

Supplementary Table S4. Bivariate analysis of characteristics associated with adverse or gross abnormal delivery outcomes among infants born to women with Zika, dengue, and chikungunya infection (Chembio IgM+) during pregnancy in Jos, Nigeria, May 2019-May 2021 (N=101)\*

	Normal delivery outcome, no. (%)†	Adverse/gross abnormal delivery outcome, no. (%)	Fisher's exact p value
<b>Maternal demographic characteristics</b>			
Clinic			
JUTH	21 (80.8)	5 (19.2)	.763
OLA	63 (84.0)	12 (16.0)	
Delivery Year			
May 2019–May 2020	58 (82.9)	12 (17.1)	1.000
Jun 2020–May 2021	26 (83.9)	5 (16.1)	
Age, years			
18–24	18 (78.3)	5 (21.7)	.256
25–34	49 (89.1)	6 (10.9)	
35–45	12 (75.0)	4 (25.0)	
Trimester (weeks)			
1 (≤12)	5 (100)	0 (0)	.210
2 (13–27)	39 (88.6)	5 (11.4)	
3 (≥28)	40 (76.9)	12 (23.1)	
Ethnic group			
Hausa/Fulani	21 (87.5)	3 (12.5)	.845
Yoruba	4 (100)	0 (0)	
Igbo	11 (84.6)	2 (15.4)	
Other	42 (79.3)	11 (20.8)	
Occupation			
Student	15 (88.2)	2 (11.8)	.597
Housewife	21 (75.0)	7 (25.0)	
Employed	44 (84.6)	8 (15.4)	
Unemployed	1 (100)	0 (0)	
Marital status			
Single	0 (0)	1 (100)	.177
Married	79 (83.2)	16 (16.8)	
Education			
None/primary	4 (80.0)	1 (20.0)	.463
Secondary	35 (79.6)	9 (20.5)	
Tertiary	42 (87.5)	6 (12.5)	
<b>Maternal mosquito exposure</b>			
Season			
Dry (Nov 1–Mar 31)	26 (89.7)	3 (10.3)	.382
Rainy (Apr 1–Oct 31)	58 (80.6)	14 (19.4)	
Neighborhood			
City	29 (78.4)	8 (21.6)	.691
Suburb	47 (85.5)	8 (14.6)	
Rural	5 (83.3)	1 (16.7)	
Work setting			
City	30 (79.0)	8 (21.1)	.825
Suburb	46 (85.2)	8 (14.8)	
Rural	5 (83.3)	1 (16.7)	
Majority day environment			
Indoor	23 (71.9)	9 (28.1)	<b>.087</b>
Outdoor	56 (87.5)	8 (12.5)	
Travel to area with mosquitos			
No	56 (80.0)	14 (20.0)	.546
Yes	21 (87.5)	3 (12.5)	
Recent mosquito bite(s) (<2 weeks)			
No	19 (86.4)	3 (13.6)	.759
Yes	65 (82.3)	14 (17.7)	
Prior mosquito bite(s) (>2 weeks)			
No	19 (90.5)	2 (9.5)	.513
Yes	65 (81.3)	15 (18.8)	
<b>Maternal symptoms</b>			
<b>Zika symptoms</b>			
Reported Zika symptoms†			
Asymptomatic	17 (81.0)	4 (19.1)	.749

Symptomatic	67 (83.8)	13 (16.3)	
Fever			
No	38 (84.4)	7 (15.6)	.796
Yes	46 (82.1)	10 (17.9)	
Headache			
No	24 (77.4)	7 (22.6)	.388
Yes	60 (85.7)	10 (14.3)	
Arthralgia			
No	67 (84.8)	12 (15.2)	.519
Yes	17 (77.3)	5 (22.7)	
Myalgia			
No	67 (80.7)	16 (19.3)	.295
Yes	17 (94.4)	1 (5.6)	
Rash			
No	78 (83.9)	15 (16.1)	.619
Yes	6 (75.0)	2 (25.0)	
Conjunctivitis			
No	79 (84.0)	15 (16.0)	.335
Yes	5 (71.4)	2 (28.6)	
<b>Additional arbovirus symptoms</b>			
Fatigue			
No	43 (81.1)	10 (18.9)	.605
Yes	41 (85.4)	7 (14.6)	
Abdominal pain			
No	63 (82.9)	13 (17.1)	1.000
Yes	20 (83.3)	4 (16.7)	
Nausea			
No	62 (81.6)	14 (18.4)	.552
Yes	22 (88.0)	3 (12.0)	
Vomiting			
No	63 (81.8)	14 (18.2)	.756
Yes	21 (87.5)	3 (12.5)	
Eye pain			
No	79 (82.3)	17 (17.7)	.586
Yes	5 (100)	0 (0)	
Joint swelling			
No	83 (83.8)	16 (16.2)	-
Yes	0 (0)	0 (0)	
<b>Pregnancy symptoms</b>			
Anemia			
No	80 (85.1)	14 (14.9)	<b>.091</b>
Yes	4 (57.1)	3 (42.9)	
Hypertension			
Normal	61 (88.4)	8 (11.6)	<b>.063</b>
Elevated/hypertensive	19 (70.4)	8 (29.6)	
Vaginal infection			
No	70 (87.5)	10 (12.5)	<b>.044</b>
Yes	14 (66.7)	7 (33.3)	
<b>Arbovirus IgM+ reactivity</b>			
Arbovirus			
Zika only	6 (85.7)	1 (14.3)	.626
Dengue only	29 (87.9)	4 (12.1)	
Chikungunya only	30 (76.9)	9 (23.1)	
Multiple	19 (86.4)	3 (13.6)	

Abbreviations: IgM, immunoglobulin M; JUTH, Jos University Teaching Hospital; Ref, reference category; OLA, Our Lady of Apostles Hospital.

\*101 study infants born to mothers with a Chembio IgM+ rapid test result during the time period were observed at birth.

Adverse and gross abnormal outcomes include those recorded in hospital birth registers (macerated stillbirth, preterm (<37 weeks gestation), asymmetric intrauterine growth retardation, microcephaly, cleft lip/palate, polydactyly, multiple gross congenital anomalies; n=17); other outcomes, such as neonatal sepsis and jaundice, are not shown.

†Row percentages shown.