

COUNCIL REPORT: JULY 2003

By Ed Corrigan, Councillor Ward 7

WEST NILE VIRUS

Last year 17 people in Ontario died of West Nile Virus (WNV). Hundreds more got ill. Eighty percent of individuals who are exposed to WNV will show no symptoms of the infection. About 19.2% of those infected will have varying degrees of mild symptoms. Less than 1% will experience more serious neurological effects such as encephalitis.

One in a thousand (0.1%) who are exposed to WNV have unfortunately died. To put things in perspective more people will die of the Common Flu than WNV.

Patients from the GTA who had been hospitalized due to WNV have been monitored and after 1 year over 40% have ongoing chronic medical problems such as fatigue, memory loss, difficulty walking, muscle weakness and depression.

As of the time of writing this article there have been no human cases from 2003 exposures in Ontario reported. No bird or animal positive case of WNV has yet been diagnosed for London in 2003. Oxford and Haldimand-Norfolk counties have reported cases of WNV-positive crows.

The risk is relatively small but the City of London, the County of Middlesex and the Middlesex London Health Unit (MLHU) and the Province are taking the threat very seriously and are taking strong measures to control mosquito populations which can transmit WNV.

COST

The City and MLHU originally committed \$325,000 toward the mosquito control program which would cover one treatment. However, the Provincial Government issued new legislation on May 13, under the Health Protection and Promotion Act requiring local medical officers of health to conduct risk assessment for the purposes of mitigating impacts of WNV in the community, including the implementation of a mosquito control program. The Province only funded the program at 50% so the municipalities had to match the other 50% of the costs. London's unbudgeted additional costs were \$330,000 which have been approved by City Council.

The total cost of the WNV control program is \$1.1 million with the City's share \$460,000. This money will cover the cost of up to three mosquito larvicide treatments to public catch basins, surface water surveillance and larviciding, public education and promotion activities and surveillance programs for WNV.

A Provincially funded and controlled program covered would have been a preferred option and allowed for a more consistent province wide WNV control program.

PRIVATE LAND NOT COVERED

Only City owned, catch basins are being treated under the program. Catch basins on private property are the responsibility of the owner. There are a number of certified Pest Control companies who can do larviciding and they can be found in the phone book under Pest Control. A provincial program could have funded a more comprehensive control program which could

have included larviciding private property.

The good news is that the original estimate of 80,000 for the number of City owned catch basins was too high. Only 25,000 were found to exist. At a cost of \$3.35 plus GST per catch basin this resulted in a substantial saving. This money may allow for an expanded larviciding program in City Parks catch basins and for surface water larviciding. Any surplus monies will be retained in a reserve fund to cover future WNV needs.

TRANSMISSION OF DISEASE

There are only 8 mosquito species that are known to transmit West Nile Virus in Ontario. *Culex pipiens/restuans* and *Aedes vexans* are the two most common vectors of the disease in Ontario. They breed in any stagnant pool of water including catch basins, pool covers, eave throughs, gutters, rain barrels, buckets, bird baths ornamental ponds and discarded tires. Open water is not a preferred breeding area. You can reduce the risk of WNV by eliminating potential breeding sites in the vicinity of your home by regularly eliminating sources of stagnant water. You should also use a mosquito repellent and cover exposed skin to reduce the risk of being bitten.

CONTROL

The first round of catch basin larvicide treatments was completed on June 17, 2003 by the contractor hired by the MLHU. Each treated catch basin was marked with a green paint dot. Red dots indicated that there was no standing water in the basin so larviciding was not required. Catch basins within a hundred feet of the Thames were marked yellow which indicated that they are to be treated later with a "larvasonic" device which uses sound waves to destroy larvae rather than a chemical to minimize environmental impacts.

It is far more effective to control mosquitos in the larvae stage than as winged adults. Two main types of larvicide are approved for use in Ontario.

Bacillus thuringiensis israelensis or Bti, is a naturally occurring bacterium which kills the larva of mosquitos and black flies when ingested. Bti is being used in open areas and for surface water larviciding. The bacterium kills mosquito larvae and does not affect mammals or other aquatic species. Bti is reportedly environmentally safe but can irritate the skin when it comes into contact with broken skin. Bti for home use is now available at some local garden and hardware stores.

Methoprene, is an insect growth inhibitor which prevents the mosquito larvae from maturing to adults, is being used in catch basins away from streams and rivers and it degrades quickly when exposed to sunlight so the adverse environmental impacts are limited. Methoprene must be applied by a certified pesticide applicator and product labeling directions must be followed. According to a report prepared by the MLHU there is "little risk to people when used according to label instructions." Methoprene is not carcinogenic or mutagenic and has no reproductive hazards. The MLHU reports that there is some evidence that it has "slightly toxic effects to birds and fresh water fish." However, it is described as very highly toxic to fresh water invertebrates. Since its use is restricted to the stagnant water found in catch basins, little environmental impacts are anticipated.

FOR MORE INFORMATION ON WEST NILE VIRUS

If you have concerns about WNV, you can call the Middlesex London Health Unit at 663-5317. The extension for communicable diseases is 2330 if you suspect you have symptoms of WNV or want to know more about the virus. The MLHU extension for the Environmental Health Department is 2300. If you are reporting a dead crow, you can leave the necessary information at extension 3323. Jim Reffle is the Director of Environmental Health & Chronic Disease Prevention Services at the Health Unit. Also see your family doctor if you suspect that you have symptoms of WNV. For more information on WNV Control programs and the necessary permits needed from the MOE for the use of larvicides by private licensed pest control contractors you can contact Gary Roberts Pest Control Coordinator at the Ministry of the Environment at 873-5000.

I would like to hear your views on this subject and any other City related matters. My email address is ecorriga@city.london.on.ca. I can also be reached at City Hall at 661-1558 or at home at 652-0973.

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