NEW ZEALAND BIOSECURE

BORDER HEALTH NEWSLETTER – January 2016

The ZIKA Issue

WELCOME!

Hi everybody! For the last few weeks I have heard "Zika, Zika, Zika!" The media have reported about the new virus (although it's been around for decades only that not much attention was paid to it until recently) and, especially since the WHO has declared the Zika outbreak a global health emergency, the Mozzie Hotline has run hot indeed. People calling because they think they have been bitten by "A ZIKA MOSQUITO" although there are no mosquitoes in New Zealand that transmit the Zika virus.

The "fact" that pregnant woman who are infected by the virus give birth to children with microcephaly is still yet to be proven and was followed by a new outbreak of more Zika conspiracy theories e.g. that genetically-modified mosquitoes are to blame. So we will take the chance and try to give a decent overview what has been discussed so far.

SAMPLES

During January 896 samples were collected by staff of 12 DHBs with 300 positive. A part from the high numbers of adult *Coq. iracunda* and *Ae. notoscriptus,* the picture is similar to what we have found last year in January, although still slightly lower in general. Unfortunately, no *Ae. antipodeus* were found. Compared to last month we have less adult *Ae. notoscriptus* but more adult *Cx quinquefasciatus.*

Species	Adults		Larvae	
New Zealand Mozzies	**Jan 16**	**Jan 15**	**Jan 16**	**Jan 15**
Aedes antipodeus (winter mosquito)	Nil	50	Nil	Nil
Ae. australis (saltwater mosquito)	4	Nil	Nil	24
Ae. notoscriptus (striped mosquito)	70	349	1844	2452
Coquilletidea iracunda	4	184	Nil	Nil
Coq. tennuipalpis	Nil	4	Nil	Nil
Culex astilae	Nil	Nil	10	Nil
Cx pervigilans (vigilant mosquito)	26	71	4357	4778
Cx. quinquefasciatus (southern house	389	379	1470	2105
Opifex fuscus (rockpool mosquito)	1	Nil	94	39
Total	**494**	**1037**	**7803**	**9398**

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BIOSECURITY SPECIALISTS

INCURSIONS/INTERCEPTIONS

In January we have had 6 interceptions:

6.1.2016 One live female *Cx. quinquefasciatus* was found at MG Marketing, Auckland in a container from Ecuador with cartons of bananas.

11.1.2016 One live blood-fed female *Cx. quinquefasciatus* was found at AIAL in the MPI Lab Room associated with a tapa mat from Fiji.

19.1.2016 One live mosquito was found at AIAL arrival hall above the MPI bench early in the morning and has been identified as male *Cx. quinquefasciatus.*

20.1.2016 One live blood-fed female *Cx. quinquefasciatus* was found at Airport Oaks AKL (Transitional Facility) in a car imported from Brisbane with open windows - very likely to be a local one.

29.1.2016 One live female *Cx. quinquefasciatus* was found in an empty container at POA.

29.1.2016 One live male Cx. pervigilans was found at Fonterra Waharoa in a container with oats from Australia.

FACTS ABOUT ZIKA

AGENT

Zika virus (ZIKV) is a mosquito-borne member of the flavivirus and it is related to dengue, yellow fever, West Nile and Japanese encephalitis.

The virus was first isolated in 1947 from a sentinel Rhesus monkey (presumably the reservoir host) stationed on a tree platform in the Zika forest, Uganda.

VECTOR

Zika virus is transmitted to humans mainly by certain species of *Aedes* mosquitoes: *Aedes aegypti, Aedes africanus, Aedes apicoargenteus, Aedes furcifer, Aedes luteocephalus* and *Aedes vitattus.*

The mosquitoes that are able to spread Zika virus are not normally found in New Zealand.

HUMAN TO HUMAN TRANSMISSION

In 2009, it was proved that Zika virus can be sexually transmitted between humans when Professor Brian Foy (Colorado State University at the Arthropod Borne and Infectious Disease Laboratory), visited Senegal to study mosquitoes and was bitten on a number of occasions during his research. He later passed the virus to his wife.

SYMPTOMS

Zika virus infection is symptomatic in only about one out of every five cases.

The main clinical symptoms in patients are fever, conjunctivitis, transient arthritis/arthralgia (mainly in the smaller joints of the hands and feet) and maculopapular rash (that often starts on the face and then spreads throughout the body). In general the disease symptoms are mild and short-lasting (2-7 days).

