



**THE PUBLIC ADVOCATE
FOR THE CITY OF NEW YORK
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**Policy Report:
Protecting New
Yorkers from the
Zika Virus**

**Recommendations for
pregnant women, travelers,
and the community**

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EXECUTIVE SUMMARY

Education about potential health risks and preventative measures are the best defense against any illness. Increasing numbers of people are being infected with the Zika virus in the United States as a result of travel to regions with active Zika transmission, and most recently, through transmission from Zika-carrying mosquitoes. Those without access to quality healthcare, including reproductive healthcare, and other preventative measures may be at greater risk for exposure to the virus. The purpose of this report is to provide new measures to combat the threat and spread of the Zika virus in New York City.

INTRODUCTION

Zika is caused by a virus transmitted primarily by *Aedes* mosquitoes. Common symptoms of the virus include fever, rash, joint pain, and conjunctivitis (commonly known as pink eye). These symptoms can last from two to seven days and are usually mild, meaning many people with the Zika virus may not even realize they have been infected. Currently, there is no vaccine for the Zika virus.¹

The Zika virus can also be transmitted during pregnancy, at birth, and through sexual contact.² A woman can pass the Zika virus to her fetus, which may in some cases cause microcephaly – a severe birth defect where a baby’s head is much smaller than expected due to abnormal brain development. In a small number of cases, the Zika virus may also cause Guillain-Barré syndrome – in which the body’s immune system attacks part of the peripheral nervous system, causing muscle weakness and paralysis.^{3 4}

In early 2015, Brazil experienced the first significant outbreak of the Zika virus in the Western Hemisphere.⁵ Since then, the virus has been found in 67 countries and territories, including many in Latin America and recently in the United States.⁶ As of August 3, 2016, there have been 1,818 travel-associated cases of the virus reported in the United States (excluding territories), including 479 pregnant women.^{7 8} The U.S. territory of Puerto Rico is currently experiencing a serious outbreak, with 5,460 locally transmitted Zika cases reported as of August 3, 2016.⁹ Globally, the virus has infected millions, and the numbers are expected to increase substantially by the end of 2016. According to the World Health Organization (WHO), there could be upwards of four million cases by the end of this year.¹⁰ Additionally, there have been close to 2,000 reported cases of microcephaly and other central nervous system malformations potentially associated with the Zika

virus, including 1,749 cases in Brazil and 18 cases in the U.S as of July 27, 2016.¹¹

A recent report by the Center for American Progress (CAP) estimates that approximately 117,000 women will be expecting pregnancies in New York City during the high mosquito season between July and October of 2016.¹² CAP explains that individuals may be at greater risk of exposure to the virus if they reside in regions where Zika-carrying mosquitoes are prevalent, such as Florida, and “live in homes without air conditioning or door and window screens or hold jobs that require extended periods of time outside.”¹³ This calls for greater vigilance as people travel to other countries and infected regions of the United States. Efforts must be made to limit the spread of the virus through increased access to quality healthcare, including reproductive healthcare, educational outreach, and the distribution of mosquito repellent.



