



## WHY IT'S NEEDED:

## CDC, WHO & ICT, FACTS

In the United States, the Centers for Disease Control and Prevention estimated roughly 1.7 million hospital-associated infections (HAI's), from all types of microorganisms, including bacteria and fungi combined, cause or contribute to 99,000 deaths each year.

\*These infections add anywhere from \$4.5-\$5.7 billion per year to patient-care costs.\*

## THE PROBLEM:

Every year there are more than 1 billion cases and over 1 million deaths globally from vector-borne Zoonotic Diseases such as the Zika Virus, Malaria, Dengue, Lyme disease, Plague, West Nile Virus, Schistosomiasis, Human African Trypanosomiasis, Leishmaniosis, Chagas Disease, Yellow Fever, Japanese Encephalitis and Onchocerciasis.

Filariasis may also reach man simply by being carried by flies or cockroaches via drainage. Thus, unlined open drains might become particularly dangerous transmission sites. It is at such sites that excreta disposal and human water contacts might occur in a concentrated and uncontrolled form.

**VECTOR-BORNE DISEASES** are illnesses caused by pathogens and parasites in human populations. Pathogen-infected vectors represent an immediate threat, but even uninfected arthropods that escape can establish populations that subsequently transmit pathogens.

Plumbing systems, along with open and exposed drains are potential sources for contamination that provide a hospitable habitat for waterborne pathogens, especially for *Legionella*. *Legionella* poses the most consistent threat in the healthcare setting.

## \*KEY FACTS\*

- Vector-borne diseases account for more than 17% of all infectious diseases, causing more than 1 million deaths annually.
- More than 2.5 billion people in over 100 countries are at risk of contracting dengue alone.
- Malaria causes more than 600,000 deaths every year globally, most of them children under 5 years of age.
- Other diseases such as Chagas disease, leishmaniosis and schistosomiasis affect hundreds of millions of people worldwide.
- Many of these diseases are preventable through informed protective measures.



# HOSPITAL FACILITIES & PRACTICES SHOULD MINIMIZE OR ELIMINATE THE ESCAPE OF ARTHROPODS AND PATHOGENS, PROTECT PATIENTS AND PROTECT PERSONNEL WHO WORK IN THE FACILITY.

**ZIKA VIRUS:** Protection against mosquito bites is a key measure to prevent Zika virus infection. It is important to cover, empty or clean potential mosquito breeding sites in and around Healthcare Facilities, such as open drains.

## **DANGEROUS SOIL EMISSIONS/GREENHOUSE GASSES:**

- Radon (odorless and not visible)
- Methane (Contaminants from previous uses of the site)
- Pesticides
- Carbon Dioxide/Nitrous Oxide/Carbon Monoxide
- Solvent odors/Gasoline (Leakage from underground fuel tanks)



Green Drain™ reduces exposure to hazardous sewer gases and deadly HAI's in the workplace. It is an ecofriendly, preventative action that will lead to improved outcomes for worker & patient health, while exceeding the lifespan of traditional chemical applicants that harm the environment.

# Green Drain™ DRASTICALLY MINIMIZES THE RISK OF MULTIPLE, DEADLY HAI'S.

## **ELIMINATES:**

- The threat of disease carrying pests that hide in your drains.
  (I.e. Drain Flies, Cockroach's, Fruit Flies, Silver Fish)
- The need to pour pesticides, chemical applicants and deodorizers/down the drain.

## **REDUCES:**

- The risk of harmful sewer gasses intruding your facility through drain lines.
- Costly chemical expenditures.
- Plumbing related call-outs.
- Exterminator related call-outs and call-backs.
- Timely drain maintenance by Facility Staff and Plumbers.
- Sewer load.
- The chemical impact on our oceans and environment.

## **CONSERVES:**

- Water and water related expenses by eliminating the need for trap primers.
- Time and energy.

## **CONCLUSIONS:**

Laboratory research with arthropod vectors of vertebrate disease is essential for an improved understanding of the role of the vector in pathogen transmission and for development of enhanced disease prevention strategies.

GREEN DRAIN™ WILL GIVE YOU THE PEACE OF MIND KNOWING THAT YOUR FACILITY'S DRAINAGE SYSTEM IS PROTECTED!