More on Zika – what's the plan?

A few days ago, mosquito pictures flooded newspapers and television as the media reported that Florida appears to have confirmed the first cases of Zika spread by local mosquitoes. In the Sunday, July 31, 2016 *Washington Post,* Sonia Shah's feature article stressed that economic conditions have resulted in thousands of foreclosed, abandoned homes with swimming pools constituting a serious mosquito Zika transmission threat. Maybe, but, daily as we learn more about Zika, I am much more concerned about using condoms, contraceptives and sex education to successfully combat the Zika threat and its huge potential to cause fetal and family harm.

Vector surveillance and control is well established in Florida - and several other states - that have served as reservoirs for mosquito spread of diseases, such as dengue and others, since the 1600s. Vigilance is required – and no doubt a few more dollars would help – but there are reasons to believe mass spread of Zika by local mosquitoes is not going to be the major mode of transmission (and control) of this disease in the US. An article entitled "Zika: Are We Looking in the Wrong Direction?" in the July 18, 2016 Newsletter of the American Council of Science and Health raised interesting questions about the limited efficiency and effectiveness of mosquito spread in most of the US.

Such news is not comforting. If proven correct, this means that the major US source of spread would be sexual, as experienced today with individuals from endemic areas infecting sexual partners in the US. Whereas to date, most such spread has been introduced from air travelers from foreign countries and certain US Territories, that could expand to include US citizens visiting US endemic areas by automobile, bus and train and individuals such as military recruits, circus and carnival staff and baseball players heading north in the warm weather.

There are always those who suggest the "magic bullet" is around the corner. In this case a vaccine is the prime candidate. Even if a safe, effective vaccine became available next year would it be a panacea? How many doses could be produced? How much would it cost per dose?

Even assuming a large supply and low cost, who should be immunized? Should we target all individuals living in states with an endemic Zika reservoir? Should we target all females of reproductive age in these states or all states? Should we target all sexually active people in these states or all states (which would include everyone but children and a few older adults)? Should we target all males and females who plan to engage in unprotected sex and not use contraceptives? Should we immunized anyone planning to travel to US and foreign endemic areas?

More importantly, how successful will we be and, related, what will be the logistics. For several years we have urged that pre-adolescents receive protection against the sexual spread of the HPV virus that is the main cause of cervical cancer in women and causes warts in both sexes. About 40% of such females and 20% of males have received the vaccine. Cost is one factor but many families are not convinced of the risk or fear receipt will promote promiscuity. To limit the sexual spread of Zika, rates would have to be much higher.

Health education and promotion, in my estimation, are the major weapon we have to contain the spread of Zika. In addition to expanded efforts at educational institutions and local communities, we need some national "glitz" to drive the message. It is time for Hollywood and Madison Avenue to get involved. We need to see condoms next to mosquitoes. Rather than mosquito nets, think, condom nets. What is the plan?

Published in August 4, 2016 *Charleston Gazette-Mail* as "So what's the plan on Zika now?".