COMBATING A GLOBAL THREAT

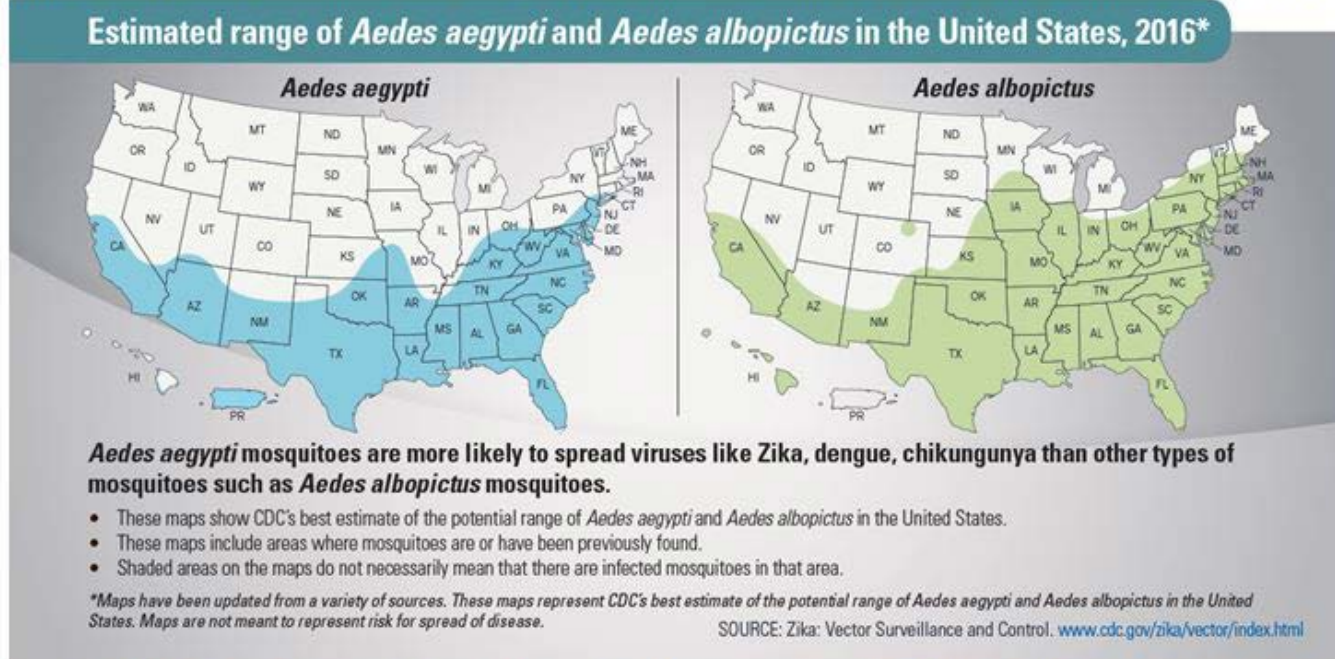
Transmission and the Spread of the Zika Virus

The Zika virus is primarily transmitted to people who are bitten by an infected mosquito of the *Aedes* genus. These mosquitos can breed even in the smallest pools of water and usually bite during the day. The *Aedes aegypti*, also known as the yellow fever mosquito, is the one that has spread most of the Zika cases. It is common in Florida, along the Gulf Coast, and in Hawaii, and can be found as far north as Connecticut in warm weather. Fortunately, the yellow fever mosquito is not typically found in New York City. The *Aedes albopictus*, also known as Asian tiger mosquito, can also carry the Zika virus, and has been found as far north as Maine during the summer, although experts have not confirmed whether it can transmit Zika (**Figure 1**).^{14 15}

While the vast majority of Zika infections are transmitted by mosquitoes, there is also evidence of the virus being sexually transmitted from one partner to another, and from mother to fetus during pregnancy. Reports show that the virus can cross the placenta and attack fetal nerve cells, which can lead to microcephaly, and other severe birth defects.¹⁶

In March 2016, the Centers for Disease Control and Prevention (CDC) recommended that all pregnant women who have visited an area with active Zika transmission undergo a blood test, followed by a fetal ultrasound, to determine if they contracted the virus, whether or not they are displaying symptoms. A blood test can determine if a woman has the Zika virus, while the fetal ultrasound shows evidence of fetal microcephaly or other birth defects.¹⁷

Figure 1: Estimated Range of *Aedes Aegypti* and *Aedes Albopictus* in the United States, 2016¹⁸



Source: Zika: Vector Surveillance and Control, Centers for Disease Control and Prevention

Summer Travel to Areas with Zika and Ties to the Local Community

Prior to 2015, Zika virus outbreaks occurred mainly in Africa, Southeast Asia, and areas of the Pacific Islands.¹⁹ The CDC has categorized countries in those regions as endemic hosts of the Zika virus, meaning these countries have reported cases in the past and a large number of local residents are likely to be immune, so occasional cases may occur, but generally will not become outbreaks. The risk to travelers is lower in these countries than in epidemic countries like Brazil, and numerous countries in Central America, South America, the Caribbean, and other parts of the Pacific Islands that only started experiencing Zika virus infections in 2015.²⁰ The CDC currently has a travel alert in all of these countries noting an “increased risk” of infection and cautioning that “certain high-risk populations may wish to delay travel to these destinations.”²¹

Most recently, the Zika virus has been reported in Puerto Rico, the U.S. Virgin Islands, American Samoa, and the Wynwood neighborhood in Miami, Florida, where the virus is being spread by mosquitoes on the mainland U.S. for the first time. Health officials also suggest that pregnant women should not travel to the area of Miami where local cases of Zika virus were found.²²

According to the CDC, 1,818 travel-associated cases have been reported in the U.S., including 16 cases through sexual transmission and five cases with Guillain-Barré syndrome as of August 3, 2016. Twenty-seven percent, or 491 travel-associated cases, occurred in New York, the highest number of any state.²³

