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Bucks County Commissioners

Robert G. Loughery, Chairman
Charles H. Martin, Vice-Chairman
Diane M. Ellis-Marseglia, LCSW
Preparedness Program Highlights

Bucks County Department of Health Auxiliary Volunteers

The Community Volunteers are being rebranded as the Bucks County Department of Health Auxiliary Volunteers. We are hoping that the new name will resolve any confusion arising from the overlap between groups in the county as well as problems stemming from ambiguity in the term community volunteer. Along with this name change, we are looking to update our current BCDH Auxiliary Volunteer roster. If you are a member of this group please monitor your email in the coming weeks for a volunteer information update form.

Who Are the Bucks County Health Department Auxiliary Volunteers?

Being part of the Bucks County Health Department Auxiliary Volunteers is ideal for individuals who want a minimal level of commitment, but are interested in potentially helping an emergency response. If you would like to be a member of this group please email ddycus@buckscounty.org with the subject line ‘community volunteer’.

Medical Reserve Corps Volunteers

In addition to the community volunteer program we also maintain a second group volunteers as our Medical Reserve Corps. Volunteers in this group are asked for a slightly higher level of commitment with a handful of required trainings. These are the first volunteers we will call upon in an emergency, and the most likely to fill leadership roles. These volunteers also participate in community outreach at events, attend a variety of optional trainings, and participate in emergency response exercises. You do not need to have any medical experience to be a member of either our Auxiliary Volunteers or our Medical Reserve Corps. If you would like to become a member of our Medical Reserve Corps or would like more information, please email HDbcmrc@buckscounty.org. You can also get more information by visiting the Bucks County Medical Reserve Corps website at: http://www.buckscounty.org/mrc.

Influenza Clinics

The 1918 influenza pandemic stands as arguably the deadliest event in modern history, killing at least 50 million individuals. This quarter’s newsletter focuses on this pandemic and the virus that killed so many. Although the flu may seem trivial, it is important to remember the toll that this pathogen can bestow. Although we do not face a flu pandemic each year, the influenza virus still accounts for as many as 49,000 deaths in the United States in a given year, and experts warn that we could face another pandemic similar to the one in 1918. The Bucks County Department of Health will be providing free flu shots again this year to Bucks County residents while at the same time preparing and practicing parts of our response to another major pandemic. By getting your flu shot with us, you help to both protect your community today, and help prepare us for tomorrow.

Clinics will be held at our Doylestown and Quakertown offices on the 29th of September and at Our Lady Fatima Community Outreach Center in Bensalem on the 12th and 13th of October. See page 10 for more details.
The 1918 Pandemic

The United States Public Health Service received the first notice of impending disaster from rural Kansas. Dr. Loring Miner was a prominent figure in Haskell County, Kansas. A central player in local politics, he also owned a pharmacy and grocery store and was the physician for the county’s nearly 2,000 residents spread over hundreds of miles of spacious farmland. In January of 1918, Dr. Miner, who completed his medical education at a time when the germ theory of disease was just gaining prominence, was fighting a severe outbreak of influenza ailing many of the residents in his county. The scope and severity of the illness prompted Dr. Miner to sound alarms to his colleges, including an alert to the US Public Health Service, which received no response.

The origin of the 1918 pandemic remains vigorously debated, with researchers pointing to possible origins in France as early as 1916, China and Vietnam in 1917, and of course, Haskell County. The latter being strongly supported as the a likely origin by Dr. Miner’s early notice. Additional evidence has bolstered this theory. Haskell County lies along a major migratory path of 17 species of birds, including some that commonly carry the influenza virus. Additionally, many of the residents of Haskell raised pigs, which can host viruses from both birds and humans and presents an ideal environment for the recombination of influenza viruses into new, more dangerous viruses.

While no one is certain as to where the pandemic started, we do know that on March 4, a soldier was reported to be ill with influenza at Camp Funston in central Kansas. Camp Funston, a major Army training base housing thousands of soldiers included several men from Haskell County, was rapidly beset by illness. Within two weeks of the of the first reported case, 1,000 soldiers were admitted to the hospital. From there the virus spread throughout Army camps across the United States; a rapid spread that was simultaneously replicated throughout the world.

