



The Role of Educators in Public Health Emergencies

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Emergency Partners Information Connection (EPIC) Webinar Series

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Overview

- Children's Preparedness Unit
- How emergencies affect children
- School health policies and practices study
- Healthy People 2020
- During the emergency response
- Before and after the emergency



**Children are
>22% of the
US population**



**They're 100%
of our future**



Children's Preparedness Unit

Children's Preparedness Unit Mission

To champion the needs of children in emergency preparedness and response

Build an evidence base of best practices

Increase awareness of children in preparedness planning

Offer technical assistance as subject matter experts

Develop partnerships with leaders in preparedness planning

Children's Health Team

A vertical timeline on the left side of the slide, consisting of a green line with yellow circular markers at each point. Seven horizontal green bars extend to the right from each marker, each containing a year and event name in yellow text. To the right of these bars are several images: a healthcare worker with a syringe, a child behind a fence, two people in protective suits, a mosquito, stacks of bottled water, and a satellite view of a hurricane.

- 2009 H1N1 Outbreak
- 2014 Unaccompanied Minors
- 2014-15 Ebola Outbreak
- 2015-17 Zika Outbreak
- 2016 Water Contamination, Flint, MI *
- 2016 Hurricane Matthew
- 2017 Hurricanes Harvey, Irma, Maria



* Response led by U.S. Dept. of Homeland Security

How Emergencies Affect Children

How children are different

Because they **breathe in more air for their size** than adults, children **absorb harmful materials from the air** more readily.



Because they **need vaccines, medicines, and specially designed equipment for emergency situations** that are **different from adults**.

Children
are more
vulnerable in
emergencies



Because they **spend more time outside, are lower to the ground, and they put their hands in their mouths** more often than do adults.

Because they **may not be able to communicate their symptoms or feelings**.



Children are affected by disasters



Hurricane Maria, 2017

Children may be disproportionately affected

Zika Virus Outbreak, 2015



Polio Outbreak, 2010



Image credit: CDC PHIL (Polio); AP Photo/Felipe Dana (Zika)

Children may be more severely affected



Fukushima Nuclear Power Plant explosion, 2011

Ebola Virus Outbreak, 2014



Image credit: <https://www.nytimes.com> (Fukushima); CDC PHIL (Ebola)

School Health Policies and Practices Study

Healthy People 2020

Background

■ The school environment:

- Nearly $\frac{3}{4}$ of students between the ages of 5-17 are in school for 6 hours a day
- Approximately $\frac{5}{7}$ of school districts have used materials from the U.S. Department of Education to develop a plan
- More than $\frac{1}{5}$ of school districts lack comprehensive plans

Types of public health emergencies

- **Examples of emergencies that should have response plans:**
 - School facility-related emergencies
 - Medical emergencies
 - Weather-related emergencies



Emergency alert

■ Types of notifications include:

- School operating status (closures, delayed opening, phased release)
- Facilities issues
- Hazardous weather announcements
- Shelter-in-place notifications



Whole community approach before disaster strikes

- **Unified and collaborative approach:**
 - Coordinate
 - Cross-training
 - Know who to call





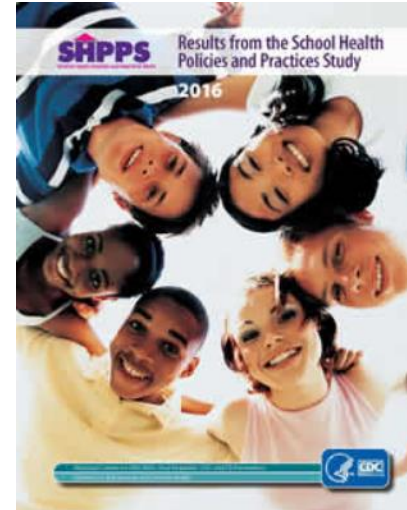
OUTCOME



School health policies and practices study (SHPPS)

National survey:

- Conducted at the state, district, school, and classroom levels
- Healthy and safe schools environment module
- Three surveys (2006, 2012, 2016)
- Self-reported data (paper and pencil and Web)
- Response rate ranged from 64.0% to 66.5%



