

## When covering up is a good thing *Family physicians' role in educating the public about West Nile virus*

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*"Remove standing water from around your home to eliminate mosquito breeding sites." "Prevent mosquito bites by covering up and using mosquito repellent containing DEET."*

These were my mantras about protective measures against West Nile virus (WNV). I repeated these key messages over and over in my previous position as an Associate Medical Officer of Health in Toronto, Ont. I would recite them to deadline-pressed reporters, to anxious Torontonians at community group meetings, to colleagues in the western provinces as they braced themselves for the onslaught of this exotic new epidemic heading their way, to bewildered strangers at cocktail parties—basically, to anyone who would listen. In fact, I spent a large chunk of my first 3 years of professional life, from 2001 to 2004, thinking about, developing, and delivering clear, coherent public educational messages about WNV.

But what is all the fuss about WNV, anyway? We know that for about 80% of people infected with WNV, there are no clinical symptoms and no sequelae.<sup>1</sup> We know that of the remaining 20% of cases, the vast majority will have a nonspecific, flulike syndrome that will resolve on its own. We have seen that only about 1 in 150 infected people will progress to more severe clinical symptoms, developing meningitis or encephalitis. We also know that from August 2002, when we saw the first human case of WNV infection acquired in Canada, to December 2004, there have been 1839 reported clinical cases and 34 deaths from WNV in Canada (compared with an estimated 60 000 hospitalizations and 8000 deaths from influenza and community-acquired pneumonia in Canada every

year).<sup>2</sup> Three quarters of the WNV cases occurred during the particularly severe 2003 season. So why should we be so concerned about a virus that has had relatively little effect on the population?

The answer lies in the fact that, as the epidemic unfolded, although the number of severe cases was quite small (181 reported cases of West Nile virus neurologic syndromes in 2003 and 2004), it was not only the purportedly vulnerable populations that were falling ill. Early in the epidemic, severe cases of WNV infection were expected among the immunocompromised, the elderly, and those with pre-existing illnesses. But it soon became apparent that young, healthy people were also presenting with serious neurologic impairment from WNV infection. In other words, it was impossible to predict who would get very sick from a WNV infection; the prudent course of action was to alert the general population.

To best prevent cases of WNV, it was vital to educate the public about the virus and particularly about the personal protective measures people could take. Large-scale interventions, like use of pesticides to reduce the size of mosquito populations, might be helpful in decreasing the overall incidence of disease from WNV. It is impossible (and undesirable from an ecologic perspective), however, to kill every mosquito in an area. As a result, there is always a chance that a person will come in contact with a mosquito that is infected and infective. Personal protective measures, such as covering up exposed skin with clothing, using mosquito repellent, and avoiding areas where there are a lot of mosquitoes, are the last and, ultimately, the best line of defense against WNV infection. The fewer mosquito bites you get over the course of the

season, the less likely you are to be infected with WNV. As is the case with many other public health issues, it comes down to trying to minimize risk by communicating with the public.

Even at the best of times, with the simplest and most easily understood health issues, effective risk communication is an irksome task. Happily, theoretical approaches can help. Every good community medicine specialist is all too familiar with the tenets of risk communication. Covello and Allen nicely summed up the seven cardinal rules of risk communication in their seminal 1988 article<sup>3</sup>:

1. Accept and involve the public as a partner.
2. Plan carefully and evaluate your efforts.
3. Listen to the public's specific concerns.
4. Be honest, frank, and open.
5. Work with other credible sources.
6. Meet the needs of the media.
7. Speak clearly and with compassion.

These rules are useful in building an effective communication strategy because they make for an open and inclusive process. Although each point is quite obvious and makes intuitive sense, there are complexities that arise in the practical application of these rules. In particular, rules 3 and 6 warrant further discussion.