Despite the massive numbers of infected individuals falling ill around the world, few were dying, and consequently, few were voicing concern. Yet, the severity of the illness was not consistent. Throughout much of the world the illness was so mild that some experts argued that it was not even the flu. In other areas the illness brought with it high mortality rates. By July of 1918 the illness had largely disappeared throughout much of the world, as many rejoiced in the influenza being rather mild. But, just a month later the virus resurfaced in Switzerland with a whole new level of virulence.

By September 7th, the illness was back in the United States again striking an Army training base, this time Camp Devens just outside of Boston. The first soldier to fall ill was diagnosed with meningitis, but as dozens of new cases came in over the next days it was realized that this was a reemergence of the flu. The outbreak at the base reached its peak with over 1,500 soldiers being reported ill with the influenza in a single day. The outbreak would leave the base decimated. With the doctors and nurses sick, the hospital was forced to close, leaving soldiers sick and dying in their barracks and with too few staff to care for and feed them. Soon this apocalyptic scene would be repeated all over the world.

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The 1918 flu gained the name the “Spanish Flu”, which alluded to the political environment rather than a geographic origin. The first public news alert came from Madrid’s ABC newspaper May 22, 1918, over the next years the Spanish press would remain as an exclusive purveyor of influenza news. While much of the world was immersed in World War One, Spain remained neutral, consequentially, while the warring countries sought to limit news, the Spanish press remained free to openly report on the burgeoning pandemic. The United States, led by President Woodrow Wilson, entered the war with a devoted commitment to victory, this led to Congress passing the Sedition Act of 1918, which made punishable with up to 20 years in prison, anyone who publicly criticized the government or the war effort. The broad scope of the text and the fear of steep punishment would profoundly shape the public discourse and, consequently, have significant impacts as the pandemic progressed, and none more so than in Philadelphia, making the city the epicenter for the pandemic.

In early September, a navy ship sailed into the U.S. Navy Yard in South Philadelphia. Along with sailors and soldiers, the ship also carried the flu. Shortly thereafter the virus was rampant in the naval yard with the city’s public health leader, Dr. Wilmer Krusen, fighting to keep it from spilling into the city. Wilmer Krusen was born in Richboro, Bucks County on May 18, 1869. Wilmer would spend much of his life in Bucks County, attending public schools in the county before spending a year in Newtown where he read medicine with Dr. Charles Smith. He then attended Jefferson Medical College and completed a Doctoral of Medicine degree in 1893. By 1918, the now Dr. Krusen was the Director of the Philadelphia Department of Public Health and Charities. As the top health official in the city, Dr. Krusen was called on by doctors throughout the city to address the growing threat to the city from the steadily detreating situation in the naval yard. Instead, Dr. Krusen continued to downplay the threat assuring the public that they would be able to contain the threat. After the death of two sailors in the yard, he instead insisted that they had died of the common flu and not the Spanish Flu. Despite his assurances, the flu was already starting to seep out of the naval yard.

As the flu was gradually taking hold in Philadelphia, the city was enthusiastically preparing for the Liberty Loan parade scheduled for September 28th. As the date of the parade drew closer, physicians throughout the city called on the Dr. Krusen to cancel the parade, while also sending letters to newspaper editors highlighting the danger of the parade. Dr. Krusen refused to cancel while newspapers refused to publish any letters. On the planned date the two-mile-long parade route jammed with 200,000 spectators jammed shoulder to shoulder. Three days later, 635 cases of the flu were reported with 117 deaths. Over the next six weeks roughly 12,000 Philadelphia would be killed by the disease, with 759 people dying in just one day.

Media organizations throughout the country would balk at reporting the flu as a serious concern throughout the pandemic. Even when areas were devastated with the flu, newspaper headlines would downplay the illness, often citing it as the common flu. This was undoubtedly due, at least in part, to the ongoing war efforts and the fear of seen as speaking against the these efforts. Likewise, many public health officials throughout the country were hesitant to take strong stances, instead providing feeble public statements and often delayed control measures.

Despite the downplayed headlines and subdued statements from public health officials, the country as was much of the world, devastated. Slowing the disease became more and more difficult as the very people trained to slow its spread fell ill. The death toll was so high in many cities that bodies piled up without enough coffins for burial, and undertakers charged families for the right to dig graves for their loved ones. People across the world were afraid to leave their own home and once bustling cites were described as being empty.

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The pandemic peaked in October of 1918 with more than 100,000 Americans dying during the month. Over the next two months the number of new illness and deaths dropped dramatically. At the start of 1919, the flu pandemic had again appeared to be coming to an end. By the end of January, the number of flu cases began to climb, signaling the beginning of the third wave of the pandemic. The third wave of the pandemic did not bring nearly the number of illness nor deaths that the second wave levied, yet was still significant by comparison to any other flu season in modern history.

