

For the Health of It

Oct 1, 2026
Volume 9, Issue 3

Clark County Health Department Newsletter

In This Issue

Notable News	Page 1, 2
One last Note	Page 3
Septic Tanks	Page 4, 5
One Health: What we do	Page 6
Brain Games	Page 7
Science Spotlight	Page 8
Contact Us	Page 8

Notable News

Two of our Disease Intervention Specialists (DIS) earned their CDI certification in August.

Certified in Disease Intervention (CDI) is awarded by the National Board of Public Health Examiners (NBPHE).

The CDI certification program is available to disease intervention (DI) professionals. A DI professional is primarily a non-licensed public health professional with expertise in preventing the spread of infectious disease at the community level. They accomplish this by delivering a comprehensive set of person-centered services necessary to provide access to recommended testing, treatment, and prevention resources.

CDI Certification assesses the competence of disease intervention professionals, offering evidence of essential knowledge and a standardized benchmark for skills. Certification requires continuous professional development for maintenance.

www.clarkhealth.net

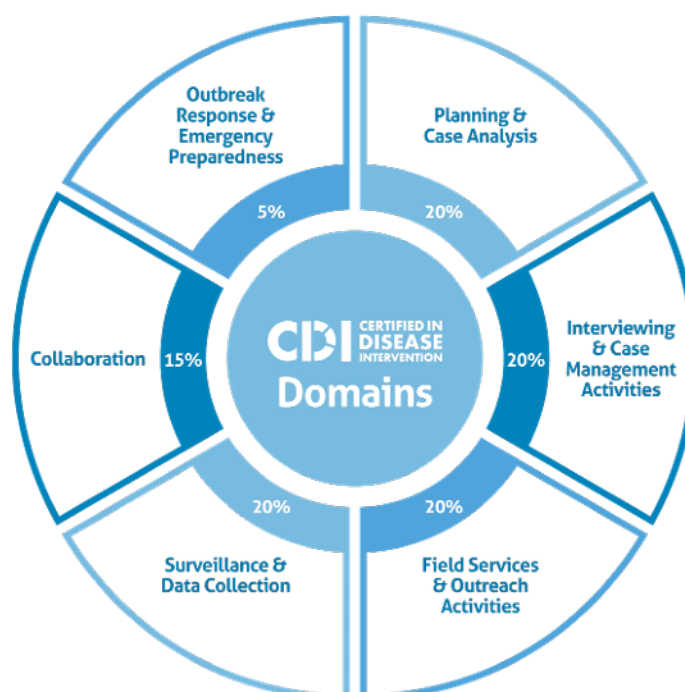
1201 Wall Street,
Jeffersonville Indiana
812-282-7521

THIS IS DISEASE INTERVENTION

Earning the CDI certification validates your knowledge, skills, and abilities as a nationally certified DI professional. CDI professionals in the workforce reduce risk and enhance community protection and public health safety. In addition, CDI certification allows employers and other interest groups to identify individuals with the competencies needed to perform their role or task.

Disease Intervention professionals are a critical workforce in public health, dedicated to stopping the spread of infectious diseases. They provide services such as testing, treatment, and prevention resources. Their daily tasks include case investigation, contact tracing, and partner services to support those diagnosed with or exposed to infectious diseases.

To sit for the CDI Certification exam, an individual must have at least one year of experience as a disease intervention professional. In addition to one year of disease intervention experience, candidates must complete a combination of education and other applicable experiences in community or health outreach.