### **Rule 3: listen to the public's specific concerns**

We all know that the public perceives risk differently from the way health professionals do. For the general public, things that are unfamiliar and beyond the control of an individual are considered risky.<sup>4</sup> Health professionals tend to approach risk assessment more scientifically, valuing a dispassionate examination of evidence, relying on statistical calculation, and trusting authority and expertise. Further, health professionals usually have an existing familiarity and comfort level with a given health issue and access to new information that becomes available on that topic. Meanwhile, the public relies mainly on the popular media for information on emerging health issues.

The fact that the public looks to the media for health information can be troublesome. The general approach of the media is to convey information in the narrative voice. Reporters generate interest in the topics they cover by telling interesting stories, often distilling them to their most dramatic elements. Depending on how this is done, stories can become sensationalized; but even if this is not the case, the messages health professionals are trying to convey can get lost in the narrative.

It is important to remember that media outlets are primarily businesses, and although they might be dedicated to the ideals of journalistic integrity and quality, their ultimate goal is to attract an audience that advertisers will pay to reach. As a result, journalists often behave as they do to achieve their economic goals. Put fresh meat in front of a lion, and you can predict what will happen next. Similarly, put an intriguing story of a deadly mosquito-borne virus making its way across North America in front of the media, and they will do their best to sell that story.

### **Rule 6: meet the needs of the media**

The analogy of the lion is particularly appropriate when talking about the media. Just like lions, in order to be kept happy, the media must be fed regularly. Health professionals must provide the media with enough good information to help them tell their stories. Also, health professionals need to cultivate relationships with reporters (and particularly with reporters on the health beat) in order to help them develop a deeper understanding of the health issues they are writing about. This will help to ensure that the most accurate and useful information gets to the public. If we as health professionals understand the nature of the media, we can train them to do what we want them to do—within reason. Present information in a concise and interesting way, and, chances are, the media will run your story.

These insights on the nature of the media are particularly useful to public health practitioners who are charged with the responsibility of educating the public at large. But what does this mean for clinicians in practice? Family physicians have a vital role in ensuring that the public is armed with good information.

Patients look at their primary care providers as gatekeepers to health information and interpreters of the science of health, and, as such, family doctors are well positioned to ensure that patients have a good understanding of the best information available.

West Nile virus is a disease-causing organism that may be best understood and controlled at a population level, but it is clear that the best chance of preventing individual cases lies in well informed people who are aware of the appropriate precautions and take them. That is where family physicians can be most effective in this epidemic. Be prepared to provide your patients with accurate and up-to-date information about WNV. The primer by MacDonald and Krym in this issue of *Canadian Family Physician* (page 833) can help. Contact your local public health department for additional resources and to find out how to report suspected cases. And, of course, remember the mantras of prevention: “Remove standing water” and “Cover up.” ❁

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## Care for psychological problems

### *Collaborative approach in primary care*

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The literature supports the idea that mental and physical illnesses are interrelated.<sup>1-3</sup> In addressing both psychological and somatic issues, primary care physicians can partner with psychiatrists, psychologists, counselors, social workers, and registered nurses. Many reports have described collaborative approaches.<sup>4-7</sup> Some have suggested that psychological issues can be appropriately addressed by psychologists.<sup>8,9</sup> This paper looks specifically at what psychologists can bring to collaborative relationships.

Family physicians have a major role in treatment of psychological problems.<sup>10,11</sup> Such problems can include depression, anxiety, stress-related disorders, psychosomatic illnesses, drug and alcohol abuse, domestic violence, adjustment problems

related to chronic and traumatic illnesses, marital or sexual problems, and psychophysiological and pain disorders.<sup>12</sup>

#### Effective treatment

It is important to consider the effectiveness of treatment for psychological illness: medication, psychotherapy, or a combination? Results reported in the literature are mixed.<sup>13,14</sup> Much of the research, however, suggests that treating psychological illnesses with a combination of psychotherapy and medication produces the best results.<sup>15-17</sup> If this is so, referring patients to psychologists could improve care.

Many psychological issues that present in primary care cannot be resolved with medication alone. Other disorders, such as hypertension, can