Although the third wave was significantly weaker than its predecessor, it did leave its own unique mark on history. As WWI peace negotiations were reaching a climax in Paris, American President Wilson fell gravely ill with a fever of 103 degrees and breathing difficulties. While his condition presented significant concern behind closed doors, public statements downplayed the severity of his condition with his staff, including his personal doctor, stating that he did not have the flu, but rather a cold. As the negotiations continued in Paris, observers noted that Wilson, the once deft negotiator, did not seem himself with mental fogginess and moments of confusion. Wilson would accept penalizing terms levied on the defeated nations that he had once strongly opposed, and many scholars have argued were part of the groundwork leading to World War II.

By the time the third wave of the pandemic came to an end in the spring of 1919, about 500 million people, a third of the world’s population, had been infected. Approximately 50 million people are estimated to have died, with estimates ranging as high as 100 million individuals having died. In the United States, roughly 675,000 individuals died during the course of the pandemic, killing nearly 6 times more Americans than were killed in World War I and over 250,000 more than were killed in World War II.
How We Fight the Flu

The vaccine stands as a cornerstone tool of public health. Vaccines have earned there lauded position through major victories of disease that long plagued humans. Smallpox was eradicated in 1949 and gone from the world by 1980. Poliovirus has been brought under complete control in the United States with the global incidence of the disease being decreased by 99%. Yet, on the backdrop of these massive victories, the culprit behind the deadliest outbreak in modern history, and one of the most common disease in the world, remains an elusive target for vaccination efforts.

When the 1918 pandemic struck the actual influenza virus still had yet to be discovered. It wasn't until the 1930's that the virus was actually identified. Over the next years the influenza vaccine was developed and first approved for military use in 1945 with approval for civilian use coming the following year. In the roughly 73 years since the influenza vaccine was first introduced, the vaccine has remained largely the same. Despite the fact that the influenza vaccine has undoubtedly reduced the impact of the flu each year, the vaccine is imperfect. Currently the seasonal influenza vaccine ranges in effectiveness from 10% to 60%. These seemingly low number still do significantly decrease the influenza burden each year. And even if you do end up getting the flu, studies have shown the flu shot reduces the length and severity of illness.

The influenza virus is a notoriously difficult target for vaccination. Dozens of influenza strains exist that could potentially make humans sick; a few of these strains will circulate worldwide in any given year. The influenza virus is particularly adapted to making humans sick while continually evading our immune defenses. The influenza virus, particularly the A strains, is a very fast evolving virus. This high rate of evolution plays a major role in the number of influenza viruses that exist as well as our ability to protect against them. Unlike vaccines for many viruses, the fast evolving nature of the influenza virus requires that new “seasonal vaccines” are developed yearly. The influenza A viruses can also change dramatically through a process known as “genetic shift”. 

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Genetic shift can occur when two influenza viruses infect the same cell simultaneously (not necessarily a human cell) and a subsequent shifting of their genetic information occurs. This can result in a hybrid viruses with the potential to create a pandemic. Often this occurs when a genetic shift occurs allowing an influenza virus predominantly circulating in an animal host to readily infect humans. These hybrid virus that arise abruptly present a novel challenge for both our immune systems, as well as our medical responses with the need for the development of a new vaccine to what can be a very unique virus.

Each year, the influenza vaccine is developed that targets three (trivalent vaccine) or four (quadrivalent vaccine) influenza strains. Commonly, this is referred to as a “guess as to what viruses to put in the vaccine”, however, this phrasing does not do justice to the consideration that is put into determining the influenza vaccine. Twice a year, experts from around the world come together for meetings to create recommendations for the influenza vaccine (the experts meet in February to create recommendations for the Northern Hemisphere vaccine and in September for the Southern Hemisphere vaccine). These experts consider the viruses that are currently circulating, forecasts as to what viruses are likely to be circulating, and the similarity between vaccine index viruses (virus developed to produce the vaccine) and the viruses predicted to be circulating. These predictions need to be made six months prior to the start of the next year’s flu season to allow for adequate time for vaccine production. This means that the selection of the virus to be included in the vaccine for the coming flu seasons may be need to be made before the current flu season has even reached its peak.