Thank you

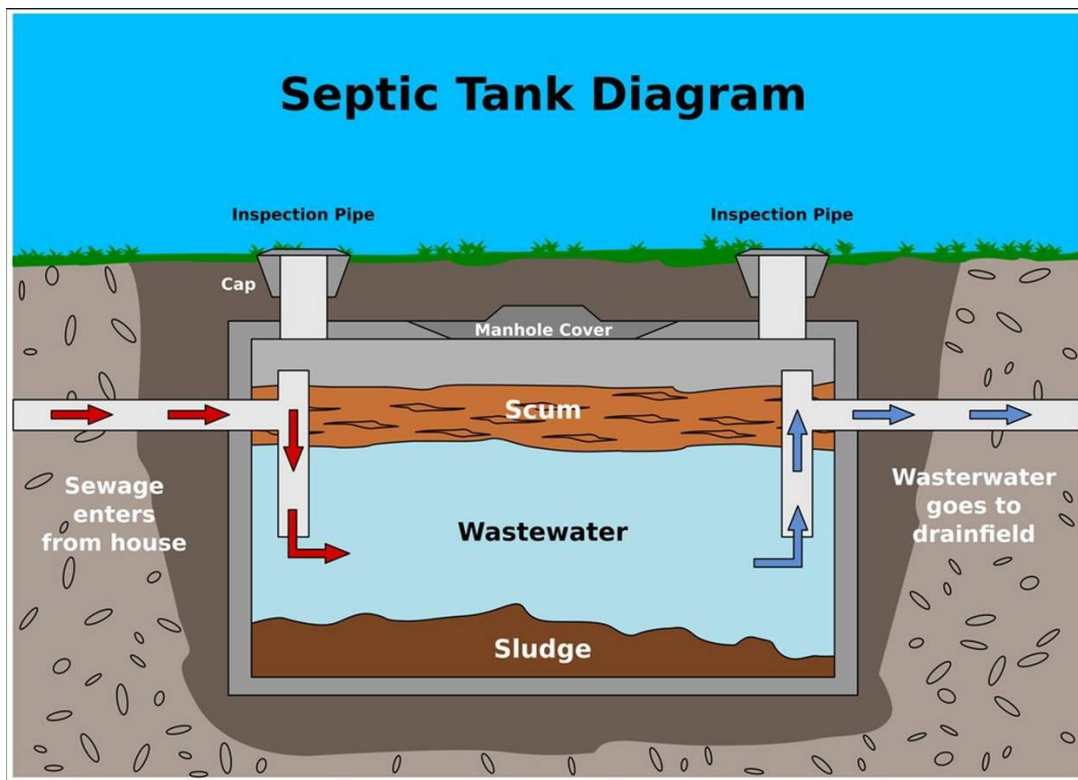
BY DR. ERIC
YAZEL



9 years ago, I was just starting as Health Officer. I was taking over for a legend, Dr. Kevin Burke, and the table was set with an amazing, motivated team to work with. I was new to Public Health. Many of our operations were pretty unknown to me: septic, restaurant inspections, etc. I tagged along with our team on some of these visits, learning about our community and getting to know our people. I started to feel like I had a handle on everything. Then the pandemic hit. We were often working 16, sometimes 20-hour days, navigating unknowns and so many challenging situations. But that is also when I got to see our team at its best.

Many can be great when everything is bright and sunny. The true heroes are those who rise to the occasion when times are the toughest. Our Health Department team met that challenge day after day after day. And once the pandemic was over, they never stopped. Our team began to address the opioid epidemic, decreasing overdoses by more than 50%. We worked with the schools for public health education and vaccine clinics. We grew our Pulse Point initiative to over 1100 responders and 100 AED's, with several documented lives saved. We held drive-through rabies vaccine clinics, TB clinics, attended virtually every health fair in the region, and so many more things. Along the way, we had the opportunity to see the best of our community, volunteers spending countless hours with us, elected officials helping and supporting in every way imaginable, and community organizations partnering with us to make our programs the best they can be. Our team became not just inside the walls of the Health Department, but our community as a whole.

I always get too much credit for the things that our Health Department does. The credit goes to Doug Bentfield, our Administrator, and our team, and the community we serve. I am proud of our accomplishments and hope that I have continued the tradition of setting the table for the next Health Officer to do amazing things. I know s/he will have some of the finest people I have ever met to share that journey with. Thank you for letting me be a part of such a wonderful team doing great things for the citizens of Clark County. It truly was an honor.



What is a septic tank ?

Do I really need to pump it?

All wastewater from your home flows into a septic tank. The septic tank provides some primary treatment using anaerobic (without oxygen) bacteria, but the main purpose of the tank is to separate your waste into three parts known as sludge, effluent, and scum.

The sludge layer, at the bottom of the tank, consists of heavy solids that settle out of the wastewater while being retained in the septic tank. The scum layer is made of fats, oils, and grease (FOG) and floats at the top of the tank. The liquid zone in the middle is the effluent. Effluent leaves the septic tank and flows to the soil absorption field for aerobic treatment and filtration in the soil. The tank has an outlet baffle that prevents the scum and sludge layers from leaving the septic tank.

The purpose of the septic tank is to contain the solids in wastewater and prevent them from interfering with the soil's natural filtration ability. It is important to maintain a pumping and maintenance routine as needed.

How often must you pump your tank?

The short and easy answer is that most residential septic tanks should be pumped every 3–5 years. But there is no one-size-fits-all answer. The only way to really know if a tank needs to be pumped is to measure the sludge, wastewater, and scum layers with a tool commonly known as a sludge judge. This tool is a clear plastic tube that takes a core sample of the contents of the tank and gives an accurate measurement of the layers inside.

Septic tanks are sized based on the number of bedrooms, which gives an indication of the number of individuals who would normally be in the home creating wastewater. If two people live in a three-bedroom home, they will generally be able to go longer between pumping.

Conversely, if five people live in a three-bedroom home, they could expect to need a more frequent pumping schedule.

