



**Why Are Visitors So
_____?**

**An Introduction to Visitor
Injury Prevention Strategies**

Participant Guide



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Welcome

Welcome to this TEL (Technology Enhanced Learning) training event. We are excited that you will be joining us today for *Why Are Visitors So _____? An Introduction to Visitor Injury Prevention Strategies* and we look forward to helping you to get as much out of this time as possible.

Your classroom includes students from many different locations across the NPS. You have the opportunity to hear what everyone is saying. Don't hesitate to ask questions—if you have a question, there are probably several others in the class who have the same one—you might as well be the one to ask! It is our goal that you leave class today with no unanswered questions.

How To Interact With the Instructor

We encourage you to ask questions and share your comments with the instructors throughout this TELNPS course.

If you were physically in the classroom with the instructor, you would raise your hand to let her/him know you had a question or comment. Then you would wait for the instructor to recognize you and ask for your question. We are all familiar with that “protocol” for asking questions or making comments.

With TELNPS courses there is also a “protocol” to follow to ensure that you can easily ask questions and others can participate as well. It may seem a little strange at first asking a question of a TV monitor. Remember, it is the instructor you are interacting with and not the monitor. As you ask more questions and participate in more TELNPS courses, you will soon be focusing only on the content of your question and not the equipment you are using to ask it.

As part of the TEL station equipment at your location, there are several push-to-talk microphones. Depending on the number of students at your location, you may have one directly in front of you or you may be sharing one with other students at your table.

When you have a question, press and hold down the push-to-talk button, maintaining a distance of 12-18 inches, and say,

“Excuse me [instructor’s first name], this is [your first name] at [your location]. I have a question (or I have a comment).”

Then release the push-to-talk button. This is important.

Until you release the button, you will not be able to hear the instructor.

The instructor will acknowledge you and then ask for your question or comment. Stating your name and location not only helps the instructor, but also helps other students who are participating at different locations to get to know their classmates.



Course Overview

Why Are Visitors So _____? An Introduction to Visitor Injury Prevention Strategies? Safety at our parks belongs to YOU. Every park employee has a role in preventing visitor injury. It is simply not enough to dismiss visitor injury as the fault of the “_____ visitor”. You who are familiar with your park and its risks have a vital role in educating, enforcing, and engineering, even if “it’s not in your job description”. Learn how YOU can minimize the risk of death and injury at your location.

Target Audience

All employees, including park leadership, safety officers, law enforcement and interpretation park rangers and staff, maintenance, and concessions staff.

Program Timing

Why Are Visitors So _____? An Introduction to Visitor Injury Prevention Strategies is a 2-hour TELNPS course.

Learning Objectives

After completing this course, you will be able to:

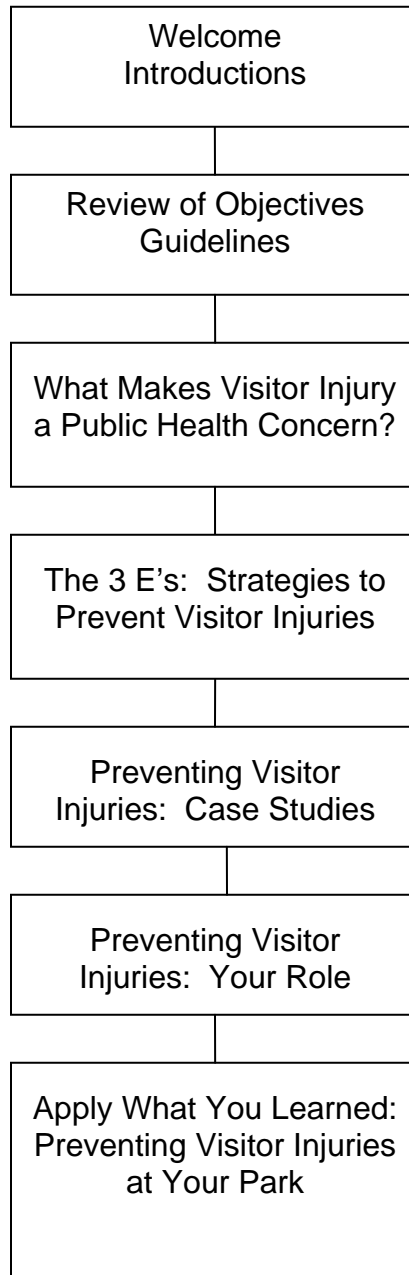
- Identify 3 reasons why injury is a public health concern in our parks.
- Give an example of each of the 3 E's used to control injury in outdoor recreational environments and the advantages/disadvantages of each: Education, Enforcement, and Engineering.

