(OB) because of 2 primary realities: lack of adequate training and a hostile work environment.

On the training issue, they actually agree with us that for a family physician to competently provide obstetrics, extra training is required. Current options for this extra training includes formal OB fellowships after a standard family medicine residency (their model), extra OB training that is part of a longer family medicine residency duration (eg, John Peter Smith Hospital in Fort Worth, Texas and the Greater Lawrence Family Health Center in Lawrence Massachusetts), and residencies that emphasize obstetrics in their 3-year curricula (eg, various Via Christy Family Medicine Residency programs).

On the work environment issue, they mention their "… experience in the southeast …," which is fascinating because a recent study found that several southeastern states have remarkably few rural hospitals that have family physicians who provide obstetrics, especially compared with the western United States.[2] A recent report of the current state of care for pregnant women in rural Alabama concluded that the number of rural hospitals providing obstetric services has fallen from 45 in 1980 to 16 in 2017, which explains why many of these women have to drive more than an hour to reach a facility to deliver.[3] The Executive Director of the Alabama Rural Health Association was quoted as believing that the access issue helps explain why his state has 1 of the country's highest caesarean rates—35.4% of its births in 2015. The author's study of their own OB fellowship graduates (17 over 25 years) show that many areas of rural Alabama have been left uncovered.[4]

We agree with these authors that family physicians with substantial obstetrics training are the best solution for the health of rural pregnant women and their babies. Training options to achieve this goal currently exist. A supportive work environment does not.

Richard A. Young, MD, JPS,
JPS Health Network, Fort Worth, TX, and
R. Levi Sundermeyer, MD, JPS

References

1. Young RA, Sundermeyer RL. Family medicine and obstetrics: Let's stop pretending. J Am Board Fam Med 2018;31:328–331.
2. Young RA. Maternity care services provided by family physicians in rural hospitals. J Am Board Fam Med 2017;30:71–77.
3. Maron DF. Pregnant women often have to travel an hour or more to deliver in rural America. Scientific American. February 16, 2017. Available from: https://www.statnews.com/2017/02/16/pregnant-women-rural-america/. Accessed December 3, 2018.
4. Avery D, Marshall E, Hooper D, Parton J. University of Alabama Fam Med Obstetrics Fellowship: Results and Outcomes, 1986–2011. J Fam Med Obstet. 2013;7:23–31.

doi: 10.3122/jabfm.2019.02.180362

The above letter was referred to the author of the article in question, who offers the following reply.

Re: The Complex Interpretation and Management of Zika Virus Test Results

Dear Editor, we read the publication titled, "Complex Interpretation and Management of Zika Virus Test Results" with great interest.[1] Lin et al concluded that, "*Women with a high pretest probability of Zika virus infection should still receive enhanced prenatal monitoring and newborn evaluation, regardless of the test result. An appropriate interpretation of results depends on what tests are used, patient characteristics, and reasons for testing.*[1]" We would like to discuss and share ideas on this issue. First, it should note that most cases of Zika virus infection are asymptomatic.[2] In the asymptomatic case, the laboratory is the necessary approach to get the diagnosis. The interpretation of the test result depends of several factors as noted by Lin et al.[1] Nevertheless, there are also other considerations in clinical pathology that should be taken. First, the quality control of the laboratory test is necessary. The false-positive and false-negative results are possible and this problem can lead to incorrect diagnosis. The good example is the false-positive Zika virus test due to cross reaction by other arbovirus such as dengue.[3] Nevertheless, the concurrent Zika virus infection with other infection is also possible and the diagnosis of the concurrence is more difficult. Second, the diagnostic limitation of the Zika virus diagnostic test kit should be mentioned. The different sensitivity and specificity of different available diagnostic test kits is observable.[4] According to the external quality assessment study, the surveillance showed difference in analytic sensitivity and specificity of the test methods in different international medical laboratories.[5] To correctly interpret the Zika virus test result, the practitioner should aware of the quality and standards of the clinical laboratory of the medical center.

Sora Yasri,
Medical Center, KMT Primary Care Center, Bangkok, Thailand
Viroj Wiwanitkit,
Department of Biological Science,
Joseph Ayobabalola University, Pune, India

References

1. Lin KW, Kraemer JD, Piltch-Loeb R, Stoto MA. The complex interpretation and management of Zika virus test results. J Am Board Fam Med 2018;31:924–930.
2. Wiwanitkit S, Wiwanitkit V. Afebrile, asymptomatic and non-thrombocytopenic Zika virus infection: Don't miss it! Asian Pac J Trop Med 2016;9:513.
3. Joob B, Wiwanitkit V. Zika virus infection and dengue: A new problem in diagnosis in a dengue-endemic area. Ann Trop Med Public Health 2015;8:145–146.
4. Landry ML, St George K. Laboratory diagnosis of Zika virus infection. Arch Pathol Lab Med 2017;141:60–67.
5. Donoso Mantke O, McCulloch E, Wallace PS, Yue C, Baylis SA, Niedrig M. External Quality Assessment (EQA)

for molecular diagnostics of Zika virus: Experiences from an international EQA Programme, 2016–2018. Viruses 2018;10(9).pii: E491.

doi: 10.3122/jabfm.2019.02.180340

Response: Re: The Complex Interpretation and Management of Zika Virus Test Results

To the Editor: Thank you to Drs Yasril and Wiwanitkit for raising these additional points regarding our article. We agree that clinicians should be aware of all possible sources of error in testing for Zika virus.

Kenneth W. Lin, MD, MPH,
Department of Family Medicine, Georgetown University Medical Center

John D. Kraemer, JD, MPH,
Department of Health Systems Administration, Georgetown University
Rachael Piltch-Loeb, MSPH,
New York University College of Global Public Health, and
Michael A. Stoto, PhD,
Department of Health Systems Administration, Georgetown University, Washington, DC

doi: 10.3122/jabfm.2019.02.180348

The above letter was referred to the author of the article in question, who offers the following reply.