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Studies show that the extrinsic incubation period in mosquitoes is about 10 days. The incubation period in human is typically 3–12 days. There is no specific therapy for Zika virus infection and acute symptoms typically resolve within 4-7 days.

The pathogenesis of the virus is hypothesized to first infect dendritic cells near the site of inoculation, and then spread to lymph nodes and the bloodstream. In terms of replication, flaviviruses generally replicate in the cytoplasm, but Zika virus antigens have been found in infected cell nuclei.

It is believed, but not yet proven, that Zika causes brain damage and microcephaly in babies born with the virus after their mothers have been infected during the pregnancy.

DIAGNOSIS AND TREATMENT

Zika virus can be identified by RT-PCR in acutely ill patients and from day 5 post onset of fever by serology (detection of specific IgM antibodies). Serological cross-reactions with closely related flaviviruses are possible.

Symptomatic only (non-steroid anti-inflammatories, non-salicylic analgesics); no vaccine or preventive drug is available.

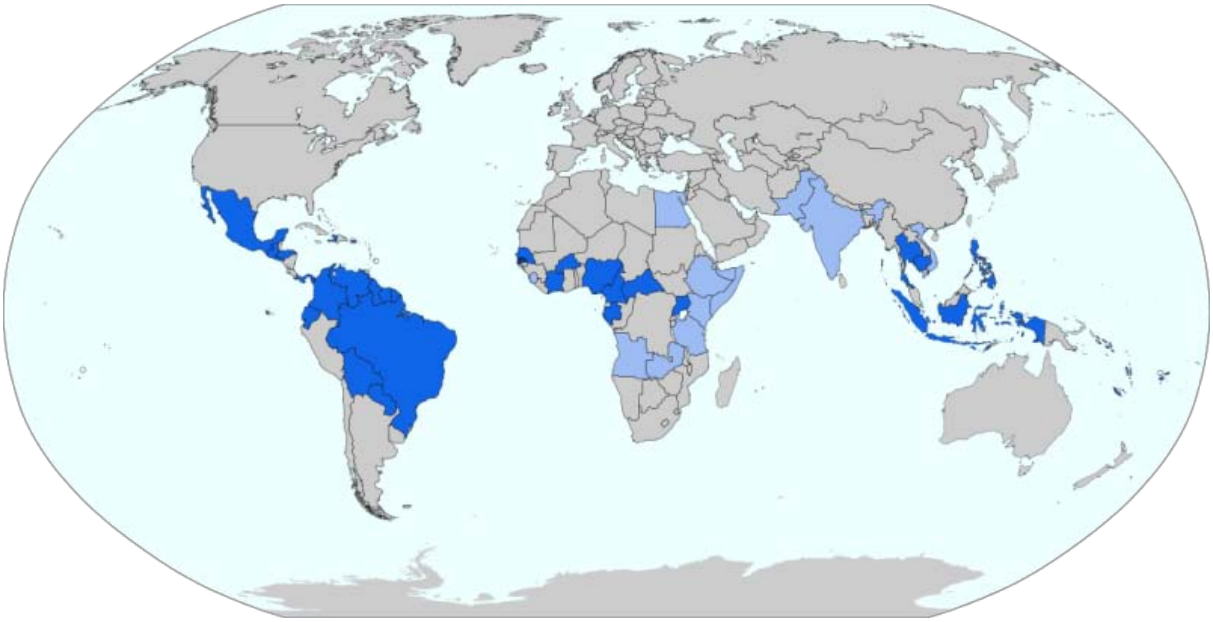
OUTBREAKS OF ZIKA VIRUS

Outbreaks of Zika virus have previously been reported in tropical Africa, in some areas in Southeast Asia and more recently in the Pacific Islands and currently in Americas, especially Brazil.

