

Podcast Transcript

Title: Zika Virus: A Podcast for Professionals Providing Family Planning Services
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*Welcome to this podcast sponsored by the National Clinical Training Center for Family Planning. The National Clinical Training Center for Family Planning is one of the training centers funded through the Office of Population Affairs to provide training to enhance the knowledge of family planning staff. During this presentation, **Zika: A Sobering Challenge to the Family Planning Community**, we will be speaking with Dr. Mark Hathaway.*

Dr. Hathaway is a board certified OB/GYN and served on the teaching faculty at Medstar Washington Hospital Center from 1997-2013 where he developed and led the Section of Community Outreach, the Family Planning Section, the Ryan Residency Program, and the Family Planning Fellowships. Dr. Hathaway is currently Senior Technical Advisor for Reproductive Health at Jhpeigo, an NGO which focuses on international maternal-child health. He also assists with Family Planning Programs at Unity Health Care in Washington, D.C. and has served on several national-level work groups and committees including the Institute of Medicine Standing Committee on Family Planning and the Title X Expert Panel. He has served on the Board of Directors of the National Family Planning & Reproductive Health Association and is currently on the Board of the Association of Reproductive Health Professionals.

The Zika virus is prompting concern worldwide and being treated as a public health emergency. For those working in public health the virus is especially troubling as we face unknowns around the spread of the virus, the capacity for responding to the health outcomes, efforts at education and prevention, and funding to fight the disease and treat the affected. The implications for public health in particular and family planning sites is serious. The unknowns of the Zika virus unfortunately outnumber what we do know.

Welcome Dr. Hathaway. Can you begin by sharing some history of what the Zika virus is and how it is spread?

Yes, and thank you very much for having me. As you mentioned this is a sobering thing for us both as a public health notion in general and family planning sites specifically. I think I could probably talk about the epidemiology for several hours but I'll try to give a brief overview. So in 1947 the Zika virus was detected as part of a surveillance for yellow fever. Interestingly it was in the Zika forest in Uganda, hence its name. And then in 1948 the virus was recovered from the *Aedes africanus* mosquito. In 1952 there was the first human case detected; that was in Uganda

and Tanzania, both still in Africa, and then there was sporadic cases between those years, the early 1950s-2007 and there was, the first fairly large outbreak when the transmission went from Africa to Asia and there was a detection in Micronesia on the island of Yap. And then as most recent information is coming available in the recent news, in 2013-2014 there was a Guillain-Barre syndrome neurovascular, neuro logic disease linked to the Zika virus. This is an outbreak in French Polynesia. And then, as we've seen, there's been lots of cases detected and noted and lots more information coming from South America in particular Brazil and some of the south and Central American countries. The disease is primarily spread through the bite of the Aedes Egypti or the Aedes mosquito which in infected with the virus and, as I'll point out a little bit further most people infected with the virus won't even know they have the disease because they won't have any of these symptoms. But for those who do have the symptoms they are particularly mild and last for several days to up to a week

Thank you Dr. Hathaway, and can you talk a bit more about this particular mosquito? What are the traits of the mosquito?

Well its interesting this mosquito, some folks have referred to this as kind of a domesticated mosquito, kind of an interesting term, but the Aedes Egypti mosquito, is as all mosquitos, only the female bites for blood and its referred to a domesticated mosquito because it tends to live mainly in doors and it feeds at dusk and dawn, can feed when the weather is cloudy but it can bite all the time. It tends to like urban areas and some people refer to it as kind of an urban and lazy and nervous mosquito. It tends to congregate next to water, waste water areas. The lifespan is 2-4 weeks but the eggs can survive for over a year and, there may be other Aedes species that are potential vectors but for now we think it is the Aedes Egypti mosquito.

We know that Zika has tremendous negative outcomes, especially for pregnant women. What are the current facts around pregnancy and Zika?

Well I think we probably know less, or, there's many many more issues that we don't know than what we do actually but let's talk about some of the things that we do know, first. So we know that pregnant women can be infected with the Zika virus and that's the primary concern these days. It's due to a bite of an infected mosquito, and it can be spread, we also are now learning, from males, or men, to their sex partners. Pregnant women can pass the virus to her fetus, and that's where the devastating effects are now being seen and sorted out. We can talk a little bit more about that but as I mentioned, there's a lot that we don't know. We don't know if a pregnant women who is exposed, we don't know exactly how likely she is to get the Zika virus; if a pregnant woman is infected, we don't know how the virus will affect her or her pregnancy; we don't know how likely it is that the virus will be passed to her fetus; if the fetus is infected, we don't know if that fetus will develop birth defects in all cases or some cases, when in pregnancy the infection might cause the most harm or cause harm. We don't know whether the infant or the baby will have birth defects. If there's sexual transmission of the virus it poses a different

