

A young family enjoying the outdoors that only Michigan can offer; this sounds like a Kodak moment, doesn't it? Who wouldn't love to take a vacation out on the lake or back in the woods? Who wouldn't love to sit out on the beaches of Northern Michigan late at night looking at the stars? For many Michiganders, this is how they spend their summer vacations. It is a peaceful time for them, away from all that ails them at home. There is a new concern for Americans; however, that is threatening the serenity that they are accustomed to when spending time in the outdoors. It is called the West Nile Virus. It is an usual type of virus because in order for humans to get it, a mosquito must bite them. This means that mosquitoes are now dangerous in addition to being a nuisance.

Mosquitoes are not the sole culprits in spreading the disease, however. Birds, house sparrows especially, also play a major role in how the disease proliferates. The virus is transferred to the bird as the mosquito draws blood and inserts a small amount of its saliva into the bird. The infected bird then carries the virus to a new location where new mosquitoes feed off the bird and contract the virus. Those infected mosquitoes then bite other birds and the cycle continues.

The West Nile Virus, which has gained increased attention in the U.S. over the last few years, is known to cause encephalitis and lead to symptoms such as fever, headache, skin rashes, and body aches in the milder forms of the infection. More severe infections can lead to people experiencing additional symptoms such as disorientation, coma, tremors, convulsions, and paralysis. There is a greater concern for senior citizens who become infected with the virus, because they are more likely to die from it than younger people. People who have compromised immune systems are also at a higher risk of dying from the disease.

The emergence of the virus in the Western Hemisphere has brought about a heightened awareness of the reality of mosquito-borne diseases. Most Americans had not heard of the West Nile Virus until 1999 when an outbreak occurred in New York. Over the last few years, the virus, which hit the East Coast first, has been making its way to the west and south. Recently, it was discovered here in Michigan. The virus, which is a relative of the viruses that cause yellow fever and dengue, could potentially ruin many family vacations and horribly alter many lives. It would only take one bite by an infected mosquito to destroy what was meant to be a fun time for the family. An even more frightening

thought is that there is the potential that the one mosquito bite could ruin more than just a vacation. In addition, there is no escaping the danger zone. There is no way to know where an outbreak could occur. So as long as there are mosquitoes around, there is the impending danger that they are carrying the virus.

The emergence of the virus is alarming for many reasons. There is of course the concern that an uncontrollable outbreak could occur. There is, however, what could be considered an even more alarming fact about the virus, which is what it suggests about the future of other diseases. The amount of interaction between the United States and foreign countries through means of air traffic is growing. There was a ten-year span between 1987 and 1997 in which the number of international flights serving New York City doubled.

Increased traffic between the United States and other countries, be it through passenger flights or cargo flights, makes the United States more vulnerable than ever to diseases that once were found only in other parts of the world. The advantages that come with increased relations with other countries have a price. There is very little authorities can do to regulate the situation. It is virtually impossible to check every flight and shipment to

the U. S. for hazardous contents, such as infected mosquitoes. The West Nile Virus may only be the beginning of a series of diseases that are brought to the U.S. through unsuspected vectors. The nature in which the West Nile virus spreads is disturbing since there is a limited amount of prevention. In addition, controlling methods are also limited.

The concern that an uncontrollable outbreak could occur is a huge concern for the general public. People do not like the idea that they are susceptible to getting the West Nile Virus even while completing everyday tasks at home or anywhere for that matter. People easily begin to panic. I have witnessed this for myself in the last few weeks. An avian blood sample taken by the Saginaw County Mosquito Abatement commission, where I have worked for two years, tested positive for St. Louis Encephalitis. The West Nile Virus can be easily mistaken for St. Louis encephalitis unless genetic testing is done. It was later confirmed that the positive blood sample was infected with St. Louis encephalitis and not the West Nile Virus, but the concerns from the public remained. The discovery of the West Nile Virus in Detroit only elevated the anxiety levels of those in Saginaw County.

People have learned to live with the common cold, but a mosquito-borne disease will not be accepted. Residents of Saginaw County and other parts of the country will not be satisfied until the threat is eliminated. Hence, the West Nile Virus is not only a threat, but it is a challenge to everyone involved in pest management programs.

The most challenging aspect of the West Nile Virus is that there really aren't any pre-emptive measures that can be taken to prevent the virus from spreading throughout the country. Surveillance programs are all that mosquito control agencies can enact to monitor for the appearance of the virus in a mosquito. Programs, like the ones I've been involved in through the Saginaw County Mosquito Abatement Commission, make it possible for birds and mosquitoes to be tested for the West Nile Virus. These programs cannot protect areas from being infiltrated by an infected bird or mosquito, but they can protect areas from having a serious outbreak after the emergence of a vector is established. Once there is an outbreak on the verge of existence, mosquito control agencies must use every means available to them to eradicate the mosquito population from the area in danger. Killing off the mosquitoes is virtually the only way an outbreak can be thwarted.

The West Nile Virus certainly is a new concern for North America. It promises to be a challenge to the ease with which we normally complete every day tasks and on a larger scale to pest management programs. The unusual nature of the transmission of the West Nile Virus will be a test for great minds. They will have to find a solution to the pending problems the virus presents. The efforts to control the virus will become more united as the virus creeps across North America and begins to affect more and more people. It is hard to say exactly how long that will take, since the rate at which the virus invades the country is based primarily on natural factors. Predictions have been made; however, that it is only a matter of years before the virus raids the West Coast.

So, as for the family vacations and the lazy days of summer, don't change your plans just yet. There isn't a reason to panic. The greatest efforts are being made to keep the problem under control. Just make sure to exercise caution when spending time outdoors and, of course: DON'T FORGET THE BUG SPRAY!

References

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