



Twelve Eighty-Two

Spring Issue: Volume 5 Issue 1

*The Public Health Preparedness Community
Newsletter from the Bucks County
Department Of Health*



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Bucks County Commissioners

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Chairman**

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Preparedness Program Highlights

Project Public Health Ready Recertification

The public health preparedness team is both excited and relieved at the news that we have recertified as part of Project Public Health Ready (PPHR). PPHR is a criteria-based training and recognition program that assesses local health department capacity and capability to plan for, respond to, and recover from public health emergencies. PPHR aims to protect the public's health and strengthen the public health infrastructure by equipping local health departments with sustainable tools to plan, train, and exercise using a continuous quality improvement model. The PPHR criteria are nationally-recognized standards for local public health preparedness. The criteria are divided into three goals: all-hazards preparedness planning, workforce capacity development, and demonstration of readiness through exercises and real-events.

PENNSYLVANIA

Bucks County Department of Health

Year Recognized: 2012, 2017

Year Recognition Expires: 2022

Public Health Preparedness and the Preparedness Summit

The Preparedness Team is happy to announce that we will be presenters for three sessions at this year's national Preparedness Summit. The Preparedness Summit is the first and longest running national conference on public health preparedness. This Summit is the paramount forum for individuals in the field to present new research findings, share tools and resources, and enhance the nation's capabilities to prepare for, respond to, and recover from disasters and other emergencies. We're excited to bring recognition and prestige to both the health department and our Medical Reserve Corps volunteers.

Getting More Done with Less: Four Public Health Tools to Help Accomplish the Seemingly Impossible (co-presented with the Philadelphia Department of Public Health)

This session presents two public health tools created by the Bucks PHP team, one tool created by the team at the Philadelphia Department of Public Health, and one tool jointly developed by both teams. These tools help us to staff our points of dispensing sites, help us target and responded to the diverse population of Bucks County, and help us support and strengthen community medication dispensing partners.

Addressing the Elephant Not in the Room: How to Get More Responders to Show Up

Plans require people to execute them but we know not everyone will show up. What are we asking of people when we need them to report to work during a disaster? This session will explore what influences this behavior and what can we do to help more responders report to work.

Reaching Across Barriers – The Creation of a Program to Meet the Needs of Our Access Functional Populations

This presentation is focused on our work on the Reaching Across Barriers workshop, which was attended by BC-MRC and Montgomery County MRC. We will also be sharing some key findings from table top and functional exercises conducted during our fall 2017 county-wide flu vaccination with participants that included Health Department Staff, Medical Reserve Corps Volunteers, and Community Volunteers .

Community Outreach

The PHP program has made community outreach a program priority for 2018. Over the next months, we will be looking to expand our presence in the community, engaging with new groups. With the assistance of Medical Reserve Corps Volunteers the PHP program will be providing health and disaster response information as well as offering expanded training offerings. If you are a part of an event that would be interested in these outreach efforts please contact:

Drew Dycus: ddycus@buckscounty.org

Or

Fallon Maggio at: fpmaggio@buckscounty.org

Upcoming Training Offerings

4/28/18	9:00 am to 12:00 pm	Psychological First Aid & Fundamental Mental Health Techniques	At: Bucks County Health Department
5/24/18	6:30 pm to 8:30 pm	Bioterrorism 101 Hosted by: The Montgomery County Health Department	At: Montgomery County Public Safety Training Campus
6/12/18	6:30 pm to 8:30 pm	Medical Reserve Corps Orientation	At: Bucks County Health Department
6/25/18	6:30 pm to 8:30 pm	Introduction to Disaster Preparedness	At: Bucks County Health Department

Bucks County Department of Health
1282 Almshouse Road
Doylestown, PA 19454

Montgomery County Public Safety Training Campus
1175 Conshohocken Rd
Conshohocken, PA, 19428

These trainings are presented as part of the Medical Reserve Corps' ongoing training series. To learn more about the Medical Reserve Corps or to join the MRC follow this link:

<http://www.buckscounty.org/medicalreservecorps> or contact the MRC at hdbcmrc@buckscounty.org

Organization Spotlight: Bucks County Immunization Coalition

The Bucks County Immunization Coalition (BCIC) works to improve immunization rates of community members across the lifespan through increased education, outreach, and accessibility.