The vast majority of the world’s vaccine (80% of U.S. supply) is produced in chicken eggs, and only recently were two non-egg approaches were approved for use. The production of vaccine in eggs, despite being the primary technology for vaccine production for over 50 years, has two significant inherent shortcomings. Each year, even when there is a close match between the viruses selected for the vaccine and the circulating viruses, the influenza vaccine may still have limited effectiveness resulting from the production process. When influenza virus is propagated the virus can develop significant changes (antigenic property changes occurring through genetic shift), resulting in a virus that is notably different from the selected reference virus. Early indications suggest that this problem may be much less pronounced in the recently developed production methods however these methods are more expensive, and require more development before they can replace production in eggs. The second challenge presented by the egg production method is unique to pandemic situations, where a virus may kill large numbers of chickens, dramatically impacting the world’s ability to produce vaccine stemming from egg shortages.

Underlying all of the challenges with developing a vaccine to combat the influenza virus is the fact that our immune system has a preference for targeting the part of the influenza virus that is constantly changing. Researchers have since found parts of the virus that undergo very little change over time and by targeting these parts of the influenza virus they could potentially overcome the biggest challenges currently faced by influenza vaccination.

Using these new approaches, researchers are hoping to develop a “universal flu vaccine” that would provide protection against all influenza viruses, for at a minimum of one year, and be consistently over 75% effective (current vaccine are at best 60% effective). Some researchers/vaccine developers believe that they may be able to reach near 100% effectiveness with lifelong immunity. If you are interested in reading about this approach and few others, read this well-written and very approachable article https://www.sciencenews.org/article/universal-flu-shot-may-be-nearing-reality.

In the meantime it is still highly important to get the influenza vaccine each year. Even in years when the flu shot does not provide a particularly high level of protection, it will none-the-less, dramatically decrease your odds of getting the flu, and will reduce the severity of the flu if you do happen to get it. See page 10 for details on getting a free flu shot from the Bucks County Department of Health.
To Avoid and Relieve Influenza

BY DR. FRANKLIN DUNAN

Many people have been frightened by what they have read or heard of influenza. The more you fear the disease, the surer you are to get it. Go right about your business and forget it. As the disease is spread principally by contact through sneezing, coughing, or spitting, many health authorities have advised that everyone wear a gauze, which is daily washed and saturated with a one to five hundred solution of zinc sulphate in water, and then dried before wearing over the nose and mouth. You should avoid crowds, common drinking cups and public towels. Keep your strength up by taking lots of exercise in the open air and plenty of nourishing food.

Oh You Mask!

The “Flu” is so small he can’t be found with a microscope, but it is kept out of the nasal passages by the mask because he butts his brains against the meshes when he tries to fly in.

The mask is worn loose enough so he gets lost wondering around the curves.

He’s so small he can’t be found with a microscope, but the big, coarse meshes of the gauze will protect you just like a hog fence will keep out mosquitoes.

How “Flu” is Caught No One Knows

Where it affects us or how, is unknown.

Whether it is a germ or not, is an open question. He hasn’t been found. Whether a serum will kill him or the patient, is to be tried out.

However, there is one thing upon which there is no doubt, that is authentic and positive—the physicians orders which even HE refuses to obey. Common sense is very uncommon.

Just How to Prevent the Influenza

These things my friends, you ought to do, to keep from getting the Spanish flu:

“Remain at home, (so I’ve been told.)

“Avoid warm rooms. Avoid the cold!

“Dress lightly. Seek the out door air!

“Wear good warm woolen underwear!

“Run quickly when you hear a sneeze!

“Just have no fear. Go where you please!

“Keep doors and windows open wide!

“Shun infection, stay inside!

These things my friends, you ought to do, to keep from getting the Spanish flu!

Don’t Fear the Flu

Plenty of rich red corpuscles in the blood will protect you from the Flu. If you are weak or run down from overwork take iron and quinine. Make-Man TabletTMts have saved thousands of lives and brought untold happiness to people who were anemic or underweight.

Nature’s most vital life giving elements, Iron and Quinine, properly compounded in Tablet Form. Nothing else. No Habit forming drugs. Make-Man TabletTMts create new blood cells, strengthen the tissues and give a wonderful feeling of energy and force. Start taking Make-Man TabletTMts to-day and watch your weight increase, your digestion improve.

Be sure you see our monogram M-M*T on the package before you buy.

