lessons provided by ALbD for communities, technical assistance organizations, and funders. Strong local leadership was a key to success and community partnerships benefited considerably from peer-to-peer learning. The 5P model, while challenging to implement comprehensively, proved to be a useful model for community change. CSN will provide copies of the article to state Maternal and Child Health and state public health staff on request: csn@edc.org

For more information about the ALbD program, visit <http://www.activelivingbydesign.org/>

24. Case Study Compendium: A PBIC Report

This report, published by the Pedestrian and Bicycle Information Center (PBIC), examines best pedestrian and bicycle programs from across the United States and abroad. Depending on the main program's activity, the case studies are categorized into the following sections: "Comprehensive"; "Education"; "Engineering"; "Encouragement"; and "Planning."

http://drusilla.hsrb.unc.edu/cms/downloads/pbic_case_study_compendium.pdf

25. Parent Central - A NHTSA Website

This website has information for parents on a variety of topics, including: car seats; bicycle, school bus, and pedestrian safety; seat belts; teen driving, which includes sections on impaired and distracted driving; and the dangers of trunk entrapment, heat stroke, back-overs, seat belt entanglement, power windows, and vehicle roll-away. It was created by NHTSA with collaboration from American Academy of Pediatrics (AAP), Safe Kids USA, Governors Highway Safety Administration (GHSA), National Organizations for Youth Safety (NOYS), Children's Hospital of Philadelphia, Chuggington, and the American Driver and Traffic Safety Education Association.

<http://www.safercar.gov/parents/>

Safety Guides

26. Bicycleinfo: Educating Children and Teens. - A PBIC Resource

This searchable online catalog, created by the Pedestrian and Bicycle Information Center (PBIC), identifies skills and knowledge that young bicyclists of different ages need to have and matches those needs to existing resources.

<http://www.bicyclinginfo.org/education/children.cfm>

27. Bicycle Safety Activity Kit: A NHTSA Publication

NHTSA has put together this manual and its Spanish counterpart, "Seguridad en Bicicletas", to provide parents, caregivers, teachers, community leaders, and children with tools to learn about the important basics of bicycle safety. This kit can be used in school and community bicycle safety programs or in conjunction with Safe Routes to School (SRTS) programs. The kit contains age-appropriate activities emphasizing ways to avoid crashes and related injuries while bicycling.

<http://www.nhtsa.gov/Driving+Safety/Bicycles/Bicycle+Safety+Activity+Kit>

28. Children's Bike Sizing Guide: A Consumer Reports Manual

"There should be 1 to 2 inches of space (stand over height) between your child's crotch area and the bike's top bar. Any less than an inch and the bike is too big for your child. Any more than two inches and the bike is too small."

<http://blogs.consumerreports.org/baby/2010/04/childrens-bikes-sizes-size-chart-sizing-guide-helmet-seats.html>

29. Bicycle Safety from the Think Safe, Ride Safe, Be Safe! Toolkit - Traffic Safety Campaign from NHTSA and Chuggington

Think Safe, Ride Safe, Be Safe! is a new child transportation safety campaign from NHTSA and Ludorum, the producers of the Chuggington™ television series. The campaign provides tools for you to help your child walk and ride more safely. Lessons focus on four main areas: pedestrian, bus, bike, and car seat safety. The program includes a fun and informative Chuggington traffic safety website, topic-specific safety tip sheets, downloadable safety activity materials and more.

<http://www.nhtsa.gov/parents/parents-bike.html>

30. Wheeled Sports Safety Activity Book

Bikes and other wheeled sports equipment cause more injuries than any other consumer product other than motor vehicles. Safe Kids USA recently developed a fun and educational activity book for children that addresses wheeled sports safety through word searches, coloring, and FAQs. Safe Kids USA has also released a safety brochure on bike and wheeled sports safety.

To view the activity book, visit: <http://www.safekids.org/assets/docs/for-educators/activity-book-wheeled-sports.pdf>

To view the safety brochure, visit: <http://www.safekids.org/assets/docs/for-educators/Bike-and-Wheels-Safety.pdf>

31. Bicycle, Skate, and Skateboard Safety Fact Sheet from Safe Kids USA

Topics include: general information; where, when, how, and who; proven interventions; costs; and laws and regulations.

<http://www.safekids.org/assets/docs/ourwork/research/2011-bicycle.pdf>

32. Be a Roll Model Campaign and Toolkit from NHTSA and AAA

This campaign is a partnership between the National Highway Traffic Safety Administration and AAA to encourage everyone to model safe behaviors to enhance the safety of all road users, including those who bicycle. Whether you are a motorist or bicyclist, a parent/grandparent, adult, or older youth, ride for transportation or recreation, we can all play a part in being a “Roll Model” to decrease the risks of traffic crashes and preventable injuries and deaths.

<http://www.nhtsa.gov/Driving+Safety/Bicycles/Be+a+Roll+Model>

CSN Resources

33. CSN’s Promoting Bicycle Safety for Children: Strategies and Tools for Community Programs

This issue brief provides strategies and resources for community organizations to use in developing and implementing bike safety programs for children and youth.

http://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/CSNBikeSafety_brochure.pdf

34. Smart Growth/Healthy Communities: The Role of State Health Agencies

Describes the Smart Growth campaign. Discusses the benefits of partnership for state health agencies and MCH professionals.

<http://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/Smart%20Growth%2007.pdf>



35. Childhood Injury: Cost and Prevention Facts - Bicycle Helmets Save Medical Costs for Children

This publication discusses the monetary importance of wearing a helmet, focusing on how much helmets decrease medical and insurance costs.

http://www.childrensafetynetwork.org/sites/childrensafetynetwork.org/files/bicycle_helmets_childhood_injury_cost_prevention.pdf

36. Promoting Traffic Safety for Children and Adolescents: State Health Departments in Action

Describes the results of a scan of 10 state health departments, one in each NHTSA region, to learn of traffic safety activities. Provides information on state programs and initiatives concerning child passenger safety, impaired driving prevention, bicycle safety, and pedestrian safety.

<http://www.childrensafetynetwork.org/sites/childrensafetynetwork.org/files/Promotingtrafficsafetyforchildrenandadolescents.pdf>



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www.ChildrensSafetyNetwork.org

CSN is a resource center for MCH and injury prevention professionals in State and Territorial health departments who are committed to reducing injuries and violence among children and adolescents. CSN is supported by the Maternal and Child Health Bureau, Health Resources and Services Administration, Department of Health and Human Services.

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