BCIC started in 1995 with members from the Bucks County Department of Health, the Bucks County Nurses Association, the Kiwanis Club, and various Rotary Clubs. Now in its 13th year, the BCIC is looking to start an exiting chapter in its history with a new effort to expand the membership of the coalition. As the BCIC looks to expand its membership, it has a goal of increasing the diversity of the group by inviting anyone with an interest in the health and well being of Bucks County residents to join. As such, the BCIC is welcoming individuals from a variety organizations, including individuals with both medical and non-medical backgrounds, as well as individuals both organizations or as independent individuals.

Over the coming year, the BCIC will be organizing and holding two conferences geared towards health care professionals. The BCIC will also be visible throughout the county with a presences at various community events. As the BCIC continues to make inroads into the community, the collation will be looking expand its offerings for the community at large.

The BCIC meets quarterly on Wednesdays (the exact date is sent out the month prior to the meeting) in the Planning Commission Building adjacent to the Bucks County Health Department. To join or for more information contact:

Charla Bendas, RN, MCM
BCIC Coordinator
Bucks County Department Health
ctbendas@buckscounty.org
215-345-3455



Staying Safe In the Wake of Nuclear Event

Part One: First Steps

The last year has increased concerns of nuclear war for many Americans, including possibly many of you. This concern was punctuated by the missile scare in Hawaii. Even though this event was the result of a warning message sent out in error and there was no immanent threat of a nuclear attack, the aftermath of this scare resulted in many individuals questioning what could be done in a real event. At the same time, many others were left with a foreboding feeling of helplessness that nothing could be done. The PHP program has been getting an increase in questions, with many wondering what, if anything, they can do. We want to convey that even if you were to ever find yourself in the vicinity of one of these events, survival is very possible and importantly, the immediate actions you take can be the difference in survival.

If you are outside of the immediate blast area, nuclear fallout is the most pressing concern for your health and safety. Fallout is most dangerous in the first few hours after the detonation when it is giving off the highest levels of radiation. It takes time for fallout to arrive back to ground level, often more than 15 minutes for areas outside of the immediate blast damage zones. This is enough time for you to be able to prevent significant radiation exposure by following these simple steps:

1. GET INSIDE

- Get inside the nearest building to avoid radiation.
- Go to the basement or middle of the building. Stay away from the outer walls and roof.
- Remove contaminated clothing and wipe off or wash unprotected skin if you were outside after the fallout arrived.



2. STAY INSIDE

- Stay inside for 24 hours unless local authorities provide other instructions.
- Family should stay where they are inside. Reunite later to avoid exposure to dangerous radiation.
- Keep your pets inside.



3. STAY TUNED

- Unless threatened by other hazards or medical necessity, you should not leave adequate shelter on your own; wait for officials to facilitate evacuation.
- Tune into any media available for official information such as when it is safe to exit and where you should go.
- Battery operated and hand crank radios will function after a nuclear detonation.
- Cell phone, text messaging, television, and internet services may be disrupted or unavailable