Healthy and safe schools environment module

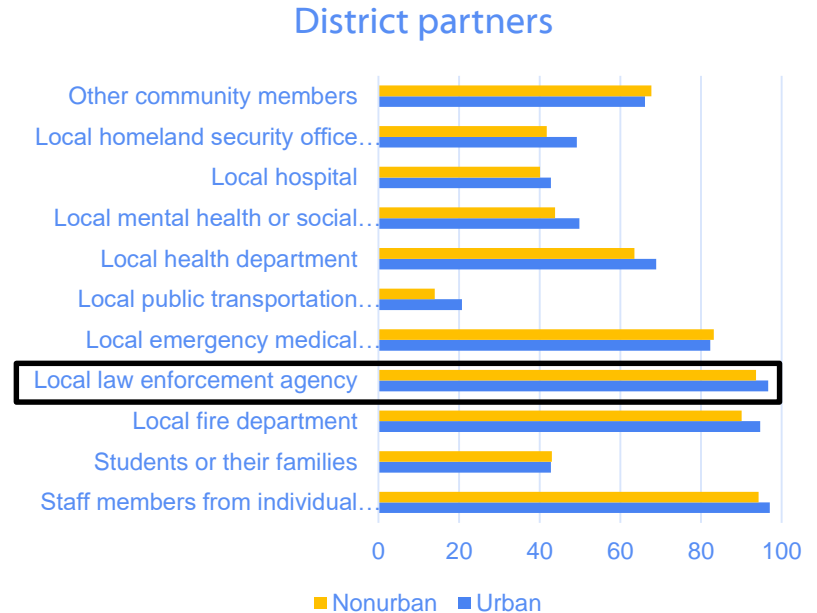
■ School district characterizations:

- District partners
- U.S. census region (Midwest, Northeast, South, West)
- Levels of urbanicity (city, suburb, town, rural)
- School enrollment size (small, medium, large)
- District provided funding for training or offered education

Key findings from SHPPS (2012)

■ Urban vs. rural collaborations:

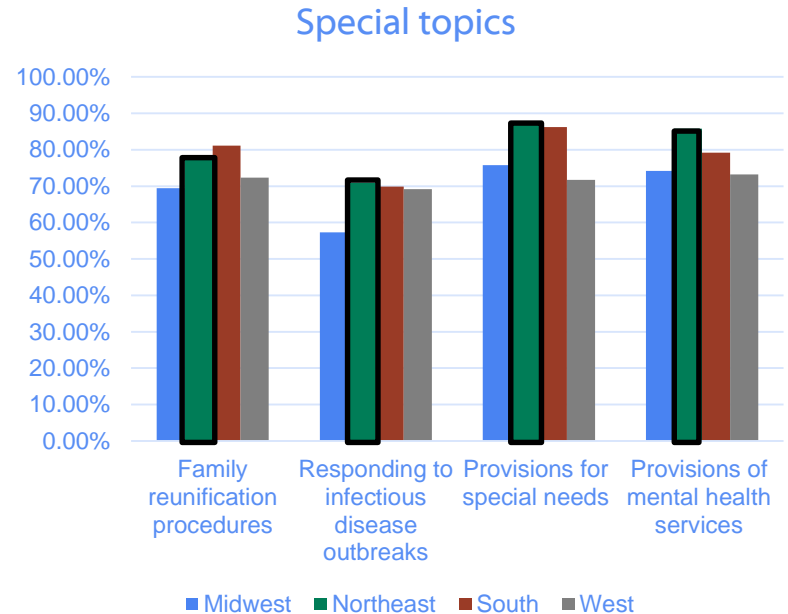
- 95% partnered with local law enforcement
- 66% with local health department
- 43% collaborated with families



Key findings from SHPPS (2016)

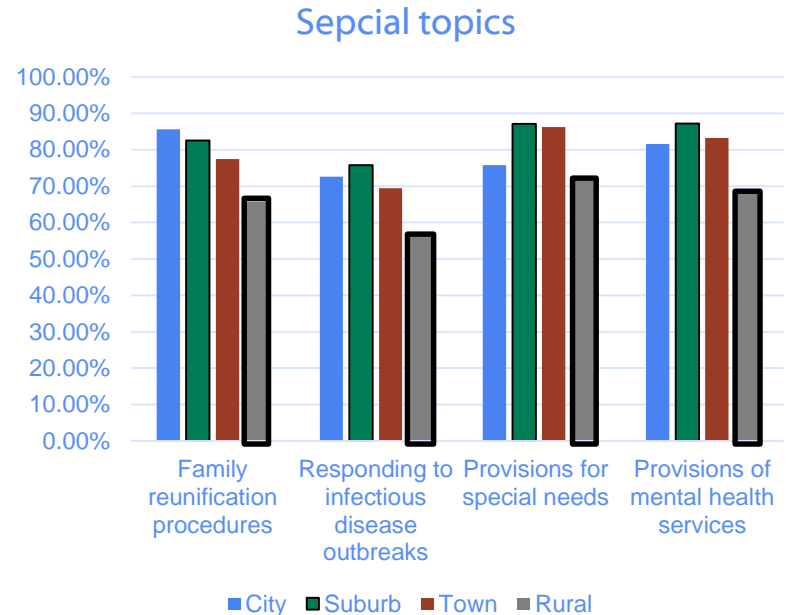
■ U.S. Census regions:

- Northeast districts were more likely to include special topics
- Provisions of mental health services was high across regions



Key findings from SHPPS (2016)

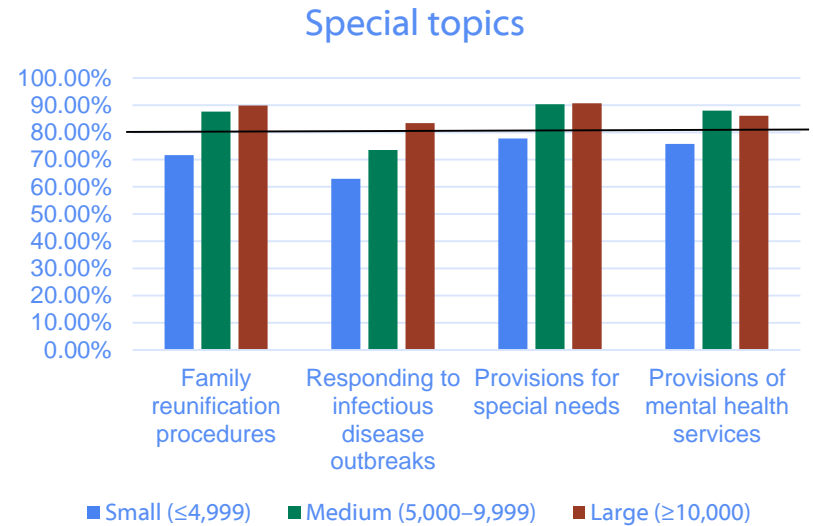
- **Level of urbanicity:**
 - More districts meeting objectives
 - Increase in suburban areas
 - Lower number of rural and smaller areas



Key findings from SHPPS (2016)

■ School enrollment size:

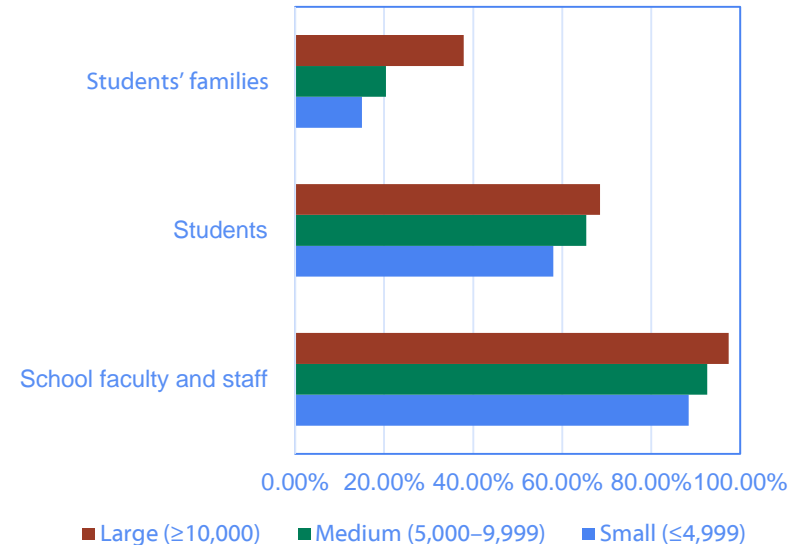
- Almost 80% of school districts met provision for students and staff member with special needs
- Smaller districts still lag behind



Key findings from SHPPS (2016)

- **District training or education offered:**
 - Most training recipients were school faculty and staff
 - Large districts vs. small districts offered training or education

Districts offered training or education



Healthy People 2020

HHS Office of Disease Prevention and Health Promotion:

- 10-year objectives for improving the health of all Americans (1990, 2000, 2010)
- 42 topic areas (>1,200 objectives)
- Objectives prompt measurable change at the national, state and local levels



Healthy People 2020 preparedness objective (PREP-5)

■ PREP-5:

- “Increase the percentage of school districts that require schools to include specific topics in their crisis preparedness, response, and recovery plans”