- Analyze a real-life scenario using the 3 E's.
- Describe at least one specific way you have a role with regard to injury prevention in your park.

Course Guidelines

- Actively participate in the course
- Use the TELNPS protocol for interactions
- Return from breaks on time
- Complete the entire course
- Have fun!

Why Are Visitors So _____? An Introduction to Visitor Injury Prevention Strategies Course Map



Introduction



Directions: Please answer the questions below and be prepared to share your responses.

When you hear of a visitor injury in a park, what is your first reaction?

Whose fault is it when a visitor is injured? Why?

What We Know About Injuries¹

- Neglected problem
- Leading cause of death age 1-44 in U.S.
- > \$400 billion annual cost to nation
- Injuries highly patterned
- Many interventions effective but not used
- Modest funding results in cost savings

¹*Sources: Roberston, L. Injury Epidemiology, 2006*

Family and Community Health, Vol. 32, No. 2, April-June 2009

Fowler, C.J. Injury Prevention, 2001

Center for Disease Control and Prevention, 2006

"If a disease were killing our children at the rate unintentional injuries are, the public would be outraged and demand that this killer be stopped."

--Former US Surgeon General C. Everett Koop

What We Know About Injuries In Our Parks

- On average 3 visitors die in our parks every week*
- An average of 14 people are seriously injured in our parks every day
- Most incidents (90%) are reported by ~55 parks

Number of Incidents Reported*

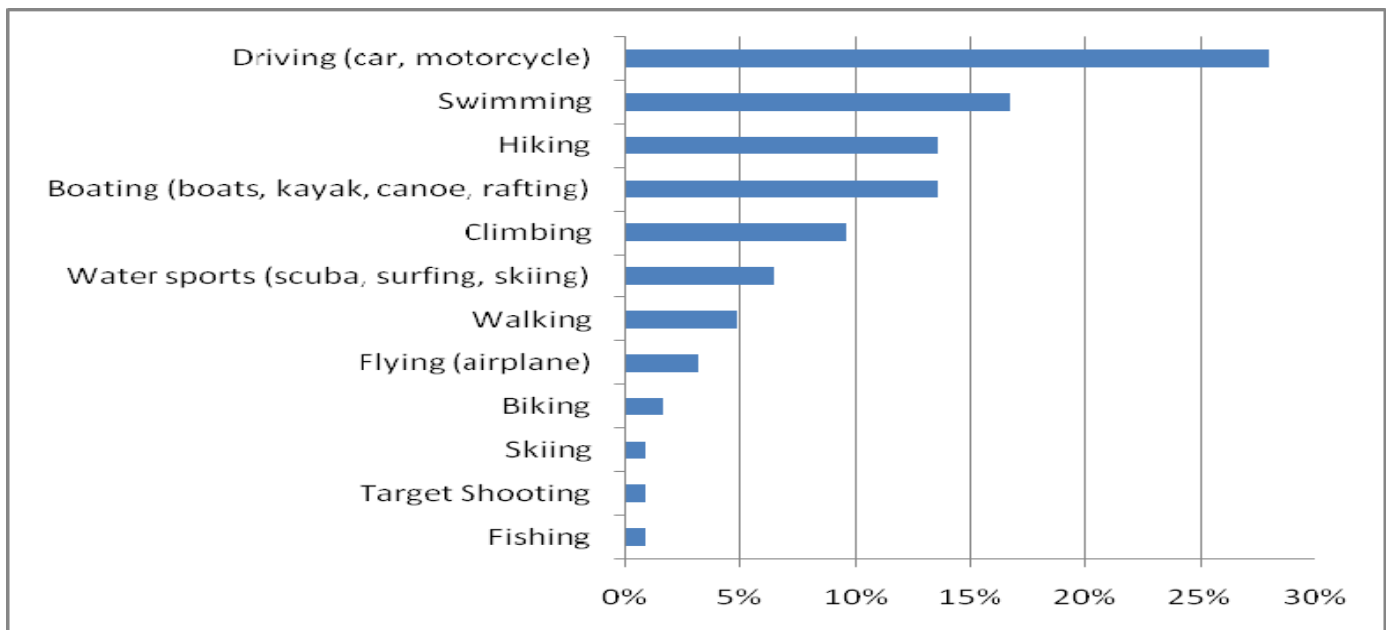
Region	2005	2006	2007	2008	2008 Incident Rate/1 Million visitors
AK	33	34	32	45	18.7
IM	973	1255	1151	1247	30.7
MW	152	134	158	153	8
NC	1217	1081	948	986	21.7
NE	437	361	424	468	8.6
PW	1852	1931	1426	1502	27.1
SE	511	541	459	503	8.6
Total	5175	5337	4598	4904	17.7