- Serologic studies have shown that Zika infections are occurring from Africa to Southeast Asia; in 1978 a small outbreak of acute fever in Indonesia due to Zika virus infection was described.
- An outbreak has been reported on Yap Island, Federated States of Micronesia (FSM) from April to July 2007. This was the first outbreak of Zika virus identified outside of Africa and Asia. A total of 108 cases were confirmed by PCR or serology and 72 additional cases were suspected. The mosquito *Aedes hensilli* was probably the main vector of transmission. While the way of introduction of the virus on Yap Island remains uncertain, it is likely to have happened through introduction of infected mosquitoes or a viraemic human.
- French Polynesia: Between early October 2013 and 21 March 2014, 8,700 suspected cases of Zika.
- New Caledonia: Between 25 November 2013 and 25 March 2014 there have been 352 confirmed cases of Zika virus. Of these, 244 are locally transmitted cases while the other 32 cases were imported from French Polynesia.
- Cook Islands: Between 13 February and 24 March 2014 there have been 648 dengue-like illness cases reported with 49 of these laboratory confirmed with Zika virus.
- Easter Island: As of 07 March 2014 there have been 40 suspected cases and 1 confirmed case of Zika virus reported.

- Cook Islands, Solomon Islands, Vanuatu, Fiji and Samoa in 2015.
- Brazil: In May 2015, the public health authorities of Brazil confirmed autochthonous transmission of Zika virus in the northeastern part of the country. As of 8 October, autochthonous cases of Zika virus had been detected in 14 states: Alagoas, Bahia, Ceará, Maranhão, Mato Grosso, Pará, Paraná, Paraíba, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Norte, Roraima, and São Paulo.
- Colombia: As of 16 October 2015, samples were laboratory-confirmed as Zika virus infections. These are the first cases of Zika virus infection detected in the country.

Wikimedia



ZIKA STORIES OF THE MONTH

Debunking the Zika Conspiracy Theories
by Mark Hay 4 February 2016

It showed up in Chile in 2014, only to disappear soon after. In May 2015, the disease cropped up in Brazil's northeast—and has since spread to at least 1.5 million Brazilians and many others in over two dozen other nations, with some speculating that it could eventually overtake the southeastern United States, as well as most of Latin America.

Microcephaly

More worrying than the speed and scale of the disease's spread over the past months is the fact that since October it's been correlated with a rise in microcephaly in Brazil. A condition in which babies are born with small heads (which in 15 percent of cases is just that, but in most leads to mental and physical impairments or even death), microcephaly is not a known effect of Zika. But doctors in Pernambuco, Brazil, noted that whereas they usually had about nine microcephaly cases pop up each year, since the rise of Zika there have been 646, leading to a red flag that infectious bites to pregnant women might be having an effect on fetuses. Since then about 4,000 cases of microcephaly have been reported (although only 404 have been confirmed by experts and 709 have been discounted) in Brazil—a vast spike over the national average of 150 and suspiciously clustered near the country's main Zika outbreak zone. This link is only speculative for now but it has led to travel advisories for pregnant women. News of a case in Texas spread via sexual intercourse (something experts suspected was possible but hadn't confirmed), plus the fact that the disease could possibly spread through other mosquito species with a wider range, has led to widespread fears of a global epidemic of microcephaly births.

www.br.de/themen/wissen/zika-virus [modified]

GMO

Perhaps the most commonly cited conspiracy theory behind the rise of Zika has to do with experiments with genetically modified mosquitoes in Brazil. Basically these mosquitoes are encoded with a gene that causes the vast majority of their offspring to die before reaching maturity. Conspiracy theorists argue that somehow this gene failed, possibly because scientists didn't consider that an antibiotic additive called tetracycline present in livestock dung might block it, or possibly because a Bill Gates-backed cabal actually wanted it to go that way. These theorists argue that Zika correlates to the location and timing of the modified mosquitoes' release, so their wild proliferation must somehow be responsible for the introduction, or at the very least the spread, of the virus.

Almost nothing in this theory makes sense. First and foremost, not only does the rise of Zika alongside the rise of modified mosquitoes fall short of causal proof, but the correlation is also false. The theory's progenitors wrongly identified the location of the modified mosquitoes' release into the wild in Brazil—a project that has actually been going on since 2009 and not just in 2015, as some sources seem to believe. The closest site with modified mosquitoes, which cannot fly more than a few hundred meters away from their home in their lifetimes, appears to be 400 miles away from Recife, the epicenter of the outbreak. And Piracicaba, where a new batch was released in 2015 (fitting the theory's timeline), lies 1,300 miles away from the epicenter.