Healthy People 2020 Prep-5 objectives



PREP-5.1: Reunification of children, families and caregivers



PREP-5.2: Procedures for responding to pandemic influenza or infectious disease outbreak



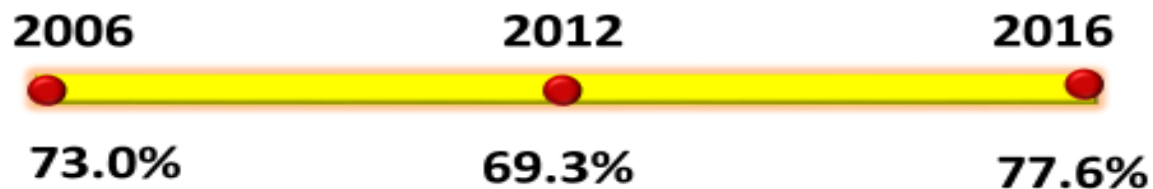
Procedures for responding to pandemic flu or infectious disease outbreaks: Target is 75.9%

PREP-5.3: Plans for students and staff members with special needs



Students and staff members with special needs: Target number is 87.9%

PREP-5.4: School plans to include provision of mental health services after a crisis



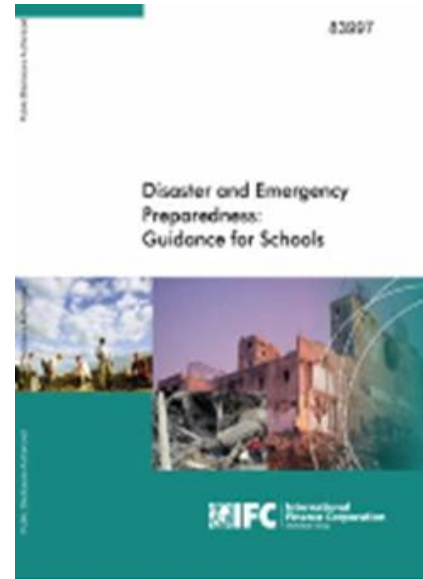
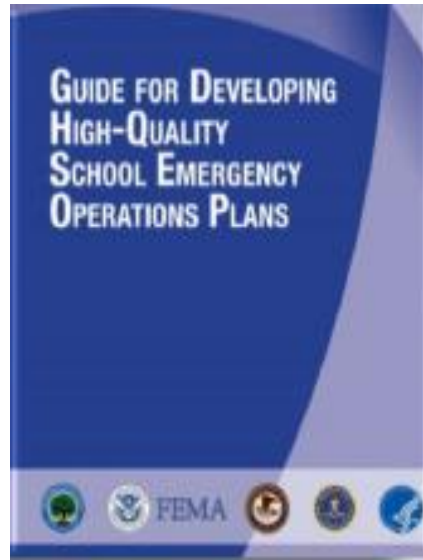
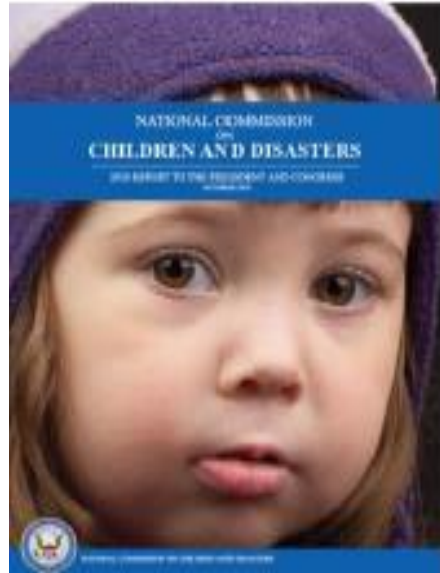
Mental health services after a crisis: Target is 76.2%

Implementation

- **Creating a district level emergency preparedness and crisis response plan:**
 - Collaboration with community and parents fosters confidence and community resilience
 - Extended school responsibilities



Guidance documents



Save the Children Disaster Report Card



During the Emergency Response:

Examples of Teacher Collaboration

Flint, MI Water Crisis (2016)

Flint, MI: Frequently Asked Questions



Should Flint children get blood lead level testing?

It is important that children in Flint be tested for lead. CDC/ATSDR suggests all children in Flint should have blood lead testing, and specifically, that all children under six years of age in Flint be tested at least once between October 1, 2015 and April 1, 2016. This is because lead testing may detect which children currently have high lead levels even if they are not being exposed to tap water at this time.