*GPRA 2005-2008 and NPS Public Use Statistics

Number of Fatalities Reported*

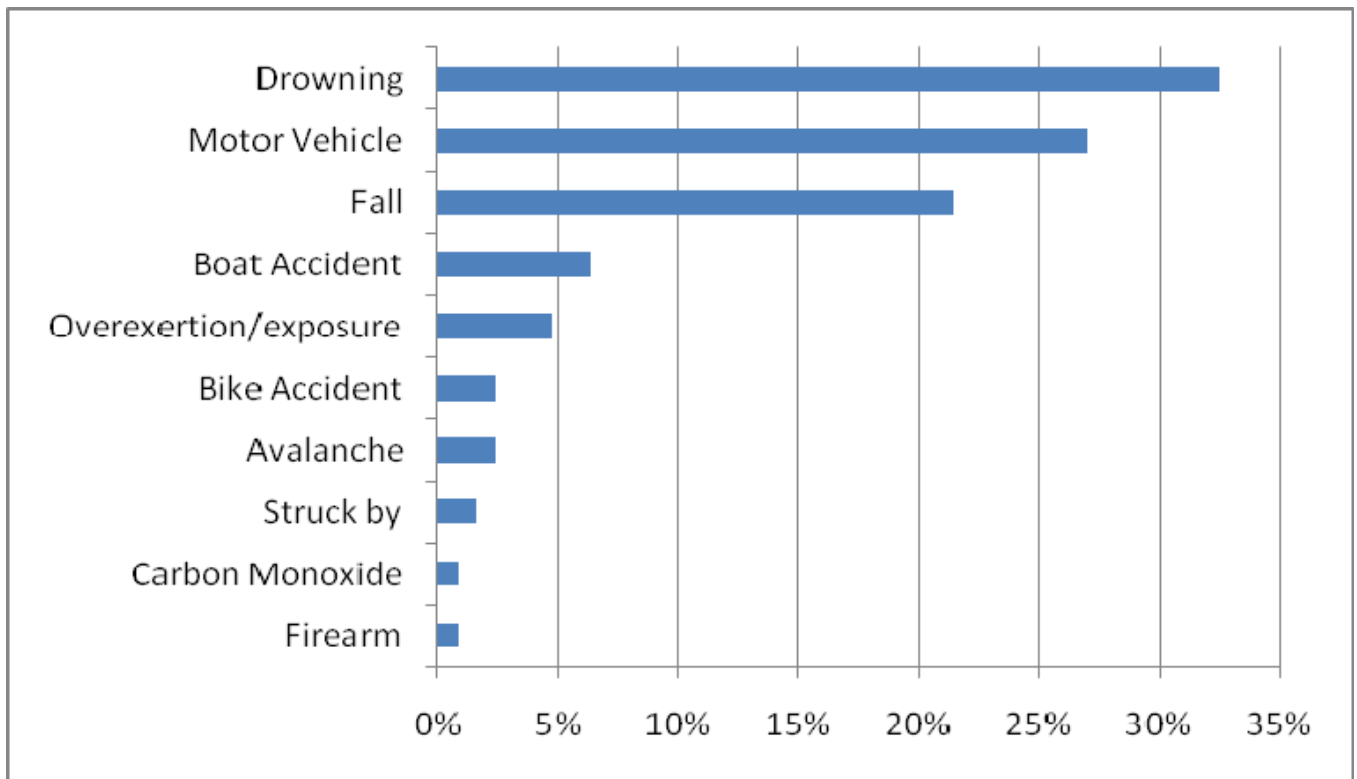
Regions	2005	2006	2007	2008	2008 Fatality Rate /1 Million Visitors
AK	4	4	10	4	1.6
IM	37	33	38	32	.7
MW	7	6	5	4	.2
NC	13	14	13	8	.1
NE	19	18	14	12	.2
PW	51	42	58	45	.8
SE	29	31	33	25	.4
Total	160	148	171	130	.57