To Avoid the “Flu” Spray the Nose and Throat with PETRIN INHALANT CORGAS

A Thoroughly Reliable Antiseptic Preventive An ideal remedy for cold in the head, run off of the nose, tonsil and bronchial troubles 50c

Booze as Antidote For “Flu” Condemned by Phila.’s Doctors

Philadelphia. Oct. 18.—Booze as an antidote in fighting the epidemic of influenza was condemned by the opinion of some doctors, the epidemic would have been more widespread if the saloons had been opened, and the mortality rate would have jumped to even greater heights.

“Keep the saloons shut tight,” is the cry of doctors who have taken part in combating the spread of influenza. Undermining of the constitutions of many persons as a result of the indiscriminate use of whisky is occurring during the epidemic, making them more susceptible to succumbing to the disease, according to the consensus of opinion of the physicians.

1) Harrisburg telegraph., November 27, 1918
2) Harrisburg telegraph., November 18, 1918
3) The Lakeland Evening Telegram., December 13, 1918
4) Harrisburg telegraph., October 22, 1918
5) Audubon County Journal., November 28, 1918
6) Harrisburg telegraph., October 18, 1918

All Images made available by the Library of Congress
The 1918 Pandemic In Their Words

1) Evening Capital and Maryland Gazette., October 08, 1918
2) Evening Public Ledger. (Philadelphia), October 03, 1918
3) Evening Public Ledger. (Philadelphia), October 04, 1918
4) Evening Public Ledger. (Philadelphia), October 03, 1918
5) Evening Public Ledger. (Philadelphia), October 04, 1918
6) Evening Public Ledger. (Philadelphia), October 06, 1918
7) Evening Capital and Maryland Gazette., October 11, 1918
8) Harrisburg telegraph., October 22, 1918
The 1918 Pandemic In Their Words

1) Omaha Daily Bee., October 09, 1918
2, 6) Evening Public Ledger. (Philadelphia), October 04, 1918
3) Evening Public Ledger. (Philadelphia), October 16, 1918
4, 11) Evening Capital and Maryland Gazette., October 07, 1918,
5) Audubon County Journal., November 28, 1918
7, 8) Evening Capital and Maryland Gazette., October 14, 1918
9) Harrisburg Telegraph., January 14, 1919
10, 11) Evening Capital and Maryland Gazette., October 7, 1918
12, 14) The Lake County times. (Hammond, Ind.), April 04, 1919
13) The Evening World. (New York), April 04, 1919
Get a FREE FLU VACCINE to protect your health today...

and to help protect your community tomorrow!

Get your free flu shot from the Bucks County Department of Health

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<thead>
<tr>
<th>Location</th>
<th>Address</th>
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<tr>
<td>Doylestown</td>
<td>1282 Almshouse Road</td>
<td>September 29, 2018</td>
<td>9am to 3pm</td>
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<tr>
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<td>2913 Street Rd</td>
<td>October 12 &amp; 13, 2018</td>
<td>Friday, 4pm to 8pm</td>
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<td>2913 Street Rd</td>
<td>October 12 &amp; 13, 2018</td>
<td>Saturday, 9am to 1pm</td>
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<td>Quakertown</td>
<td>261 California Rd</td>
<td>September 29, 2018</td>
<td>9am to 1pm</td>
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FREE flu shots for Bucks County residents 3 years and older. For more information please contact the Bucks County Department of Health at 215-345-3318 or visit www.buckscounty.org/health

www.facebook.com/buckshealthdept/
The only thing more tragic than a death from bleeding... is a death that could have been prevented.

FREE Bleeding Control Basic Course

What: Stop the Bleed is a national awareness campaign that is designed to train and equip people to save lives in emergency situations involving serious bleeding and to show people how to apply a tourniquet to a wound and stop the bleeding.

Who: Bucks County Medical Reserve Corps volunteers and community partners

When: Saturday, November 10, 2018

Session 1: 9am-10:30am or
Session 2: 10:30am-12pm

Where: Bucks County Public Safety/Police Training Center
1760 S. Easton Rd, Doylestown, PA 18901

Registration is required by emailing Fallon Maggio (fmaggio@buckscounty.org) or Suzanne Redington (screddington@buckscounty.org). When registering, please provide the following information:
- First and last name
- Preferred email address
- Organization/agency/volunteer unit name
- Preferred session number/time (every effort will be made to accommodate that preference, but it cannot be guaranteed)
For questions or to update your contact information, please contact:

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