Specifically, in New York City, there have been 387 reported cases of the Zika virus, including 45 cases involving women who were pregnant, as of July 29, 2016.²⁴ In all of the cases, the virus was contracted while traveling to other countries and all patients have recovered.²⁵ But with the recent outbreaks, the number of Zika cases among travelers visiting or returning to the United States will likely increase. Consequently, there is a risk that these imported cases could result in local spread of the virus in some areas of the United States if

a mosquito acquires the virus from an individual with Zika and passes it on to other people (**Figure 2**).^{26 27}

Of the 387 cases reported in New York City, 62 percent - or 240 cases - occurred in people who recently visited the Dominican Republic, followed by Puerto Rico with 31 cases.^{28 29} According to recent Census data, people of Dominican descent have in recent years surpassed Puerto Ricans as the largest Latino community in New York City with 747,473 Dominicans and 719,444 Puerto Ricans respectively.³⁰ Recent immigrants are more likely to travel between New York and their home country, and regular travel to these regions can lead to increased risk of exposure to Zika while visiting.

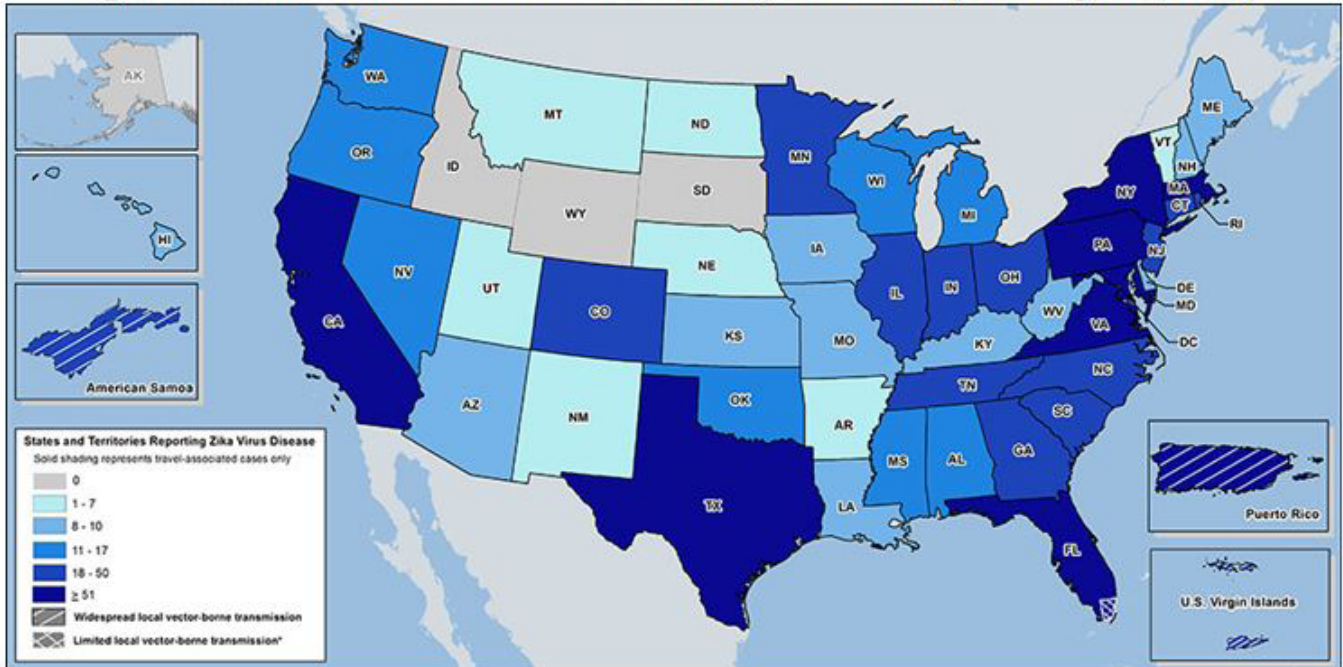
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Figure 2: Zika Virus Disease in the United States, 2015–2016 (as of August 3, 2016)³¹



Source: Centers for Disease Control and Prevention

PUSHING THE FEDERAL GOVERNMENT FOR SUPPORT AND FUNDING

Getting Congress to Act in Time

In February 2016, the Obama Administration asked Congress for \$1.9 billion in funding to develop a vaccine against the Zika virus, to provide people—especially pregnant women—with easier access to testing, and to conduct epidemiologic studies and track the spread of the virus particularly in the Southern U.S.³² To date, Congress has failed to pass a comprehensive Zika-funding bill with their last unsuccessful attempt on June 28, 2016.³³ At this rate, health officials fear that Congress will not pass funding until September, when they return to Washington, D.C. from their summer recess.³⁴ Such a delay is unacceptable, and could allow the unchecked spread of this dangerous virus.