Percent of NPS Fatalities by Activity Reported from January - December 2007*

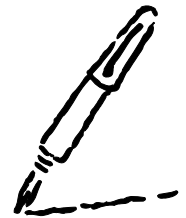


*Reported in Morning Report- extracted from Inside NPS incidents

Percent of NPS Fatalities by Cause Reported from January - December 2007*



Exercise: Why Is Injury a Public Health Concern In Our Parks?

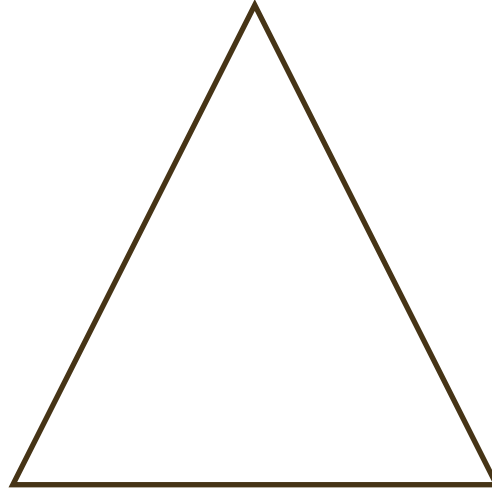


Based on what we've discussed, give 3 reasons why injury is a public health concern in our parks. Be prepared to share.