Other factors could require a septic tank to be pumped more frequently based on what is flushed down the drain. If a garbage disposal is used frequently, it can add unnecessary amounts of solids from food scraps to the tank, contributing to sludge and scum buildup. Another issue could be the amount and type of toilet paper used, as well as whether other items are being flushed that should not be, such as wipes, feminine hygiene products, etc.

Are flushable wipes okay to use with your septic tank?

Kind of, but not really. Local health departments and municipal sewer utilities generally do not recommend flushing flushable wipes and/or baby wipes. Wipes will flush through the toilet and, in a perfect world, may not cause issues. However, no one wants to deal with plumbing repairs, and flushable wipes create an unnecessary risk of future repairs if they damage the sewage system.

Flushable wipes increase the risk of clogged pipes and jammed pumps in sewage systems. They are more likely to become entangled with other items in sewer lines or get caught at bends and imperfectly aligned piping. They do not dissolve like toilet paper, which typically begins breaking down into mush within minutes. Flushable wipes are made of strong, fibrous materials that take much longer to break down.

Flushable wipes can also greatly increase the amount of solids in a septic tank. With heavy use, they can cause the need for very frequent pumping of the tank, which can become costly. If pumping is not kept up with, it can cause drain field plugging and/or backups in the home or the environment.

Do septic tank additives work? Should you use them?

Typically, no. Septic tank additives do not provide measurable benefits for normal, healthy systems and are generally unnecessary. U.S.

Environmental Protection Agency (EPA) and university research indicate that standard septic tanks already have enough natural bacteria, enzymes and microorganisms from household wastewater to break down organic waste.

Additives are typically not going to reduce the amount of sludge that builds up in the septic tank, and pumping is still required to physically remove it. If you want to use additives, there are products that will not cause harmful effects; just be careful about which products you use and understand how they actually work.

For the most part, though, save your money on additives and put it toward pumping your tank. For more information on septic tank additives, see the EPA's Onsite Wastewater Treatment Systems Septic Tank Additives Fact Sheet (EPA Publication 830-F-24-003).



Photo from Poor Pumper Society

One Health: Our Natural Lands Matter More Than We Think

You may have noticed more headlines lately about opening national forests and protected lands to road building, logging, drilling, and mining. Supporters often argue these activities provide more natural resources, reduce wildfires, or improve border security, but we often forget the benefits of our natural lands, and leave out possible detrimental effects of their destruction in the conversation.



Potential harmful effects:

- Loss of endangered species habitat. Species are interconnected and rely on one another for survival. When one disappears, it can trigger a domino effect with consequences we can't always predict.
 - Did you know that about 25% of prescription drugs have a plant derived ingredient? Protecting ecosystems isn't just about wildlife. It is about human health and future medical discoveries.
- Loss of watersheds may cause localized flooding nearby. Wetlands, forests, and other vegetated areas act like natural sponges, absorbing excess rainfall. When these areas are removed, nearby communities can face more frequent and severe flooding
- Roads building leads to loss of old growth forest. Roads built into untouched forests open the door to logging and development, threatening some of the oldest and most ecologically valuable trees on the planet.
- Roads lead to Increased road maintenance fees. Hit any potholes lately? Think about the tax dollars it takes to build and maintain roadways.
- Loss of tourism and outdoor recreational areas. Damaging these areas can hurt local economies and reduce outdoor opportunities for everyone.
- There are increased carbon emissions with increased human activity, while, at the same time, reducing the number of plants there is to offset those emissions.

The One Health approach reminds us that the health of people, animals, and our environment are all connected. When we harm the environment through the loss of wildlife and biodiversity, it can affect all of us. These changes can contribute to the spread of diseases, food shortages, loss of jobs and livelihoods, destruction of animal habitats, and declines in wildlife populations. What's that worth to you?



Photograph by Brian Finke

For more information:

<https://www.sierraclub.org>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4204033/>

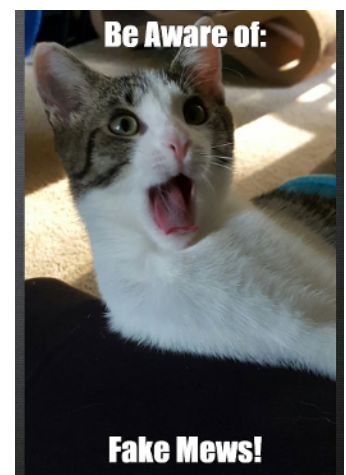
<https://www.congress.gov/crs-product/R43872>

<https://content.ces.ncsu.edu/the-economic-benefits-of-farm-and-forestland-protection>

