



Insight

The Zika Fight: Risks vs Massive Expenditures

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INTRODUCTION

With Congress mired in an ongoing dispute over how to fund Zika Virus prevention and research, it is worth examining what the Zika threat is, what the government can do to stop it, and why Congress is so divided over these funds.

ZIKA RISKS

Zika is a flu-like virus that is spread by mosquito bites. Most victims are asymptomatic, but some women who are infected during pregnancy, particularly in the first trimester, are at increased risk of delivering babies with birth defects such as microcephaly. It is also connected to Guillain-Barré syndrome, a rare but serious nervous system disease that can result in paralysis.

What researchers know about Zika, and its connection with birth defects, pales in comparison to what they do not know. We do not know how quickly the virus will spread among the local mosquito populations, how likely a person is to become infected if they are bitten by an infected mosquito, how likely an infected pregnant woman is to pass the virus on to the fetus, how likely that fetus is to develop Zika, how far into development the fetus is vulnerable to the disease, or how likely an infected fetus is to develop birth defects.^[1]

We do know that only 20 percent of people who are infected with Zika develop symptoms, and that the vast majority of cases resulting in birth defects were preceded by symptoms, which implies at most only 20 percent of infected women are even capable of transmitting the disease to a fetus.^[2] We also know that a similar virus, cytomegalovirus, or CMV, which also causes birth defects such as microcephaly, only one-third of infected women transmitted the disease to the fetus; of those only one-in-five develop CMV, and of those, only 10 percent develop birth defects.^[3] We further know that it is possible for men to transmit Zika to women sexually, making it not only a public health threat for women and babies, but for men as well.

Some of what we thought we knew about Zika has also recently been thrown into doubt. Early news reports stated that between October 2015 and the present, 4,100 new cases of microcephaly have been reported in Brazil, up from a historical average of around 500 per year, kicking off the Zika panic. However, Brazil's health department has not been particularly diligent in monitoring microcephaly in past years because it affected such a small fraction of the population and has myriad causes. Actual microcephaly rates in past years may have been significantly higher or lower.

Furthermore, the health department in Brazil was using overly broad criteria to diagnose a suspected case of microcephaly. A follow-up investigation found that up to 63 percent of reported cases were in fact false positives, bringing the 2015-2016 numbers back down to about 1,500.^[4] Of that 1,500, at least 500 of those

cases would have been caused by something other than Zika according to historical averages. However, one thousand Zika-related birth defects is still a tragedy that deserves serious attention.

WHAT THE GOVERNMENT CAN DO

The Center for Disease Control (CDC) is primarily concerned about pregnant women living in southern border states who are most likely to come into contact with infected mosquitoes. Prevention, treatment, and eradication of public health threats is the standard approach, though it may not be entirely appropriate in this case.

The president's request for Zika funding proposed \$1.9 billion in spending on prevention, treatment, and cures for "Zika readiness and response," "enhance[d] mosquito-control programs," "improv[ing] infrastructure to test for Zika," tracking the spread of the virus, and educating at-risk individuals and communities of the risks, among other goals.^[5]

\$200 million would be spent on vaccine research and diagnostic development, \$210 million is to be set aside for "other HHS response Activities" to address future "emerging needs related to Zika." There is an additional about \$400 million to be spent on international development in counties at-risk of Zika.

While many of the administration's domestic goals are ones most Americans would enthusiastically support, it is unclear how necessary or effective they would actually be. For example, the Zika virus is far from the first mosquito or vector-borne threat the US has faced in recent memory. Infrastructure should already exist from previous Yellow Fever and West Nile outbreaks.

Anyone who has had a common cold knows, viruses are incredibly difficult to treat pharmaceutically. That's because a virus, as opposed to fungus or bacteria, will hide itself in its host's very cells, making it difficult to attack the virus without compromising healthy cells.^[6]

Likewise, vaccination, which often is a good method of preventing viral infection, would take time to develop. Unfortunately, even if a vaccine was developed in time for this—or even next—mosquito season, the general risk of Zika is too low to warrant an exemption to the FDA's drug approval process, which can take several years. The risk is primarily to pregnant women, on whom it would be dangerous and perhaps unethical to experiment with untested vaccines in order to eliminate what is already a very small risk, and because the virus is vector-transmitted, herd immunity from others who are vaccinated will do little to protect these pregnant women.

Furthermore, the White House's proposal to spend \$335 million on international vector management programs is perhaps a day late and \$335 million over budget. The outbreak has already taken hold and envelopes the entirety of South and Central America. Actions taken now will do little to protect Americans from Zika. Any other actions taken to protect and support pregnant women in those countries are admirable humanitarian efforts, but not a US emergency.

THE HOLD UP

Congressional leaders have been under attack for their unwillingness to spend the White House's proposed \$1.9 billion with little or no guarantee about how, when, and where that money will be used.

Many lawmakers seem unconvinced that the full \$1.9 billion is necessary. During the Ebola panic, Congress appropriated \$5.4 billion towards Emergency Ebola activities, over half of which was never even used.

Lawmakers have also requested clarification about whether the money must all be paid out immediately or whether some may be taken out of future budgets – they have not received a response.

Congressional leaders have, however, offered to give \$1.1 billion now for Zika funding while leaving the option open to commit more later.[7] Combined with the \$500 million redirection from left-over Ebola funds, this figure comes in only \$300 million below the administration’s exceptionally high initial ask.[8] Yet White House allies in Congress have refused this offer outright, instead demanding the full \$1.9 billion originally requested by the White House.[9] More recent debate has arisen over what some consider “poison pills” included in the House-passed bill, particularly a list of approved health centers which will receive federal Zika-funding that does not include Planned Parenthood.[10] This omission, according to the administration, is grounds for a veto.

[1] <http://www.cdc.gov/zika/pregnancy/question-answers.html>

[2] http://apps.who.int/iris/bitstream/10665/204348/1/zikasitrep_5Feb2016_eng.pdf?ua=1

[3] <http://qz.com/613327/the-cmv-virus-causes-microcephaly-in-babies-and-its-much-wider-spread-than-zika/>

[4] <http://portalsaude.saude.gov.br/index.php/cidadao/principal/agencia-saude/21890-ministerio-da-saude-investiga-3-448-casos-suspeitos-de-microcefalia>

[5] <https://www.whitehouse.gov/the-press-office/2016/02/08/fact-sheet-preparing-and-responding-zika-virus-home-and-abroad>

[6] <http://www.bbc.co.uk/science/0/21143412>

[7] <http://www.bloomberg.com/politics/articles/2016-05-11/feeling-heat-on-zika-senate-republicans-set-to-approve-funding>

[8] http://www.nytimes.com/2016/04/27/us/politics/zika-virus-senate-emergency-funding.html?_r=1

[9] http://www.nytimes.com/2016/05/12/opinion/congress-to-america-drop-dead.html?smid=nytcore-ipad-share&smprod=nytcore-ipad&_r=1

[10] <https://morningconsult.com/2016/06/28/zika-funding-vote-after-july-fourth-recess/>.