Protecting Puerto Rico

After local mosquito transmission of the Zika virus was reported in Puerto Rico, the CDC put the U.S. territory on Level 2 Alert, advising communities to take “enhanced precautions.”³⁶ President Obama has requested that \$750 million of the \$1.9 billion funding go to Puerto Rico; but, as the territory enters its rainy season, the current lack of funding could have serious effects on its 3.5 million residents.³⁷ In a region where half of the population lives in poverty and relies on Medicaid for health insurance coverage, the effects of the Zika virus are only exacerbated by Puerto Rico’s debt crisis.^{37 38 39} On June 29, 2016, President Obama signed into law the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA) to alleviate the territory’s economic situation. PROMESA also includes an amendment allowing a task force to study whether Puerto Rico could receive the same treatment under federal healthcare programs as other states, a stepping stone to providing equitable healthcare.^{40 41} These efforts must be sped up to ensure that the Zika epidemic is not allowed to grow exponentially.



PROTECTING NEW YORK CITY RESIDENTS

Hot weather is conducive to potential mosquito breeding sites due to areas with standing water and poor drainage, and *Aedes aegypti* mosquito can breed even in a body of water the size of a bottle cap.⁴² The summer is also a busy time in the City as millions of tourists visit New York, and many residents engage in domestic and international travel, including to countries where there is a Zika epidemic.

While mosquito bites are the primary mode of transmission, experts believe that sexual transmission is more responsible for driving the Zika epidemic than was initially assumed.⁴³ The virus, which can be found in semen for months after infection, even in extremely mild cases, can be spread through sexual contact.⁴⁴ Most people infected with the Zika virus experience only mild symptoms before recovering and later developing immunity, so the danger of unknowing transmission is high and expanded testing and awareness is critical.⁴⁵ The greatest danger is to pregnant women who may transmit microcephaly or other birth defects to their unborn children.⁴⁶ Consequently, it is vital to provide people traveling to regions with Zika, especially pregnant women, with the information, resources, and care they need.

Many of the City's most vulnerable groups who lack resources would also be put at risk. As such, it is critical people exercise caution as the City takes aggressive steps to monitor the potential outbreak.

Provide Counseling, Support, and Family Planning Options

1. Support Access to Family Planning Services

With the spread of the Zika virus, it is even more important that individuals have access to family planning services. People should also have access to preconception counseling to discuss the signs, symptoms, and effects of the Zika virus. Since the virus can linger in the body even after symptoms subside, individuals should have medically accurate information to decide if, or when, to plan a pregnancy.⁴⁷

In addition to family planning services, the City should ensure availability of comprehensive reproductive health care, including prenatal care, postnatal care, and access to safe and legal abortion. When a woman tests positive for the Zika virus, the birth defects associated with the virus may not be discovered until 20 weeks into pregnancy.⁴⁸ Women deserve access to the full spectrum of sexual and reproductive health care so they can make informed decisions. Women must also have access to education, counseling, and pediatric care should they give birth to infants with microcephaly. Babies with these conditions will need routine check-ups to monitor growth and development. They may also require speech, occupational, and physical therapy.⁴⁹

New York State should also provide pregnant women with extended services due to the health concerns related to the Zika virus.⁵⁰ Currently, the CDC recommends pregnant women receive serial ultrasounds every three to four weeks to monitor the health of the fetus.⁵¹ Providing extended services would allow expectant mothers to obtain the healthcare they need without undue financial burden.

2. Increase Zika Screenings

Because individuals infected with the Zika virus tend to display mild symptoms, diagnostic services are crucial to definitively determining whether a person has the Zika virus. Proper diagnosis is critical, especially in the case of pregnant women where birth defects are a possibility. The CDC currently recommends that pregnant women who had possible exposure to the virus undergo a blood test and a fetal ultrasound within two weeks of travel.⁵² If abnormalities are detected, healthcare providers may conduct a CAT scan to determine the health of the woman and fetus.⁵³ Pregnant women who have traveled to an area with active transmission but display no symptoms can and should still be tested for the virus up to twelve weeks after returning if they have not undergone testing during the recommended timeframe.⁵⁴ New York State should also ensure that Medicaid make allowances for additional testing.