Beyond that, male mosquitoes (which the modified organisms were) do not bite;

females do. The altered insects would need to breed offspring for any supposedly malevolent modified females to exist, and genetic modification should make offspring die off as larvae. The mechanism that most theories claim is allowing these offspring to survive—the presence of tetracycline in the local environment—actually was on the radar of scientists, who concluded that the chemical's presence in the regions where mosquitoes were released was not enough to block the death gene. Plus, Brazil phased out the additive in 2009. And tests of the modified mosquitoes' release have shown the experiment has crashed total mosquito populations in test areas by over 90 percent, which should (as was intended) reduce the transmission of Zika and other diseases, not raise it.

Even if there really was a correlation between Zika and modified mosquitoes who became viable breeders, it's not clear exactly how these particular insects would be connected with the disease—how they would have gotten it or made it more dangerous than in the past. One theory posits that some strange mutation occurred in a mosquito with Zika (from an unknown source). But scientists have sequenced the genome of the Zika virus strand behind the outbreak and found no evidence of this. The only other way modified mosquitoes could be implicated is if, as some believe based on the presence of Zika in biological supply catalogues, some sinister force purposefully infected and then released these mosquitoes, perhaps after having modified them, to implement population control. But even believers in this theory admit it would have taken a fraud of extraordinary scope—and it just so happens that a new mathematical paper out this year demonstrates the unlikelihood of pulling off such a conspiracy or subsequently keeping a lid on it. That and the motives for such an attack are pure paranoid conjecture.

TDAP Vaccine

The alternative theory posits that Zika either doesn't exist or is harmless and being used as a cover-up for microcephaly caused by other factors—pesticide poisoning, Tdap vaccination of pregnant women (again possibly for population control), or malnutrition through corruption and negligence. This argument hinges in large part on the idea that viruses don't suddenly become more dangerous than they used to be, so Zika must be a false flag covering up malfeasance.

It's worth noting that this theory contradicts the idea that modified mosquitoes are spreading the dangers of Zika—because in this theory Zika isn't the culprit. That might seem to go without saying, because these are two separate conspiracy theories. But for some people, like the absurd Jon Rappoport, they're not. Rappoport helpfully points out that epidemics can have multiple causes, listing both mosquitoes and toxins as possible factors in this one. But while he's right about that, they generally can't have two mutually exclusive causes. The only way you could tie the modified mosquitoes theory to the toxin theory is if spreading Zika were an excuse for disseminating toxic repellents to pregnant women for population control. But that level of complexity has no discernible purpose save to justify a flimsy theory made in equal parts of straw and delusion.

To be fair to the toxin theorists, it's true that microcephaly could be caused by many other factors, like exposure during pregnancy to cytomegalovirus, diabetes, high alcohol consumption, mercury, radiation, rubella, severe malnutrition, or toxoplasmosis. These causes trigger a fair amount of microcephaly in the United States, for instance (25,000 cases a year). But though the link to Zika is tentative for now, a campaign of misdirection by shadowy global elites is certainly not the only alternative possibility, and again, also not a likely one.

Even if not proven, the case for a tie between microcephaly and Zika is actually a lot stronger than conspiracy theorists make it out to be. Although it was not deeply studied at the time, during the French Polynesian Zika outbreak experts noted spikes in both microcephaly and another rare neurological disorder, Guillain-Barré syndrome, which causes paralysis. And initial research on the current outbreak has found Zika in the brains of two babies who died of microcephaly; evidence of Zika infections in two pregnant women who gave birth to microcephalitic children; and a case of a microcephalitic baby born in Hawaii after his mother likely contracted Zika in Brazil in May 2015. Beyond this, when scientists sequenced the Zika genome, they did notice mutations (because, ahem, viruses are always changing, all the damn time). Given that the family of diseases in which Zika resides can have neurological effects, it's not out of the question that this mutation could have increased certain risk factors in the disease, explaining the link. That's still circumstantial and speculative argumentation. But it holds more water than GMO mosquitoes or a false-flag cover-up.

None of this means that the prevailing narrative of Zika's tie to microcephaly is definitive. Not even scientists make that claim. Right now we're still trying to figure out what's up with this disease and the microcephaly outbreak. The microcephaly could be tied to something we haven't detected, or to Zika working in conjunction with another factor. Perhaps we are panicking a bit too much about Zika as well; it's probably sufficient (in the United States, at least) to avoid unnecessary travel to affected areas, use DEET repellents when there, and use protection during sex for a couple of weeks after returning to avoid any chance of transmission, even if the microcephaly tie turns out to be overstated or bogus. But conspiracy theories based on wrongheaded information, pale understandings of science, and fabricated motives by murky actors aren't going to help us parse the true state of Zika, or learn how best we should be responding to the outbreak.

