Prevention

Protective measures can reduce the risk of infection

- Use insect repellent on exposed skin to repel mosquitoes. DEET formulations as high as 50% are recommended for both adults and children over 2 months of age

- When using sunscreen, apply sunscreen first & then repellent. Repellent should be washed off at before going to bed

- Wear long-sleeve shirts, which should be tucked in, long pants, & hats to cover skin

- Apply insect repellents to clothing, shoes, tents, mosquito nets, and other gear for greater protection

Prevention: (cont.)

- Be aware that most mosquitoes that transmit disease are more active during twilight periods (dawn & dusk or in the evening)

- Stay in air-conditioned or well-screened housing, and/or sleeping under a treated bed net. Bed nets should be tucked under mattresses & can be sprayed with a repellent if not already treated with insecticide
West Nile Virus

**West Nile Virus** (WNV) is an arbovirus most commonly transmitted to humans by mosquitoes. West Nile is predominantly found in temperate & tropical regions of the world & has been a major public health concern since arriving in the U.S. in 1999. West Nile virus generally occurs in late summer & early fall but can occur year round in warmer climates. While some people show no signs of infection, others show flu-like symptoms including headache, fatigue, rash & body ache. In rare cases, the virus can affect the brain & spinal cord. According to the Centers for Disease Control and Prevention, four percent of West Nile cases in the U.S. are fatal. A doctor’s visit is needed to make an accurate diagnosis & standard hospital care may help decrease complications in severe cases.

**EPIDEMIOLOGY:**

Prior to the mid-1990s, WNV disease occurred only sporadically & was considered a minor risk for humans, until an outbreak in Algeria in 1994. WNV has now spread globally, with the first case in the Western Hemisphere being identified in New York City in 1999; over the next 5 years, the virus spread across the continental United States, north into Canada, and southward into the Caribbean Islands and Latin America.

WNV also spread to Europe, beyond the Mediterranean Basin, and a new strain of the virus was identified in Italy in 2012. WNV is now considered to be an endemic pathogen in Africa, Asia, Australia, the Middle East, Europe and in the United States, which in 2012 has experienced one of its worst epidemics.

**EPIDEMIOLOGY (cont.)**

In 2012, the virus killed 286 people in the United States, making the year the deadliest on record for the United States. The disease can also have major economic consequences, with last year’s outbreak in Texas causing an estimated $47 million in losses, largely due to lost workdays.

**In Illinois**, West Nile virus was first identified in September 2001 in two dead crows found in the Chicago area. The following year, the state’s first human cases & deaths from West Nile disease were recorded & all but two of the state’s 102 counties eventually reported a positive human, bird, mosquito or horse. By the end of 2002, Illinois had counted more human cases (884) & deaths (67) than any other state in the US.

Chicago health officials reported the city’s first 2013 human case of West Nile virus this summer, and Chicago residents are asked to call 311 to report standing water, dead birds or high grass/weeds.

**CLIMATE CHANGE & WNV:**

Researchers believe that warm summers in 1999 & 2002-3 allowed mosquito populations to take hold. However, the climate factors of temperature & precipitation must be considered to ultimately determine the impacts on mosquito populations.

As the climate changes, projections of warmer & wetter weather point to a West Nile Virus season that may begin earlier & end later in the year.