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Zika Virus

The Bahamas is plausibly in the imminent path of the Zika virus. With confirmed cases in neighboring areas including South Florida, Haiti and the Dominican Republic, it is confirming the migration of the threat from South America, up through the Caribbean, and now into the United States specifically South Florida.

Dengue Fever, Chikungunya virus and the Zika virus, amongst other things are hosted by the Aedis Aegypti and Aedis Albopictus varieties of mosquitos. While there are thousands of varieties of mosquitos it is just these two that are believed to be causing the myriad of health problems.

Fortunately, some mosquitos carry certain traits regarding their **behavior, breeding sites, biting preference** to name a few and they are helpful to know with such a vector threat in order to try mitigate it. The world has become more reliant and expects the government to address and conquer such threats, however, every person can assist and do their part, individually and collectively.

The Aedis Aegypti and Aedis Albopictus are both “day feeders” which means that they rest during the night and then come out in search of food during the day. Mosquitos typically feed on nectar from plants. It is only the females that bite simply because in order to produce eggs and have successful reproduction they need to consume protein, this protein cannot be obtained from nectar so they look for blood. Most available and convenient is by often biting birds and wild animals, simply because they share a similar habitat, and then humans.

I mention behavior because these two varieties do not venture very far from where they were born, usually within a couple of hundred feet, so if you are being bitten during the day and if you or your neighbours have dengue fever or the like, then there is a possibility that there is an active breeding site nearby and it should be looked for and treated to avoid further human infection. There is a incubation period so once a person has been bitten by an infected mosquito it takes a few days for the symptoms to show: this compounds the difficulty in knowing exactly when and geographically where the victim was bitten.

These mosquitos prefer to lay their eggs in artificial containers that have water and organic matter such as a pail that has been sitting around with stagnant water, some leaves have fallen into it and is dark in colour or in the shade. Mosquitos are actually rather particular as to where they lay their eggs.

Once the eggs are laid, within days they hatch into larvae, then develop into pupae and finally emerge from the water and dry off their wings as adults. Because we know they prefer artificial containers such as pails, pots, bird baths, tires etc, we can seek out such breeding sites and mitigate them by emptying the water, treating the water, and inverting the container to avoid it being refilled by rainwater or irrigation. Typically the mosquitos will lay their eggs where some sort of organic decay (such as dead leaves) is occurring as this is a food source for the larvae and pupae as they hatch from being eggs.

There are some other things that humans can do to avoid being bitten once their surroundings are checked for breeding sites, including checking with their neighbours or having derelict vehicles removed and pools treated. Such measures include wearing an insect repellant, long sleeve shirts, long pants, hats etc. Making sure the mosquito screens on windows and doors fit properly and do not have holes or cuts in it. Using candles or burning tiki torches with Citronella oil assists to repel mosquitos but will not kill them, unless the flame catches them.

The most effective way to control mosquitos is through a proper Integrated Pest Management Control Program that Bahamas Mosquito Fogging Company promotes alongside public awareness and involvement. The pillars of such an Integrated Program is breeding site identification and mitigation, misting and finally fogging. Bahamas Mosquito Fogging Co. Ltd provides this integrated approach and has had great success with such a program.

Dengue Fever and the Chikungunya Virus caused havoc in the Bahamas, so much so that people stopped going to the doctor once the symptoms were felt as the only relief doctors could offer was to drink lots of fluids and take an over the counter pain reliever containing paracetamol. Unfortunately, there were many deaths as an indirect result of dengue fever such as those with immune deficiency such as AIDS, HIV, sickle cell anemia as well as dialysis patients and others, however since their primary condition already existed it was often recorded as the cause of death and not the mosquito borne illness. Once a person has had dengue fever the chances of them contracting the Dengue Hemorrhagic Fever (DHF) has been said to increase. Chikungunya originates from a verb in the Kimakonde language in Africa meaning "to be contorted" simply because of the pain experienced by the victim.

Fortunately the Bahamas has been blessed with a lot of luck over its history and given the milder temperatures experienced of late it hampers the breeding cycles (cooler water temps) and populations exponentially decrease, which is happening at an opportune time as the Zika virus is within close proximity to us. However, the key is to not be complacent and reactive, but to

address this matter now and do all we can as a community to mitigate the chances of us, or our loved ones, contracting these dreadful diseases.

The truth is that there are more facts and speculation coming out that were not previously known such as the Zika virus causing birth defects, possibly being carried in the semen of men so potentially being a sexually transmitted disease as well as the regular symptoms of dengue fever.

I therefore urge each and everyone to please do their part in breeding site mitigation, teach the next generation how to prepare and make it routine not to discard trash irresponsibly which could then potentially become a breeding site.

Sincerely yours,

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