On the contrary, these theories might hurt people—even kill people. Twisting facts to present a paranoid fable of population control to people who are in a place of confusion and vulnerability increases the risk that individuals or regions might boycott Zika vaccines or treatments, in which a number of nations and companies are investing. If Zika is truly a threat, this is a deadly gambit. Meanwhile, spreading disinformation about modified mosquitoes threatens to do even more damage, as projects like the one in Brazil are our best bid at stopping an invasive species that we brought to the New World during the age of exploration, almost eliminated in the mid-20th century, and have now allowed to creep back into existence. The Aedes aegypti's entrenchment in the tropics of the Americas has been a force of death and pain for ages, and threatens to become even more of a source of woe as it extends its range in a warming environment. Convincing people that well-controlled and tested modified mosquitoes are an existential threat is a great way to lose local support for trials, halting progress on mosquito and mosquito-borne-disease control, and incidentally aiding not just Zika but a host of other diseases as well.

It's fine to doubt a popular narrative. It's even commendable to cast a wary eye toward aggressive actions on the part of major corporations or governments with documented histories of abuse. But it is never acceptable to indulge in conspiratorial fantasy that twists facts in favour of a fearful, crackpot worldview when the lives of thousands are on the line. And that's what these theories are: a mélange of cherry-picked data, wilful ignorance, and distortion thrown through a rock tumbler of

dogmatic hate and conviction, then spewed into an arena of pain and confusion. They are not just laughable—they are also dangerous and they must be stomped out post haste in the name of health and reason.

WHO declares Zika a global health emergency

- Reuters / RNZ

The World Health Organisation (WHO) has declared the Zika outbreak a global health emergency at a special meeting in Geneva, as the disease linked to thousands of birth defects in Brazil spreads rapidly.

The Ministry of Health's chief medical officer, Don Mackie, told Morning Report the global emergency over the Zika virus will result in a significant step up in the fight against the virus.

He said that could have implications for New Zealanders.

"That then gives the WHO the ability to start talking about perhaps travel restrictions or trade restrictions, which is very unlikely in this case, but also how they can start mobilising resources globally to address the problem. So it's a threshold point, but it's also bringing together as much information as we have at the moment."

Doctors scan the brain of a newborn baby to detect a possible microcephalia in Brazil.
Photo: AFP

The Ministry said all cases of Zika reported in New Zealand have involved people who had recently been in countries where there had been an outbreak.

WHO Director-General Margaret Chan told reporters at Geneva that an international co-ordinated response was needed, although restrictions on travel or trade were not necessary. The emergency designation was recommended by a committee of independent experts to the United Nations agency following criticism of a hesitant response so far. The move should help fast-track international action and research priorities.

The WHO said last week the Zika virus was "spreading explosively" and could infect as many as 4 million people in the Americas.

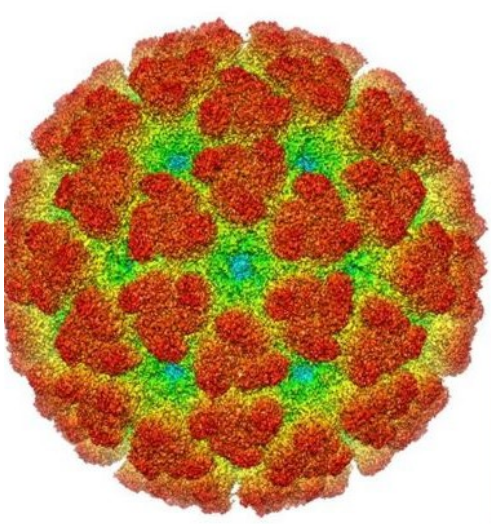
The agency was criticised for reacting too slowly to the Ebola epidemic in West Africa which killed more than 10,000 people, and has promised to do better in future global

health crises.

A health worker fumigates against the Aedes Aegypti mosquito in Cali, Colombia.
Photo: AFP

The WHO's International Health Regulations emergency committee brings together experts in epidemiology, public health and infectious diseases from the Americas, Europe, Asia and Africa.
Brazil has reported nearly 4000 suspected cases of microcephaly, in which infants are born with smaller-than-usual brains. The country's health ministry has linked the condition to Zika, although the connection was not yet definitive.
Brazilian Health Minister Marcelo Castro told Reuters that the epidemic was worse than believed because in 80 percent of the cases the infected people had no symptoms.
As the virus spreads from Brazil, other countries in the Americas are also likely to see cases of babies with Zika-linked birth defects, experts believe.
The Pan American Health Organization says that Zika has now spread in 24 nations and territories in the Americas.

