



# Emergency Management Newsletter



## FLOOD—Standard Operating Procedure (SOP)

This template will provide you with the basis to create an SOP specific to your health center with information regarding a flood emergency and what steps you should follow.

## Floods, Tetanus, and Escherichia Coli (E. coli)

Large portions of central Indiana have been coping with flood water from the recent rainstorms. The Indiana State Department of Health released an article, "Hoosiers Reminded Of Health Risks Associated With Flooding", that quoted State Health Commissioner, Dr. Judy Monroe, as saying, "small cuts or scratches on the skin can make someone more susceptible to diseases like tetanus, E. coli, or other pathogens."

Tetanus is a common bacterium found in the environment in items such as soil, animal excrement, and house dust. The spores of the bacteria can be infectious for up to 40 years in the soil. If the spores enter a wound that penetrates the skin and extends deeper than oxygen can reach, they grow and produce a toxin that enters the bloodstream. This toxin will affect the nervous system after approximately eight days. The most common symptom is the continuous muscle contraction of the jaw and facial muscles – the most common nickname is lockjaw. The toxin will continue to affect other nerve pathways blocking the ability to breathe. Tetanus is not contagious from person to person, but it is fatal in 30% of those infected.

So if a person presents at your health center with an open wound that was received during the clean-up of the flood water make sure they have received a tetanus vaccination. The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) recommends that persons age 19 and older receive a tetanus booster once every 10 years\* and for those receiving more serious wounds a tetanus booster is advised if they have not had one within five years.\*\*

Escherichia Coli more commonly known as E. coli is from a large and diverse group of bacteria. Most of the strains of E. coli are harmless, but there are some strains that can make a person sick with diarrhea, urinary tract infections, respiratory infections and pneumonia. According to the Centers for Disease Control and Prevention's (CDC) website, the most commonly reported contamination is associated with water. Another example is contamination of the food supply that led to the removal of spinach products from the grocery shelves last year.

The CDC notes that some kinds of E. coli make a toxin called Shiga toxin which causes disease. It is the Shiga toxin-producing, or STEC for short, that is of most concern during floods. The drinking water may be contaminated by amounts of human or animal feces. Infections start when a person swallows the STEC. Symptoms often begin slowly with mild belly pain or non-bloody diarrhea that worsens over several days. The time between ingesting the STEC bacteria and feeling sick may be as short as one day to as long as ten days, but is usually three to four days.

Please visit the ISDH website at [www.in.gov/isdh/](http://www.in.gov/isdh/) for more information on how to stay healthy during floods and the CDC website at [www.cdc.gov](http://www.cdc.gov) for additional information on tetanus and E. coli.

~ Article by *Carla Chance, IPHCA Quality Program Director*

### References:

\* Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule—United States, October 2007–September 2008. MMWR 2007;56:Q1–Q4.

\*\*Centers for Disease Control. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(No. RR-10): (page 35).

**READY-TO-GO KIT**

According to the American Red Cross, there are six basics you should stock for your home in the case of an emergency: water, food, first aid supplies, clothing and bedding, tools and emergency supplies, and special items for medical conditions.



[Click here](#) for a list of what to include in your ready-to-go kit, or you can buy a kit directly from the Red Cross.

## Lessons Learned

If I had to title this, I would call it either, “That Could Never Happen to Me” or “Do as I Say, Not as I Do.”

My name is Judy Sandiford and I recently started working at IPHCA as the Bioterrorism and Emergency Preparedness Project Manager. As such I have not only researched and completed training on emergency preparedness, but have also done presentations to CHCs on the importance of being prepared ... including personal “ready-to-go” kits. So you would think that I would have taken that to heart.

But here is where I have to confess to you that I guess I never really thought I would have personal need of the information I was sharing. Are any of you relating to that?

Well, as a resident of Columbus, I was blindsided by the flood that came our way on Saturday. In fact, I was sitting in my house completely unaware of what was happening right outside my door until one of my neighbors rang the doorbell and asked if I knew that water was heading our way. What a shock to look outside and see water rushing toward us. We literally had 5 minutes to grab what we could and run before the water overtook the house and our cars would have been stuck.

In that situation, what do you think you would have grabbed? I certainly thought I would have been much smarter than I was. When I got to my sister’s house and looked at what I had grabbed (not knowing if I would have any of my possessions left back at the house when the flood was over) I shook my head in disbelief. I actually took a book I had recently bought and wanted to read, but left all my important papers in my briefcase sitting on the floor of my bedroom. Was grabbing my makeup really more important than food and water? My parents ran out of the house without my Dad’s medication, which was an even more serious situation.