The impact of lead on children's health and development will persist even after blood lead levels are less than 5µg/dL. Blood lead testing can help provide important information for children's needs now and as they grow.



What are the best practices for using tap water?

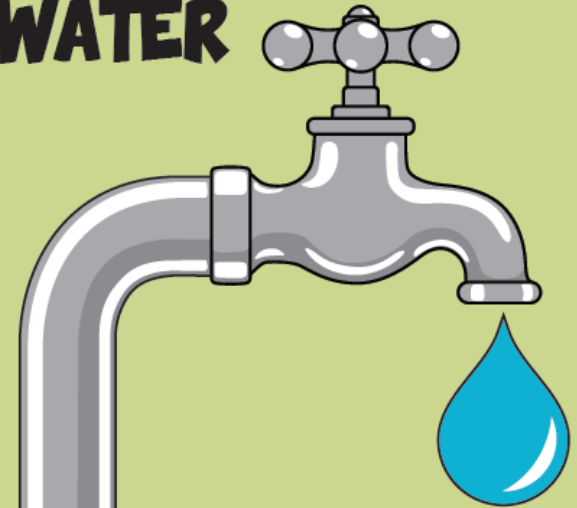
- Use NSF® certified water filters in your home, and run only cold water through the filters. Filters can be obtained at select Fire Stations, local health departments or City Hall.
- Filtered water is a safe option ONLY if your filter is certified to remove lead and you follow all the instructions on how to use it and when to replace it.
- Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, and brushing teeth).
- Bottled water is the safest choice for children under the age of six, including for making infant formula.
- Use filtered or bottled water for cooking.
- Use filtered water to wash fruits and vegetables.
- Use filtered or unfiltered tap water for washing hands and dishes.
- Boiling water will not remove lead.



Should children drink the tap water in Flint?

Bottled water is the safest choice for children under the age of six, including for making infant formula.

WHAT TO DO IF THERE IS LEAD IN YOUR WATER



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Zika Virus Outbreak (2015)

Zika Virus

Zika Virus Home	
About Zika	+
Prevention and Transmission	+
Symptoms, Testing, & Treatment	+
Areas with Risk of Zika	+
Reporting and Surveillance	+
Mosquito Control	+
Health Effects & Risks	+
Pregnancy	
Information for Specific Groups	-
State & Local Health Departments	+
Men	
Parents	+
Blood & Tissue Collection Centers	
Schools	
Community Partners	

[CDC](#) > [Zika Virus Home](#) > [Information for Specific Groups](#)

Zika Virus Response Planning: Interim Guidance for District and School Administrators in the Continental United States and Hawaii



Summary

What is already known about this topic?

Zika virus is transmitted primarily through the bite of infected *Aedes* species mosquitoes. Zika virus is not transmitted directly from one person to another through casual contact. There is no evidence that risk for transmission on school properties will be higher than in other areas of the local community.

What is added by this report?

If suspected or confirmed Zika virus infection occurs in a student or staff member, schools should continue to prioritize strategies to prevent mosquito bites on school grounds, to prevent further transmission through infected mosquitoes. Because Zika virus is not transmitted from person to person by casual contact, it is not necessary to issue a schoolwide notification, and students or staff members with travel-related Zika virus exposure or confirmed Zika virus infection do not need to be removed from school. Isolation of persons with Zika virus disease or quarantine of exposed persons is neither recommended nor appropriate. Schools should maintain privacy and nondiscrimination protections for all students and employees. In the case of local Zika virus transmission, it is not necessary to cancel school-related activities.

What are the implications for public health practice?

School, local, and public health authorities should work together to implement mosquito control activities and mosquito bite prevention measures at schools to decrease risk of Zika virus transmission, to apply appropriate policies for educating students and staff members, and for continuation of school operations.

MOSQUITO BITES ARE BAD!