Is Zika really the cause microcephaly? ZIKA OR IMPROPER VACCINE USE?
At this point, we are all hearing through various media channels about the “Zika crisis” in Brazil. Babies are being born with small heads (microcephaly) and will end up living a diminished lifespan if they survive at all. It is awful, and of course, the world wants a fast answer.
That is where the “Zika virus” stepped in. This virus is now being blamed for the high occurrence of Guillain-Barré syndrome and microcephaly now present in northeast Brazil. However, is this the true culprit?
The Zika virus is mosquito-borne illness, just like Dengue Fever or the West Nile Virus. Generally, the symptoms of this virus include fever, rash, joint pain, or conjunctivitis. Hospitalisation associated with Zika is uncommon, and death is extremely rare.



Until recently, Zika was not associated with either microcephaly or Guillain-Barré syndrome, and it is not a new virus. It was discovered in 1947 and is currently present in areas of Asia and Africa.

Note that Zika is not a new virus — it has been around for decades. No explanation has been given as to why suddenly it could be causing all these cases of microcephaly. No one is seriously asking the question, "What has changed?"

Not even the CDC can confirm that Zika is the cause of these terrible birth defects.

"We do not know if Zika virus infection causes GBS [Guillain-Barré syndrome]. It is difficult to determine if any particular pathogen "caused" GBS. The Brazil Ministry of Health is reporting an increased number of people affected with GBS. The CDC is working to determine if Zika and GBS are related."

and…

"There have been reports of a serious birth defect of the brain called microcephaly (a condition in which a baby's head is smaller than expected when compared to babies of the same sex and age) and other poor pregnancy outcomes in babies of mothers who were infected with Zika virus while pregnant. Knowledge of the link between Zika and these outcomes is evolving, but until more is known, the CDC recommends special precautions for the following groups…"

It may be that Zika is not the confirmed cause of the microcephaly and GBS cases currently popping up. It is still a theory and groups are still working towards discovering if there is a real connection between the two.

Brazil had been experiencing high occurrences of whooping cough, or pertussis, in 2013. Because of this problem, it was mandated in October 2014 that all pregnant women would receive the TDAP (diphtheria, tetanus, and pertussis) vaccine.

This is a quote from the creator of the specific vaccine that was used:

"A developmental toxicity study has been performed in female rats at a dose approximately 40 times the human dose (on a mL/kg basis) and revealed no evidence of harm to the fetus due to BOOSTRIX [a TDAP vaccine]. Animal fertility studies have not been conducted with BOOSTRIX. There are no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, BOOSTRIX should be given to a pregnant woman only if clearly needed."

Some might argue that the high cases of whooping cough may mean the vaccine was "clearly needed," but no one is looking into the fact that this vaccine policy came into effect roughly 7 months before cases of Guillain-Barré syndrome and microcephaly started to arise. That is enough time for any new mother to have received the vaccine at some point in their pregnancy.

When we started to do our own research about the Zika virus, we thought it was new, and we thought it was contained to Brazil. The fact that this virus is found in other places around the world and is not tied to either Guillain-Barré syndrome or microcephaly in those areas has some meaning. However, this does not mean that the TDAP is the apparent culprit.

It could be that the Zika virus in Brazil evolved in a way that does cause harm to an unborn child. Maybe it is a combination of the virus and the vaccine or maybe it is an unknown factor. We do not know, and scientists do not know either.

According to Scientific American:

"Zika virus has been grabbing headlines because of its links to an alarming birth defect called microcephaly. The data to provide evidence linking the relatively mild mosquito-borne disease and babies born with small heads and potential brain

damage, however, are not yet conclusive. World Health Organization and U.S. government officials discussed this data gap today in a series of public comments and press briefings."
They do not know the true cause yet and other groups are working towards yet another vaccine that they hope will "fix the problem."
On January 28th, Street Insider published the following quote:
"Inovio Pharma CEO J. Joseph Kim said in a phone interview with Bloomberg that it plans to start testing its DNA-based Zika vaccine in non-human primates. Currently the vaccine is being tested on lab mice, but it is able to move faster than traditional vaccine development timelines. Testing in humans is targeted for this year."