You may think you would be smarter than that and know what is important to take with you, but believe me, your mind can quickly turn to mush when faced with an immediate emergency and only minutes to get out. What peace of mind it would have given me if I had only had a “ready-to-go” bag ready to snatch and run. Now I know from personal experience that not being personally prepared prevented me from reaching out to the community.

Please don’t let this happen to you! Be prepared!

(As a footnote, we were lucky enough that we came home to a dry house! That brought a few tears of joy and I know how fortunate I am compared to many of my neighbors.)

Judy Sandiford

## The Day After

One of our IPHCA member felt the full force of the recent torrential rainstorm and survived to care for patients another day. It was made possible through good planning and a truly dedicated staff. I visited the Edinburgh-Trafalgar Family Health Center in Trafalgar Monday after the storm roared through that weekend. The casual observer or patient seeking care would not have noticed the roof damage, a few missing ceiling tiles or some damp carpeting in a back hallway. The center appeared to have their normal complement of cheerful staff. These health care professionals made the environment appear normal and relaxed. But that was not as easy as it looked. Each staff member stepped up to made the care of their patients the priority and focus of the day.

Executive Director Mike Kolenda was working on a grant submission the weekend of the storm (which involved rain, lightning, wind, and flooding) and immediately activated the center’s Emergency Plan. The plan worked. Temporary repairs and clean up were accomplished so patients could be seen without interruption on Monday. The lack of drinking water posed a problem but the staff overcame it.

## The Day After, cont.

When patients arrived Monday they were greeted and cared for as usual. They would not have known that some of the staff working that Monday sustained storm damage at their homes as well. One staff member told me she had gotten most of the water out of her home and cleaned two rooms of debris. After leaving the center at the end of her shift she hoped to get two more rooms cleaned so things could dry out. That is the kind of dedication and support the public receives every day at the Edinburg, Trafalgar, and Hope health centers. But on Monday June 9<sup>th</sup>, it made me proud.

Donald Schoolcraft

## Flood/Personal Preparedness Resources

**FEMA** – <http://www.fema.gov>

[Disaster Declaration](#) for 29 counties in Indiana

[After a Flood](#) – guidelines for the period following a flood.

Resource/Publications related to flooding:

[Catalog of FEMA Flood and Wind Publications, and Training Courses](#)  
[Design Guide for Improving Hospital Safety in Earthquakes, Floods, and High Winds: Providing Protection to People and Buildings](#)  
[The 1993 Great Midwest Flood: Voices 10 Years Later](#) – Collection of success stories documenting what effective mitigation can do to prevent future flood disasters.

**RED CROSS** [www.redcross.org](http://www.redcross.org)

[Prepare at Your Home](#) – includes emergency preparedness shopping list & family communication and evacuation plan

[“Be Red Cross Ready” Tutorial](#) – on-line educational presentation

[Flood and Flash Flood:](#)

[Know What To Expect](#)  
[How to Reduce Potential Flood Damage](#)  
[How Long Will a Flood Take to Develop?](#)  
[Flash Floods](#)  
[Prepare a Family Disaster Plan](#)  
[Assemble a Disaster Supplies Kit](#)  
[What to Do When a Flood Watch Is Issued](#)  
[What to Do When a Flood Warning Is Issued](#)  
[What to Do When a Flash Flood Watch Is Issued](#)  
[What to Do When a Flash Flood Warning Is Issued](#)  
[More Information](#)

**HOMELAND SECURITY** [www.dhs.gov](http://www.dhs.gov)

[Family Preparedness](#) – get informed; make a plan; prepare a disaster kit; get involved in your community

[Flood Information](#) - helpful information during and after a flood

[After a Flood: Cooperation](#)  
[What to do After a Flood or Flash Flood](#)  
[First Steps You Can Take After a Flood](#)  
[Flood Cleanup and the Air In Your Home](#)  
[Repairing Your Flooded Home - English](#)  
[Repairing Your Flooded Home - Spanish](#)  
[Water Treatment After a Flood](#)  
[Water well disinfection](#)  
[FEMA - Flood Information For Homeowners](#)  
[Attorney Generals Fraud Alert](#)  
[Indiana Department of Insurance Complaint Form](#)

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For questions or comments, or to schedule a site visit for help with any emergency management/preparedness issues, please contact someone on IPHCA's Emergency Management Team (*listed below*).

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