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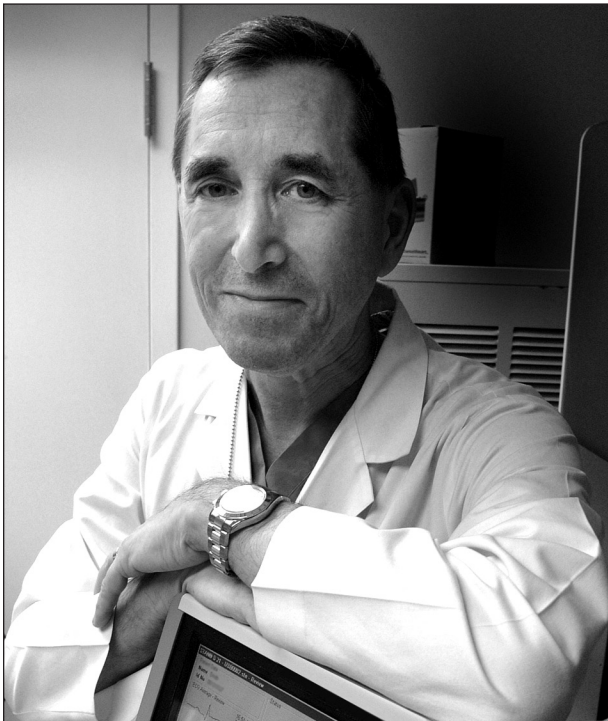
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A Note from the Editor-in-Chief

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Welcome to the March-April 2016 Editor-in-Chief's page. This issue will focus on a pressing healthcare problem for which the state of knowledge, including screening and diagnosis, prevention and treat-



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ment, and long-term sequelae for pregnant women and their unborn children, continues to evolve.

Since the beginning of this year there has been considerable attention paid to the Zika virus and its impact on pregnant women. This pathogen was identified nearly 70 years ago when it first appeared in the Zika Forest of Uganda. Over the following decades the Zika virus has spread to Asia, the Pacific Islands, and most recently to Central and South America and the Caribbean. This virus shares a genetic resemblance to the viruses responsible for other mosquito-borne infections such as dengue and yellow fever. Because of the emerging concern for potential birth defects, pregnant women are now a population of special interest to both epidemiologists and other healthcare professionals. At present, the cumulative medical knowledge about this virus is still somewhat limited as the majority of those infected are asymptomatic; those who do develop symptoms usually have them for a very short duration.

What the working press, most of whom are not medical professionals, has sensationalized is the risk of birth defects, specifically but not limited to microcephaly, following exposure to the Zika virus during pregnancy. The "facts" as we "know" them are that the actual rates of Zika-related birth defects, including microcephaly, are unknown, and that, in endemic areas where most cases have been report-

ed, the availability of testing for those exposed is uncertain. The virus has been isolated in the amniotic fluid of a few exposed patients, showing that it can breach the placental barrier, but there have been relatively few reported instances where both the presence of Zika virus and birth defects have been confirmed.¹ While the usual route of transmission is by way of the *Aedes* mosquito species, a concern has recently arisen that the virus may be sexually transmitted.² This concern has already provoked recommendations from the United States Centers for Disease Control and Prevention (CDC) regarding potential exposures of pregnant women as well as reproductive-age women in general.

The CDC has come out with other recommendations that rely on their in-house laboratory for processing blood samples from suspected cases for further management. The serologic tests for confirmation of Zika infection are either very time-limited due to the short duration of viral particles in those infected or may cross-react with other arboviral species in testing intended to demonstrate prior or recent infection. Further, the turnaround time for CDC processing of blood samples, cited in their website,³ may be quite lengthy, particularly during the summer when arboviral activity peaks in the United States.

Those who have seen the film *Contagion*⁴ or, even more pointedly, have read Sonia Shah's new book *Pandemic*⁵ will recognize the premise here. A rela-

tively below-the-radar bug surfaces because of its potential effects on the unborn, and the epidemiologist button gets pushed. But does that translate into global mosquito abatement programs or vaccine development? This is the crux of the current international discussion that is finally focusing on a public health problem that has achieved global status. Fortunately, the 2016 Olympic games in Rio de Janeiro may finally give the much-needed impetus to undertake the large-scale preventive public healthcare measures that should have already been in place in this and in other endemic regions. Failure to do so may prove to be the writing on the wall for global events like the Olympics for fear of exposure to a disease that presently has neither a specific vaccine nor specific antiviral therapy.

References

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