Mental Health: Brain Games. Environmental Riddles Edition



- 1) I am completely invisible, yet I bind every living thing on Earth together. I refresh you when you walk through a forest, but I suffer silently when cities get too crowded. What am I?
- 2) I wear a coat of green and stand completely still, yet I am constantly working. What am I?
- 3) I was born in a factory in 1980, used for exactly 12 minutes to carry a single soda, and then tossed into the ocean. I am still floating out there today, completely unchanged, hanging out with sea turtles who mistake me for a jellyfish. I plan to stay for another 450 years. What am I?
- 4) I am a master of disguise. I hide inside your face scrub, your fleece jacket, and even your bottled water. I am smaller than a grain of sand, but I've managed to infiltrate everything from the deepest ocean trenches to human placentas. What am I?
- 5) I fall from the sky, carve through mountains, and flow into your taps. I can be purified to bring you health, or polluted to cause sickness. I never stop moving around the Earth. What am I?
- 6) You cannot see me, but I am your body's personal army. I remember every microscopic enemy you have ever fought and stand ready to protect you from the next cold or virus. What am I?
- 7) I cost absolutely nothing, but I am the ultimate medicine for your brain. I clear out toxins from your mind, heal your cells, and reset your energy for a healthy tomorrow. What am I?
- 8) I travel faster than any biological virus, spreading across social media in a single click. I love convincing people that miracle cures exist or that public health guidelines are a conspiracy. I cause massive headaches for doctors everywhere. What am I?
- 9) I am the giant, shiny white mirror sitting at the top and bottom of the world. My only job is to reflect the sun's burning rays back into space to keep the planet cool. But as I melt into the ocean, the planet gets darker, absorbs more heat, and makes me melt even faster. Talk about a bad feedback loop. What am I?



Answers: 1) Air 2) Tree 3) Single-Use Plastic Bag 4) Microplastics 5) Water
6) Immune System 7) Sleep 8) Misinformation 9) Glaciers

Final Fun Fact: Did you know honey bees are allergic to pollen? They break out in hives.



Discovery and characterization of antitumor gut microbiota from amphibians and reptiles: *Ewingella americana* as a novel therapeutic agent with dual cytotoxic and immunomodulatory properties

Seigo Iwata ,Nagi Yamasita ,Kensuke Asukabe ,Matomo Sakari &Eijiro Miyako

Abstract

The utilization of gut microbiota in cancer therapy has attracted considerable attention as an emerging therapeutic frontier. In this study, we systematically evaluated the antitumor effects of nine bacterial strains isolated from the intestines of amphibians (*Dryophytes japonicus* and *Cynops pyrrhogaster*) and a reptile (*Takydromus tachydromoides*). Among the isolates, *Ewingella americana* exhibited remarkably potent cytotoxic activity with selective tumor-targeting ability characteristic of facultative anaerobic bacteria. Mechanistic investigations revealed that *E. americana* functions through a dual-action mechanism: direct tumor cell killing and robust activation of host immunity, leading to enhanced T cell, neutrophil, and B cell-mediated tumor attack. Treatment with *E. americana* significantly outperformed standard therapies, including anti-PD-L1 antibody and doxorubicin, in tumor regression studies. Importantly, comprehensive safety evaluations in murine models demonstrated that the gut-derived *E. americana* strain exhibits minimal pathogenicity and exerts no significant adverse effects at therapeutically effective doses, contrasting favorably with genetically modified bacterial therapeutics. Comparative analysis revealed superior therapeutic efficacy of *E. americana* over conventional treatments while maintaining an excellent safety profile. These findings suggest that gut microbiomes of lower vertebrates harbor numerous uncharacterized bacterial species with exceptional therapeutic potential. Our study establishes a foundation for developing naturally occurring, non-pathogenic bacterial therapeutics and underscores the critical importance of microbial biodiversity in advancing cancer treatment strategies.



Summary via ScienceDaily.com: A naturally occurring bacterium from amphibian intestines completely eliminated colorectal tumors in mice with a single treatment by both attacking cancer cells and activating the immune system. The findings point to a promising new type of cancer therapy that could one day work against many solid tumors.

Article link: <https://www.tandfonline.com/doi/full/10.1080/19490976.2025.2599562#abstract>

Summary Link: <https://www.sciencedaily.com/releases/2026/07/260709160655.htm>

Administration/Vital Records/Environmental

1201 Wall Street Jeffersonville IN 47130

Phone 812-282-7521

Public Health Nurse

1201 Wall Street Jeffersonville IN 47130

Phone 812-283-2459

HIV/STD Program Office

Phone 812-288-2706

Office Hours

Monday - Friday:

8:30 am - 4:30 pm

Saturday, Sunday:

CLOSED

Public Health
Prevent. Promote. Protect.

Clark County Health Department