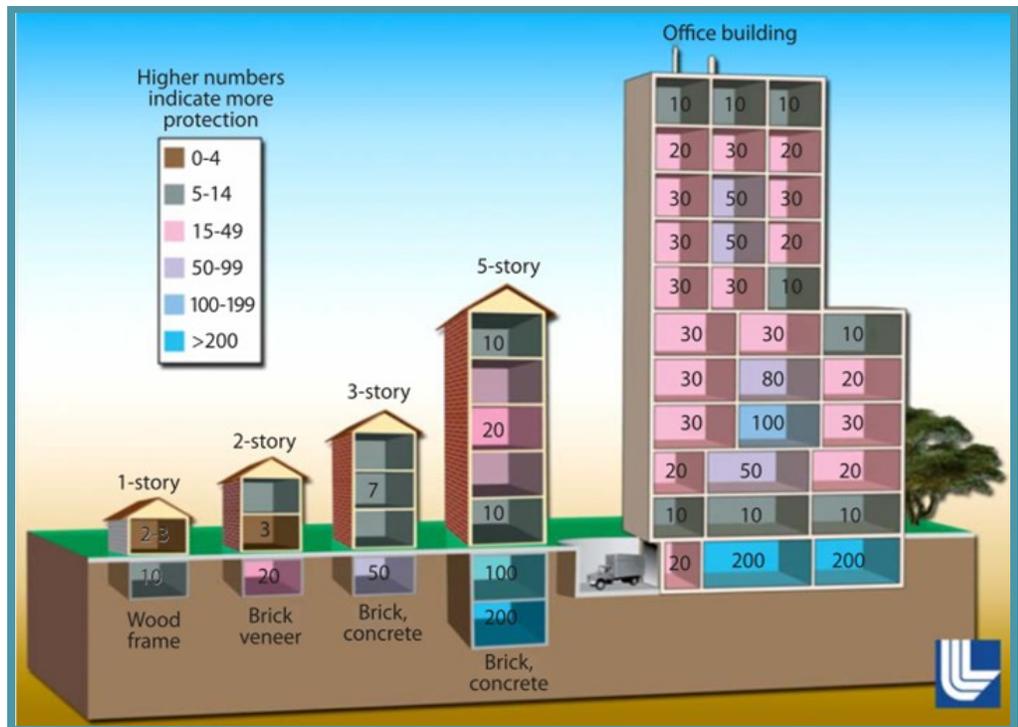


Source: <https://www.ready.gov/nuclear-explosion>

*For more information on sheltering during nuclear emergencies continue reading
Part Two: Sheltering Tips for Nuclear Events on page 4*

Part Two: Where to Shelter

1. Find the best shelter you can in about ten minutes. The highest outdoor radiation levels from fallout occur immediately after the fallout arrives and then decrease with time.
2. The best shelter puts as much earth, building materials, and space between you and horizontal surfaces (imagine it is snowing outside and you want to be as far from the snow as possible)
3. Consider tunnels, subways, and other underground areas as potential shelters providing good levels of protection. Vehicles do not provide adequate protection.
4. Remember the worst thing you can do is to get caught outdoors when fallout arrives, or choose to go outdoors when fallout is fresh. You cannot predict where fallout will deposit, or how radioactive it will be.



Fallout Protection Factors for Various Structures. Image courtesy of: Lawrence Livermore National Laboratory. The larger the PF number the greater the protection. For example 10 means 1/10th the exposure compared to no protection and 100 means 1/100 (1%).

Part Three: Duck and Cover: More than a Silly Idea?

Duck and Cover tends to elicit responses ranging from being little more than a creation of a naïve government in denial of the reality of nuclear weapons to responses of it being a way to placate a population in the face of possible annihilation. It is easy to find scathing critiques of the Duck and Cover campaign. It is much harder to find voices outlining the pragmatic rationale underlying its inception. At its core, Duck and Cover is a strategy intended to preserve as many lives as possible.

At the heart of the critiques of Duck and Cover is the assumption a nuclear attack will be on a scale that it is completely catastrophic. Although, several countries do possess a nuclear arsenal capable of essentially destroying the earth, this is not the inevitable outcome of a nuclear attack. On the contrary, most possible attacks would be limited to constrained geographic areas. For instance, the largest nuclear weapon thus far tested by North Korea, if detonated near Center City Philadelphia, would not subject Bucks County to the majority of the direct impacts resulting from blast. Depending on the conditions, Bucks County would only be subject to the impacts of nuclear fallout. Additionally, thousands of individuals closer to the epicenter of the blast, would be subject to survivable direct impacts. In fact, in most potential scenarios, there are projected to be far more injured individuals than immediate fatalities.