Health experts slam anti-vaxxers' zika virus conspiracy theory as 'absurd'
FEBRUARY 5, 20165:31AM
Rebecca Sullivannews.com.au
HEALTH experts have slammed claims made by Australian anti-vaccination advocates that a popular vaccine administered to pregnant women causes the Zika virus, arguing the "absurd" claims have "no scientific basis".
Members of the "Anti Vaccination Australia" Facebook group, which has almost 3,000 members, say it's no coincidence the Tdap vaccine used to prevent diphtheria, tetanus and pertussis (whooping cough) in pregnant women was introduced in Brazil just months before the Zika virus outbreak.

Supermodel Miranda Kerr's mother Therese, who made headlines last year when she revealed her typical 'Day On A Plate' and is a known anti-vaxxer, supports these claims.
On her Facebook page, Kerr shared a story from TruthKing.com titled "TDAP Vaccine in Pregnant Women ACTUAL Cause of Zika Birth Defects? (You Need To Read This)", which used the image below to sell the story.
King story Therese Kerr shared on her Facebook page.

But these two girls, Claire and Lola Hartley from Kansas, don't have the Zika virus.
They have microcephaly, a serious birth defect that causes babies to have extremely small heads and brains, which has been linked to the Zika virus.
Gwen Hartley, mother to Claire, 14, and Lola, 9, says the recent public interest in her daughters' condition has given her mixed emotions.
"Part of me is grateful for the awareness of something we've been dealing with for 15 years, part of me feels sad for the families because I know what they've been through, twice. It's been really emotional," Hartley, 41, told The Washington Post.
"This is the baby I'm supposed to be a mum to," Hartley said of her youngest daughter. "I would be missing out on a gift that had been given to me."
The Hartleys have no family history of microcephaly and doctors do not know how the girls developed the condition.
Anti-vaxxers are incorrectly using this image of Claire and Lola to try and imply cause and effect between the Tdap vaccine and the Zika virus.
There is no evidence to support a link between the resurgence of the Zika virus in Brazil and the increase in women having the vaccine, said the president of the Australasian Society of Infectious Diseases, Professor Cheryl Jones.

"The bottom line is that [anti vaxxers'] proposed concerns have no scientific basis," she told news.com.au.

So what is the Tdap vaccine and why has it been looped into this debate?

Following several severe outbreaks of whooping cough worldwide, both the US and the UK recently advised all pregnant women to have this vaccine to protect their unborn babies.

Newborn babies cannot be immediately vaccinated — you have to wait a few months — so doctors wanted to ensure babies would be protected during their first stages of life.

"After making the vaccine available they had around 70-80 per cent of pregnant women signing up and they found there was more than a 90 per cent reduction in babies getting whooping cough," the director of the National Centre for Immunisation Research and Surveillance, Professor Peter McIntyre, told news.com.au.

After seeing success with the vaccine in the US and the UK, Brazil accepted a recommendation by the US to introduce the vaccine.

"By coincidence, that move to have more mothers immunised happened just before the Zika virus started turning up. It's pure coincidence and they're [anti vaxxers] are jumping on that link," said Professor McIntyre.

"That vaccine has been administered to millions of women. There have been a couple of big studies in the US comparing the health of thousands of pregnant women who had the vaccine compared to women who didn't, and they found there was absolutely no difference in things like stillborns, birth defects, C-sections, premature birth, bleeding ... all the things that can go wrong in a pregnancy."

Professor McIntyre says the suggestion that Zika virus is caused by the whooping cough vaccine is "absurd".

"It shows absolutely no knowledge of the science that underlies all this."

First Zika virus hospitalisation case in New Zealand this year

Stuff

There have been 67 cases of the Zika virus in New Zealand since 2002, Ministry of Health figures show.

One man is in hospital after nine New Zealanders were diagnosed with the virus in 2016 after travelling traveling overseas.

The most widespread outbreak of Zika virus in history began in April 2015 in Brazil. According to Ministry figures, there were nine cases of the virus in New Zealand in 2015. This figure is provisional.

The 47-year-old man was admitted to Waikato Hospital with symptoms indicative of Guillain-Barre, a condition linked to the virus, which can cause paralysis. Most patients make a full recovery.