1. _____
2. _____
3. _____

Park Strategies To Prevent Park Injuries

**Engineering controls
(Environmental)**



**Education
(Risk communication)**

**Enforcement
(Legislation/Regulation)**

Engineering

Technology

Environmental Change

Enforcement

Law

Regulation

Policy

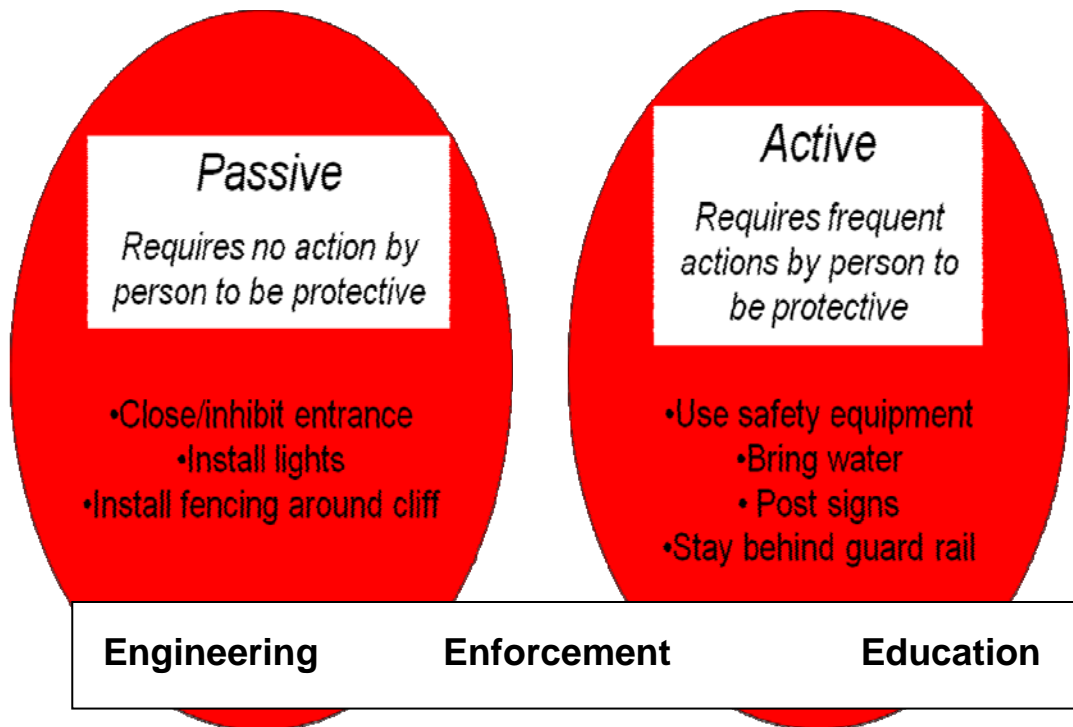
Education

Health Promotion

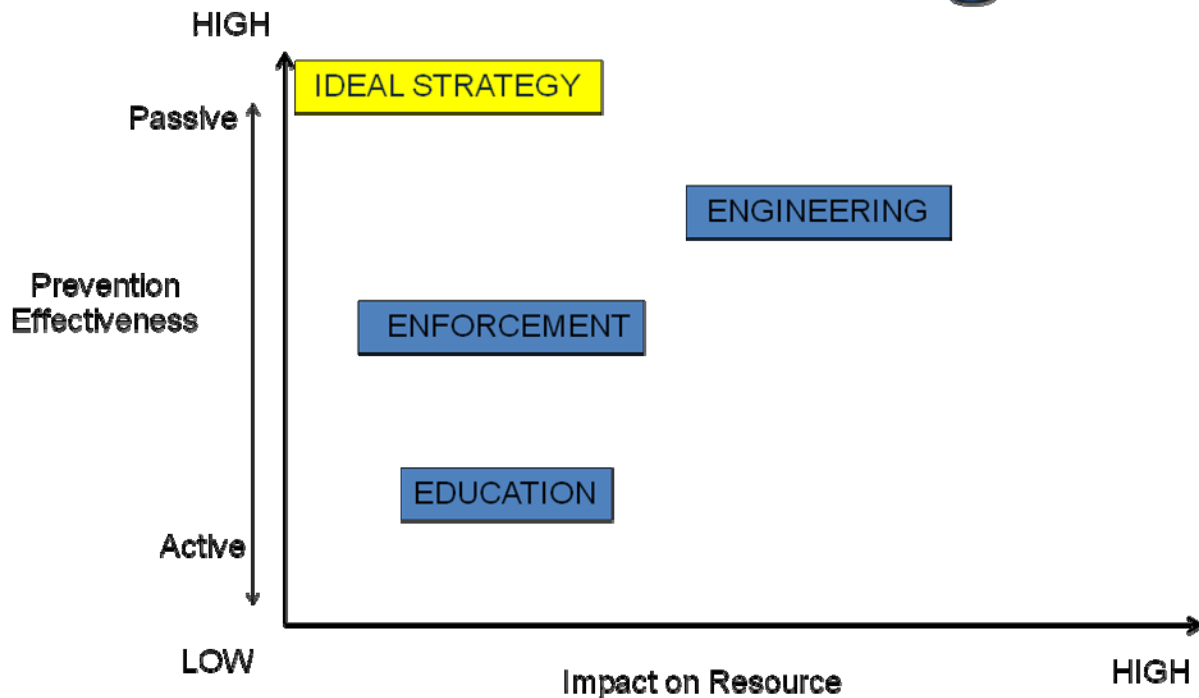
Health Behavior Change

Influencing Social Norms/Social Will

Intervention Strategies



Prevention Strategies



Think About It...



Which of the 3 E's would be the most effective strategy?

Which of the strategies do you think is probably most relied upon in the National Park Service? Why is that?

Lessons Learned from Risk Communication*

- Protective behaviors should be easy and desirable
- Caution about “fear appeals”
- People judge their risk to be less of others
- “Boomerang” effect on young people
- Stigmatization of injury victims as “foolish”
- Critical Elements of Signage

Critical Elements of Signage*

- Audience attention must be captured
- Signs must be conspicuous
- Minimize visual clutter around warning signs
- Use words like “Danger” or “Caution”; symbols and pictographs are good
- Use simple messages that can be read quickly
- Tailor or personalize the address whenever possible.

**Source: Girasek, DC “Health Risk Communication and Injury Prevention,” In: Injury and Violence Prevention: Behavioral Science Theories, Methods and Applications, 2006*

Exercise: The 3 E's



Based on the examples we've talked about, give an example of each of the 3 E's used to control injury in outdoor recreational environments and identify advantages/disadvantages of each.

Education:

Engineering:

Enforcement:

Preparing to Evaluate a Situation

- What additional data would you need to make a recommendation?
- Who among park staff should be involved to provide input?
- If you were charged with advising the superintendent on this issue, what would you advise?