3. Expand Zika Protection Kits for New York City

In the 6-Step New York State Zika Action Plan, the State made available 20,000 free Zika Protection Kits to low-income pregnant women living in ten targeted regions of New York State at risk for Zika, including New York City.⁵⁵ The kits contain educational materials, insect repellent, condoms, and mosquito dunks which treat water in containers that cannot be emptied to prevent mosquitoes from breeding.⁵⁶ Given the fact that there are approximately 117,000 pregnant women potentially at risk for Zika in New York City alone, New York State should significantly increase the number of free kits available.⁵⁷ As the threat of the Zika virus is exacerbated by the warmer weather, pregnant women, and women of reproductive age, should have the resources to protect themselves.

4. Direct the NYC Department of Health and Mental Hygiene (DOHMH) to Hold Educational Briefings in Communities at Risk for Zika

While the presence of the Zika virus was confirmed in the Western Hemisphere in 2015, experts today are still researching its rapid spread.⁵⁸ In order to protect New Yorkers from the Zika virus, the DOHMH stated that it will conduct outreach with various community-based and faith-based organizations throughout the City. Among their outreach activities, DOHMH should hold educational briefings to inform people about health risks and methods of prevention, and distribute free condoms. These presentations should also be available in various languages to serve New York's diverse population, and a comprehensive list of all DOHMH briefings should be circulated to maximize attendance.

Increase Federal Support for Education

1. Distribute Zika Virus Information at Airports to People Arriving to New York City from High-Risk Countries

Since the Zika virus can be transmitted sexually and through mosquito bites, travelers entering and exiting New York City from countries where the Zika virus is present should be given information about its signs and symptoms, ways to seek treatment, and the practice of safe sex. Travelers should also receive information about steps to prevent mosquito bites so that Zika does not spread to mosquitos that could spread the virus to other people in the City.⁵⁹



Provide Resources to Prevent the Risk of Mosquito-Transmission Zika

1. Direct the New York State Medicaid Program to Cover Mosquito Repellent

The New York State Medicaid program has the ability to cover mosquito repellent, if prescribed by a healthcare professional, per directions from the federal government.⁶⁰ The State of New York should take advantage of this option and make repellent a covered expense under Medicaid. Moreover, New York City Health & Hospitals (HHC) and the DOHMH should advertise how pregnant women may receive free repellent. If traveling to regions with active mosquito-borne transmission of Zika virus, travelers should be encouraged to take repellent with them.

2. Distribute Zika Protection Kits to all Homeless Shelters

In recent years, New York City's homeless population has reached its highest level since the Great Depression. In April 2016, it was reported that over 60,000 New Yorkers, three quarters of which were families with children, entered the City's shelter system.⁶¹ In Fiscal Year 2015 alone, more than 109,000 different homeless men, women, and children slept in the New York City municipal shelter system while thousands more were unsheltered.⁶² In an effort to assist one of the City's most vulnerable populations, who have limited resources, the State's Zika Protection Kits should also be distributed to homeless shelters.

3. Provide Grants for Free Window Screens for NYCHA Residents

In an effort to assist those who may be most vulnerable to Zika transmission due to lack of resources, New York City Housing Authority (NYCHA) residents should be able to receive free window screens that will enable them to protect themselves against mosquitoes this summer. With the recent cases of locally-transmitted Zika in Miami, measures must be taken in New York City to prevent the health issues associated with Zika virus.

CONCLUSION

During the height of the summer months, there is a chance that Zika may be spread via mosquitoes in New York City. Therefore it is crucial that City, state and federal governments act to get ahead of this epidemic. Zika virus can be transmitted through a mosquito bite, sexual intercourse, during pregnancy, and at birth. While most people can have Zika and experience little or no symptoms, pregnant women are in danger of birth defects and other health complications. However, there is an opportunity to reduce this threat through the spread of education and resources. By expanding educational outreach, access to quality healthcare, and informed reproductive planning, New Yorkers will be able to take preventative measures against Zika even as they travel to many regions with active mosquito-borne transmission of the virus.



ACKNOWLEDGEMENTS

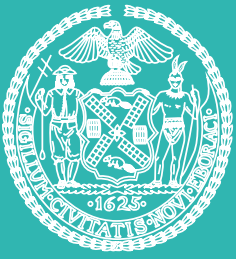
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