The man travelled to Tonga and arrived back in New Zealand on January 15.

A Waikato spokesperson said the man was in a stable condition in a ward on Friday afternoon.

Four of the infected had been in Tonga, four in Samoa and it is not known where the other was infected.

Four of them were female. In two of those cases, the potential for pregnancy has been ruled out.

Further tests are underway for the two remaining women.

The Ministry of Health has extended its Pacific travel advice around the Zika virus to

include Tonga as well as Samoa as an area of active transmission.
In the past four months, hundreds of Brazilian babies have been born with microcephaly - or abnormally small heads - believed to be linked to Zika.
At least four Zika deaths had been confirmed overseas, and dozens of others were suspected of being a result of the virus.
The eight New Zealanders who have been confirmed as having the virus this year arrived in New Zealand from 28 December 2015 to 21January 2016.
The first recorded case in New Zealand was in 2002 and numbers have fluctuated since then.
THE NUMBERS
- 2002 – 1
- 2003/2013 – none
- 2014 – 57
- 2015 – 9 (provisional)
THIS YEAR'S CASES
- A 50-year-old woman from Auckland arrived with the virus on 21 January after visiting Tonga. On the same day, an Auckland man, 63, arrived with the virus from Samoa.
- A Wellington woman, 41, arrived on 19 January from Samoa with the virus
- A Waikato woman, 29, caught the virus in Samoa, and came back to New Zealand with it on 17 January.
- A 12-year-old Auckland girl arrived from Tonga with the virus on 15 January. On the same day, a 47-year-old Waikato man also had it on his return from Tonga
- An Otago man, 49, arrived with it on 14 January. The country he was visiting was not recorded.
- Another Auckland man, 23, arrived from Tonga on 12 January carrying the virus.
- A Wellington man, 57, arrived on 28 December with the virus from Samoa.

Cruise lines waive cancellation penalties as Zika virus spreads

MIAMI (CMC) – Cruise lines have begun waiving cancellation penalties for some customers booked on voyages to the Caribbean and other regions affected by the Zika virus.

Industry giant Carnival Cruise Lines said it will allow pregnant women on sailings that include stops in the US Virgin Islands, Puerto Rico and other destinations impacted by the virus to switch to an itinerary to an unaffected area.
Alternately, passengers can postpone their trip or cancel outright and receive a future cruise credit.
Norwegian Cruise Line also is allowing pregnant women sailing to affected areas to postpone trips to a later date or switch itineraries, and Royal Caribbean is also giving pregnant women alternative options.

The cruise lines said the options also are being offered to people traveling with the pregnant passenger.
US health officials said that while posing little risk to most people, the Zika virus is particularly dangerous for pregnant women.
They have cited a link to microcephaly, a birth defect in which infants are born with small skulls and incomplete brain development.
Last week, the US Centres for Disease Control and Prevention expanded a Zika-related travel alert to include the US Virgin Islands and the Dominican Republic.
Earlier, the CDC had issued travel alert for Barbados, Guadeloupe, Haiti, Martinique, Puerto Rico and St Martin. The alert recommends pregnant women to postpone travel to those destinations.
Also included in the CDC alert are Bolivia; Brazil; Cape Verde; Colombia; Ecuador; El Salvador; French Guiana; Guatemala; Guyana; Honduras; Mexico; Panama; Paraguay; Samoa; Suriname and Venezuela.
According to USA Today cruise line stocks have been hit hard over the past two days as fear over the impact of the virus on bookings spreads.
But the report also said that cruise line officials have had few cancellations so far.

Texas county reports sexual transmission of Zika virus
Sandee LaMotte, CNN
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(CNN) — Dallas County Health and Human Services in Texas said it has received confirmation from the Centres for Disease Control and Prevention that a case of the mosquito-borne Zika virus was transmitted through sexual contact this year.
The patient, the county says, “was infected with the virus after having sexual contact with an ill individual who returned from a country where Zika virus is present.”
Previously, there have been only two documented cases linking Zika to sex. During the 2013 Zika outbreak in French Polynesia, semen and urine samples from a 44-year-old Tahitian man tested positive for Zika even when blood samples did not. Five years before that, in 2008, a Colorado microbiologist named Brian Foy contracted Zika after travel to Senegal; his wife came down with the disease a few days later even though she had not left northern Colorado and was not exposed to any mosquitoes carrying the virus.