Case Study: Sequoia and Kings Canyon



Based on what you have learned about this situation, answer the following:

You now know where the drownings are, and the time of day/week. What would you do?

NOTES:

Case Study: Blue Ridge Parkway



Based on what you have learned about this situation, answer the following:

You know where the accidents are occurring, location, time of day, intensity, motorcycles involved. What would you do?

NOTES:

Case Study: Golden Gate: The Batteries



Based on what you have learned about this situation, answer the following:

You can see the potential risks of this visitation area. What would you do?

NOTES:

Exercise: Your Role in Preventing Visitor Injuries



Describe how within your park you have a role in visitor safety.

Exercise: Apply the 3 E's to Your Park



- Give an example that your park unit is or should be working on.

- Think about an incident at your park unit where 3 E's could come into play. Try to address it using as many of the 3 E's as you can apply.

Appendix A: Web Resources

NPS Visitor Safety Webpage: <http://inside.nps.gov/waso/waso.cfm?prg=190&lv=3>

Contact: Sara Newman, sara_newman@nps.gov , 202-513-7225

CDC Center for Injury: <http://www.cdc.gov/injury/index.html>

Boating Safety: <http://www.uscgboating.org/safety/safety.htm>

National Highway Traffic Safety Commission: <http://www.nhtsa.dot.gov/>

National Oceanic Atmospheric Association: <http://www.noaa.gov/>

National Water Safety Congress: <http://www.watersafetycongress.org/>

National Safety Council: <http://www.nsc.org/>

US Product Safety Commission: <http://www.cpsc.gov/>

Wilderness Medicine: <http://www.wilderness-medicine.com/>

Appendix B: Recommended Readings

Published Articles on outdoor safety and adventure:

<http://www.adventuresafety.org/media/publications.htm>

Roberston, L. Injury Epidemiology, 2006

Family and Community Health, Vol. 32, No. 2, April-June 2009

Fowler, C.J. Injury Prevention, 2001

Center for Disease Control and Prevention, 2006

Girasek, DC "Health Risk Communication and Injury Prevention," In: Injury and Violence Prevention: Behavioral Science Theories, Methods and Applications, 2006

Appendix C: Biographical Sketch

Dr. Sara Newman serves as Director of the Public Risk Management Program in the Division of Risk Management at the National Park Service. Since she started working at NPS in December of 2006, Sara's priority has been to use an evidence-based approach to identify ways to support park efforts to prevent injuries to park visitors. A major part of her role has been to identify sources of visitor injury data to better scope the burden of the problem and target areas of greatest need. Recently, Sara established a student internship program to provide students opportunities to engage in practical research to fulfill academic requirements while gaining rich experience in injury epidemiology, and providing parks with needed support to enhance their injury prevention efforts. Sara is a member of the NPS Safety Leadership Council, which advises the NPS National Leadership Council on all safety related issues at NPS. She serves on the NPS Volunteers in Parks Advisory Board, is a member of the Steering Committee for the Wilderness Risk Management Conference, and is Chair of the Recreation and Sports Injury Subcommittee for the Injury Control and Emergency Health Services Section of the American Public Health Association.

Prior to her assignment with the NPS, Sara worked as Special Projects Advisor to the Deputy Assistant Secretary for Public Health Emergency Medical Countermeasures in the Office of Public Health Emergency Preparedness. Before this, Sara worked as an epidemiologist with the Division of Immigration Health Services where she managed the agency's infection control program, managed an infectious disease surveillance system and assisted in managing a Tuberculosis continuity of care program.

Sara earned her doctoral degree from the Uniformed Services University of the Health Sciences in epidemiology and social and behavioral sciences. In September of 2001, Sara joined the United States Public Health Service and worked with the Federal Bureau of Prisons to undertake her dissertation on sexually transmitted infections in female prisoners. She currently serves as a commissioned officer with the Public Health Service at the rank of Commander.

Prior to her doctoral studies, Sara served as a technical consultant for the World Bank, the International Center for Research on Women, Family Health International and she worked for two years with John Snow, Inc managing the agency's multilaterally funded projects. Sara earned her Master in City Planning at the Massachusetts Institute of Technology where she focused on program planning and evaluation. Sara is fluent in Spanish and speaks Portuguese.

Sara has received wide praise for trainings she has given throughout the National Park Service to a broad range of audiences on concepts and strategies related to injury prevention in the parks.