sort of risk and we don't know quite what that transmission poses in terms of mosquito born transmission versus just sexual transmission or differently sexual transmission. Lots that we don't know. Initially we thought that the first trimester exposure was what we often refer to as the danger zone of a pregnancy which is in many cases that's when most ill effects occur, the time of neuro development; but we now are aware that the concern is probably throughout all of the pregnancy and that has to do a lot with the fact that the virus attacks the neuro stem cells and so there's concerns throughout the pregnancy because those neuro stem cells develop throughout the pregnancy and this can include any number of neurologic issues; eye problems, neurologic disorders, premature births, but this main effect as I said has to do with the damage to this neuro tissue.

Thank you. Dr. Hathaway, can you talk a bit more about the transmission of the virus after someone has potentially contracted Zika? Specifically, what are the symptoms and how can it spread from person to person? (Women, men infected with and without symptoms)

Sure, and I think it's probably best stated in a simple way, basically the transmission is in any way you might think of it, so the mother to the child, the mother to the fetus, sexual contact, males with their partners, blood transfusion. As I said, Zika virus can be spread from a man infected with Zika to his partners. There's been some known cases where men who had the symptoms from these recent cases we know the virus can spread when men have symptoms, before the symptoms start, and after the symptoms end even. And we are now learning that the virus can stay in the semen probably longer than it stays in blood. To date there have been no reports of infants getting the virus through breastfeeding, however, and because of all the benefits of breastfeeding mothers are encouraged to breast feed even in areas where Zika virus is found, and that's from fairly recent information in May of 2016 from the CDC.

Thanks. What are some of the clinical symptoms associated with Zika?

(Well I think) I'm glad you asked that question because probably the most important point is that most of those that get sick may not even notice it. And the typical symptoms are kind of a flu like illness; fever, skin rash, muscle, joint pain, conjunctivitis. Severe sequelae are very very less or very very uncommon and as I said most, roughly around 80 percent of most infected males or females are asymptomatic and that's probably the tricky part of this disease, that you may not even know that you are effected.

So, how is Zika diagnosed and how is it treated?

Ya, its diagnosed based on a person's recent travel history, their symptoms, results of blood tests. Blood test is the only way to confirm the Zika infection, and, there's set labs that do the testing,

primarily and I think only exclusively now, through state health departments so if you have a woman where you suspect she may have Zika virus you need to turn to the state health department looking for the lab tests

One of the devastating effects of Zika is of course, how it effects the developing fetus. Can you talk about the association between Zika and birth defects, including Microcephaly?

Yha, I think we were thinking of it early on as an association but now we know that the virus is actually causal, it does cause Microcephaly, and that was due to, from, recent studies maybe two months ago that this declaration from CDC and the WHO. But the effects are as you mentioned, devastating, it has to do with this neuro-stem cell destruction which leads to a head that's smaller than expected and that can lead to abnormal brain development, including seizures, development and intellectual disabilities, problems with movement, balance, feeding problems, hearing loss, vision problems. Just a terrible, devastating disease.

How aware are people of the potentially devastating effects of Zika such as microcephaly and, as you mentioned earlier, Guillian-Barre. What are your perceptions of people's awareness of the virus and the potential outcome?

I travel quite a bit these days with my job and I continually ask what are people aware of and what do we know, what do people know, what are they hearing, and in a poll that was done in March, and there's probably more recent polls, but, some of the data from that poll indicated that 20 percent of people felt that there was already a vaccine and we know there is no vaccine yet that's why prevention is key. Forty-some percent do not realize that Zika can be transmitted sexually. 70 percent of individuals affected with the virus are likely to show symptoms; that's incorrect, most women, most men, affected with the virus do NOT show any symptoms. A lot of women, I'm sorry, a lot of individuals are aware that the Zika virus is transmitted by the mosquitos so at least we've gotten that information out there. 87 percent or so. But, there's not a clear awareness of this linking between the Zika virus and Microcephaly, and that's really important information as well as other symptoms or other syndromes including as you mentioned Gullian-Barre. So I think the take home message I think is to be aware of the good public health information that's being broadcast and keep yourselves up to snuff, up to date on good public health messaging, not necessarily what's coming out the local news media or the media.

Thank you. Given the potential magnitude and impact of the devastating health problems Zika may cause, what are the recommended prevention areas to focus on?