Source: Library of Congress

Continued on page 5

What was understated in the Duck and Cover messaging, was that Duck and Cover was not intended to make a nuclear blast survivable for individuals but rather those with survivable injuries away from the site of the detonation. Outside of the immediate blast area are thousands of individuals who would be subject to painful, but non-life threatening burns and/or a pressure wave resulting in earthquake like damage.

The general idea behind Duck and Cover is currently in line with best practice guidance for earthquakes, conventional explosions, and for nuclear detonations as well. Each have slightly different recommendations and no longer use the language of Duck and Cover, but the idea is the same; get under something sturdy and protect your head and neck.

The primary goal of ducking and covering is to minimize bodily harm while overcoming the ingrained curiosity of humans. Faced with an enormous blast, the first action most people will take is to look in the direction of the blast, often ending up standing directly in front of a window. In doing so, the person is exposed to the blinding light flash of the explosion and flying glass and other shrapnel. In addition to limiting individuals directly exposing

themselves to injury from the blast, ducking and covering further adds to protection by minimizing the body's exposed surface area. Ducking under a sturdy object protects from falling objects; ducking behind a barrier provides a level of protection from flying shrapnel and limits exposure to thermal radiation. Covering with the arms and hands adds a small bit of shield to the critical neck and head area.



Source: Library of Congress

Protecting yourself from injuries in an emergency is critical. This is particularly true for nuclear events in which emergency care will be extremely limited, especially in the immediate aftermath. Additionally, the most important action after a nuclear blast is finding and taking shelter. Any injuries sustained will delay this process, and in so doing, greatly increasing the potential exposure to harmful nuclear fallout.

Despite common perceptions, in general, nuclear detonations do not result in the death of everyone in the vicinity. On the contrary, the initial blast leave many potential survivors who can potentially increase their odds of survival through the immediate actions they take. Any nuclear event would inevitably be a horrible tragedy leaving scores dead, however the often maligned Duck and Cover Campaign was a pragmatic approach to limiting the tragedy as much as possible.

Out Loud: Public Health Podcasts to Stimulate Your Day



Episode 57: Lauren Jackson discusses radiation exposure, including the effects of a nuclear strike

Dr. Lauren Jackson is a nationally known expert in the field of tumor and normal-tissue radiobiology. She is especially recognized for her expertise in medical countermeasure development for acute radiation sickness and delayed effects of acute radiation exposure.

<https://www.ihmc.us/stemtalk/episode-57/>



Castle On The Park

On the southwest corner of Central Park West and 106th Street in New York City, there resides an enormous castle. When it was built in 1887, this castle was the country's first hospital devoted solely to the treatment of cancer. This episode of 99% Invisible explores the history of this hospital and the creation and evolution of hospitals in the United States.

<https://99percentinvisible.org/episode/castle-on-the-park/>



Episode 17: Gene-editing might eradicate disease— or be Pandora's box in a bottle

What if you could stop mosquito-borne diseases before you ever needed to take medicines to treat them? This episode of Signal explores Mendelian genetics, CRISPR, gene drives, and the possible ramifications and ethics of altering the genetic codes of species.

<https://www.statnews.com/2016/10/24/podcast-gene-drive-crispr-disease-medicine/>



Mouse's Vineyard

Martha's Vineyard has a Lyme disease problem. Now a scientist is coming to town with a possible fix: genetically engineered mice. Join Martha's Vineyard in this podcast from Undiscovered as the community grapples with the collective decision of using gene drives in mice to try to end the plague of Lyme disease.

<https://www.undiscoveredpodcast.org/mouses-vineyard.html>

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