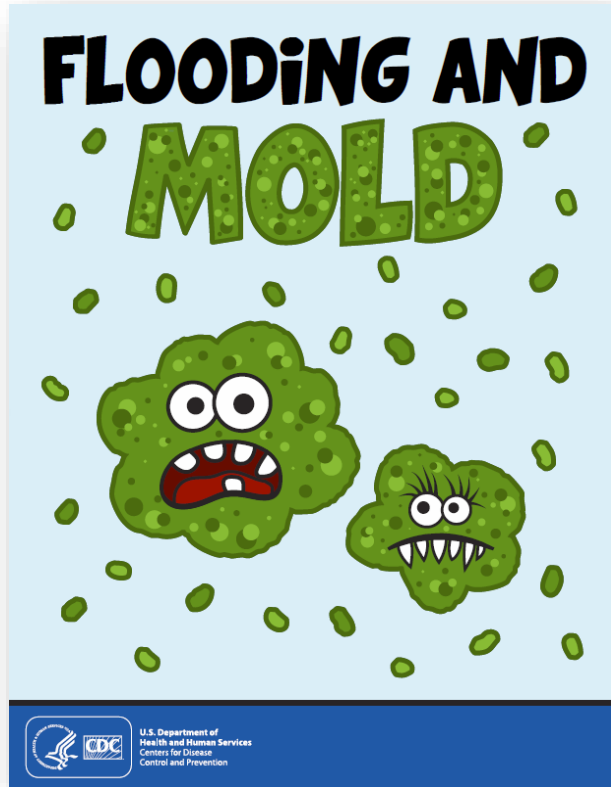
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

2017 Hurricane Response—At Risk Task Force



At-risk individuals are people with access and functional needs that may interfere with their ability to access or receive medical care before, during, or after a disaster or emergency.

2017 Hurricane Harvey, Irma, & Maria



Source: <https://www.cdc.gov/phpr/readywrigley/books.htm>

Image credit: CDC staff: personal photo used with permission of Malaika Washington

Before & After the Emergency:

Preparedness & Recovery Resources for Educators

Caring for Children in a Disaster

Caring for Children in a Disaster

How Children are Different

Helping Children Cope

Children with Special Healthcare Needs

Before, During, & After an Emergency +

Specific Threats +

Real Stories +

Tools and Resources -

Teachers and Childcare

Kids and Families

Health Professionals

Emergency Kit Checklists +

Emergency Planners

Infographic: Easy as ABC

[CDC](#) > [Caring for Children in a Disaster](#) > [Tools and Resources](#)

Tools & Resources



TEACHERS AND CHILDCARE

KIDS AND FAMILIES

HEALTH PROFESSIONALS

EMERGENCY PLANNERS

INFOGRAPHIC

VIDEOS



Coping after a disaster

Caring for Children in a Disaster

COPING AFTER A DISASTER



[CDC](#) > [Caring for Children in a Disaster](#) > [Helping Children Cope](#)

Helping Children Cope with Emergencies



Regardless of your child's age, he or she may feel upset or have other strong emotions after an emergency. Some children react right away, while others may show signs of difficulty much later. How a child reacts and the common signs of distress can vary according to the child's age, previous experiences, and how the child typically copes with stress.

Children react, in part, on what they see from the adults around them. When parents and caregivers deal with a disaster calmly and confidently, they can provide the best support for their children. Parents can be more reassuring to others around them, especially children, if they are better prepared.

People can become more distressed if they see repeated images of a disaster in the media. Early on, consider limiting the amount of exposure you and your loved ones get to media coverage.



Helping your students cope after a disaster

- Provide opportunities to talk and ask questions.
- Speak in a way they can understand.
- Set a good example.
- Be aware of behavior changes and report appropriately.



Emergency Planning for Families

EASY AS ABC

THREE STEPS TO PROTECT YOUR CHILD DURING EMERGENCIES IN THE SCHOOL DAY

A

ASK how you would be reunited with your child in an emergency or evacuation



B

BRING extra medications, special food, or supplies your child would need if you were separated overnight



C

COMPLETE a backpack card and tuck one in your child's backpack and your wallet

**BACKPACK
EMERGENCY
CARD**



Children are constantly growing and changing



Each stage brings different challenges

Resources

- Helping Children Cope in Emergencies (CDC): <https://www.cdc.gov/childrenindisasters/helping-children-cope.html>
- Coping After a Disaster Activity Pages (CDC): https://www.cdc.gov/childrenindisasters/pdf/coping_activity_page_english-p.pdf
- Ready Wrigley Preparedness Materials (CDC): <https://www.cdc.gov/phpr/readywrigley/index.htm>
- Preparedness Tools & Resources for Teachers (CDC): <https://www.cdc.gov/childrenindisasters/schools.html>
- Readiness & Emergency Management for Schools (US ED): <https://rems.ed.gov/default.aspx>
- Tips for Talking with and Helping Children and Youth Cope After a Disaster (SAMHSA): <https://store.samhsa.gov/shin/content/KEN01-0093R/KEN01-0093R.pdf>
- Disaster Distress Helpline (SAMHSA): 1-800-985-5990 <https://www.samhsa.gov/find-help/disaster-distress-helpline>

Thank You!

For more information contact:

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For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov



The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.