Right. So, as we said, there's no vaccine. That means there's no cure, there's no vaccine yet, and so prevention is crucial and that means primarily trying to avoid or prevent mosquito bites for yourself as well as for others. That means keeping mosquitos out of your home, or hotel or wherever you're working or staying. Try to throw out any items that might hold water. That includes planters, toys, pools that are stagnant, tires, old trash containers, bird baths, and things of that nature. Check inside and outside of your home; those are kind of the bigger, overall vector

control items. And then there's the personal protection; repellents, use the EPA registered insect repellents. We now look at these are safe for pregnancy as well as individuals who are not pregnant. Deet, Pacardian, IR3535 and some of the others but as we've mentioned there's good resources out there of which repellents are safe, just watch for them. And if you are pregnant you should not travel to any areas where the Zika virus is prevalent. If you must travel, make sure you talk to your doctor or other health care provider before you travel. If you're trying to get pregnant, or thinking about pregnancy talk to your doctor as well as your partner because as we've mentioned the sexual transmission component of this virus is really important

Dr. Hathaway, will you summarize where you feel family planning has a role in the Zika crisis?

Yes, and for those of us who work in the family planning world this is kind of a mixed bag because we feel as though, I think, there's a lot of opportunities. This is a time to really make sure that your family planning strategies, your family planning programs are up to snuff and beef them up if they are lacking. There are some governments that are advising delay of pregnancy in that there aren't any global or US recommendations regarding that, but regardless of the local status of the Zika transmission or the Zika virus, we need to be able to promote capacity building, high quality family planning service delivery, and clear information, to provide and promote comprehensive up-to-date evidence-based counseling with all options including the same day provision of family planning methods; Good counseling, make sure that emergency contraception services are available including management of emergency contraceptive failures, promote safe sex, and I'm not a big fan of the word dual protection but in this case it is important in terms of preventing sexually transmitted virus but also pregnancy prevention. And make sure that we're discussing and aware of the Zika virus and travel recommendations that are coming out of CDC. I often think of different scenarios with a patient. There's the patients that are thinking about getting pregnant, and there's those that are pregnant, and I can think of many other scenarios but those are probably the top two, and then I think we are going to see more men asking questions about their risks and the Zika virus, but, if you think of the general typical patient population who would come into a family planning site or a clinic area where there's family planning offered, if a woman tests positive for the Zika virus, then she needs good options counseling. Positive pregnancy and positive for Zika good; options counseling and that includes the three options that we provide for everyone. That's early antenatal care options, refer for abortion care and provision naming referral, make sure that your referral mechanisms are strong and intact and, refer for adoption or social services if that's what a woman desires. If a woman test negative for pregnancy or negative for the Zika virus as well then this is the time to discuss family planning options and you know make sure that she's aware of the implications of potential exposure to Zika virus as well as make sure that her partner is aware that he can also transmit the virus. And, I can't say it enough, but good referral systems are essential. This is a time to make sure you have good referral systems in place. There's multiple impacts on family planning programs. You're probably going to see an increased demand, especially for some of the longer acting methods; Implants

and IUD's, you're probably going to see an increase for emergency contraception so if you detect or expect a strain on your family planning commodities provisions in what we already know in the background of unmet need in some sites, and this is the time to work on making sure that you get your sites up to snuff.

Can you talk a little bit about tuning up and ensuring the family planning basics?

Well I can talk a little bit about it and I can also talk a lot about it but I probably won't share how but you know in any family planning site you want to make sure that the staff clinicians as well as the ancillary staff are aware of the updated Medical Eligibility Criteria, the newest guidelines are about to be released I think actually this coming month, July, so making sure that clinicians are up to snuff and aware of those guidelines, making sure that quality family planning from the QFP guidance its coming also from the CDC and OPA. We in our clinic sites have talked a lot about trying to provide a question every so often, perhaps annually, you know a key question about reproductive life plan or One Key Question. And then there's patient- centered counseling, making sure your counseling strategies are intact that choice is part of your strategy, good counseling strategies. Emergency contraception as I mentioned, and sexually transmitted infection protection is essential to discuss with both men and women especially surrounding the Zika virus era.

Thank you. Before we close, will you share any action steps that may be important to our listeners as we learn more about Zika and its impact on family planning?

Yes, I would say stay up to date. As we speak there is probably new and more information coming out, but stay up to date and we're going to have a list of the resources soon. Work with the local health department and the media to provide simple, clear public health messaging. If you have any access to the media make sure that they are giving good stories but also good public health messaging. Use the agencies that are available, both locally as well as the larger national organizations such as the CDC, OPA, NFPRHA, and the organization that I am working with right now today with you guys, the Family Planning National Training Center. As I said, there's updates almost daily, with new information and be aware there's no vaccine to date and prevention is crucial.

Thanks, Dr. Hathaway, for this timely and valuable information on the Zika virus. Please be aware that the OPA Zika toolkit is pending regarding CDC review and will be released very soon. OPA anticipates a July 7 webinar describing the contents and use of the toolkit.

Please visit the Family Planning National Training Center's website at www.fpntc.org.