



Supplementary material of Pregnancy, Birth, Infant, and Early Childhood Neurodevelopmental Outcomes among a Cohort of Women with Symptoms of Zika Virus Disease during Pregnancy in Three Surveillance Sites, Project *Vigilancia de Embarazadas con Zika* (VEZ), Colombia, 2016–2018

Table S1. Algorithm for classification of Zika virus infection based on Zika virus nucleic acid amplification test (NAAT) results and Zika virus and dengue virus immunoglobulin M (IgM) test results, Project *Vigilancia de Embarazadas con Zika* (VEZ), Colombia, 2016 – 2018.

1. If Zika virus NAAT* of maternal serum or urine, amniotic fluid, umbilical cord tissue, placental tissue, or fetal tissue was positive, regardless of Zika virus IgM test results, then the pregnancy was considered to have **confirmed** Zika virus infection.
2. If Zika virus NAAT* of maternal serum or urine, amniotic fluid, umbilical cord tissue, placental tissue, or fetal tissue was negative or not performed, but maternal or fetal Zika virus IgM test results were positive and dengue virus IgM[†] test results were negative, then the pregnancy was considered to have **presumptive** Zika virus infection.
3. If all Zika virus NAAT* of maternal serum or urine, amniotic fluid, umbilical cord tissue, placental tissue, or fetal tissue

* The interval between symptom onset and NAAT was often prolonged.

[†] Dengue virus IgM was only performed on Zika virus IgM positive samples.

Table S2. Clinical details of 50 fetuses and infants with Zika-associated birth defects including microcephaly only at birth, and 17 infants with postnatal-onset microcephaly, Project *Vigilancia de Embarazadas con Zika* (VEZ), Colombia, 2016–2018.

Case	Trimester of maternal Zika virus (ZIKV) symptoms	Gestational age at delivery in weeks	Growth parameters at birth*:		Main neuroimaging type and findings	Neurodevelopmental sequelae	Escala Abreviada del Desarrollo Alerts (age range and domain of alert noted)	Other findings
			HC, cm (percentile)	Weight, g (percentile)				
1	Second trimester Presumptive ZIKV infection	37 weeks	HC: 33 (49.4)			Eye/vision: normal		
		Male	Weight: 2800 (40.8)		Not available	Hearing: Not available	No alerts in developmental screening	No additional findings
		Live birth	Length: 49 (74.7)			Neurologic: Microcephaly in infant follow-up		
2	No ZIKV testing available	38 weeks	HC: 34 (80)			Eye/vision: Not available		
		Female	Weight: 3640 (94.3)		Not available	Hearing: Not available	Not available	No additional findings
		Live birth	Length: 51 (96.6)			Neurologic: Microcephaly in infant follow-up		
3	Third trimester Presumptive ZIKV infection				Prenatal US: Ventriculomegaly, intracranial calcifications, microcephaly, abnormal cortical gyral patterns		Gross motor alert (6-11 & 12-17 months)	
		36 weeks	HC: 28 (0.04)		Cranial US: Thin cortical mantle, ventriculomegaly,	Eye/vision: Normal	Fine motor alert (6-11 & 12-17 months)	
		Male	Weight: 2420 (24.7)		intraventricular calcifications,	Hearing: Not available	Hearing and language alert (6-11 & 12-17 months)	Cryptorchidism
		Live birth	Length: 48 (71.3)		absent corpus callosum	Neurologic: Microcephaly at birth and infant follow-up, seizures, increased body tone	Personal and social alert (6-11 & 12-17 months)	Prominent occipital bone, craniofacial disproportion
					Cranial CT: Microcephaly, calcifications in frontal and parietal lobes and cerebellum thinning of the cerebral cortex in frontal lobe, absent corpus			

					callosum, absent cerebral sulci, probable lissencephaly, dilated lateral and posterior ventricular horns (ventriculomegaly)			
4	First trimester		HC: 31 (0.29)	Prenatal US: Intracranial calcifications				
	No laboratory evidence of ZIKV infection	41 weeks Female Live birth	Weight: 3520 (64.3)	Brain MRI: Microcephaly Cortical thinning, gliosis in white matter, periventricular leukomalacia	Eye/vision: Possible visual impairment (bilateral strabismus)	Gross motor alert (0-5, 6-11, 12-17, & 18-24 months)		
			Length: 50 (56.5)	Cranial US: Normal	Hearing: Normal exam	Fine motor alert (6-11, 12-17, & 18-24 months)		Narrow forehead, extra skin on head, craniofacial disproportion, absent frenulum, prominent frontal bone
				Cranial CT: Multiple intracranial calcifications in frontal and parietal lobes	Neurologic: Microcephaly at birth and follow up, seizures, swallowing difficulty	Hearing and language alert (6-11, 12-17, & 18- 24 months)		
5	First trimester		HC: 30 (0.09)		Eye/vision: Not available			
	Confirmed ZIKV infection	39 weeks Male Live birth	Weight: 2345 (1.4)	Cranial US: Normal	Hearing: Not available	Not available		SGA
			Length: 48 (21.8)		Neurologic: Microcephaly			
6	Second trimester	40 weeks	HC: 32 (5.12)		Eye/vision: Normal			
	Confirmed ZIKV infection	Female	Weight: 2290 (0.62)	Cranial US: Normal	Hearing: Normal			
		Live birth	Length: 41 (0.00)		Neurologic: Microcephaly in infant follow-up, tone abnormalities. Microcephaly	Gross motor alert (18- 24 months)		SGA
7	Second trimester	38 weeks	HC: no data		Eye/vision: not available			
	No ZIKV testing results	Male	Weight: 2800 (24.3)	Not available	Hearing: normal	Not available		No additional findings
		Live birth	Length: 47 (17.6)		Neurologic: microcephaly in infant follow-up			
8	First trimester	40 weeks	HC: 35 (72.6)		Eye/vision: Not available			
	Presumptive ZIKV infection	Male	Weight: 2940 (12.8)	Cranial US: Ventriculomegaly	Hearing: Not available	Not available		Not available
		Live birth						

			Length: 48 (11.9)		Neurologic: Not available			
9	First trimester	36 weeks	HC: 31 (10.97)	Prenatal US: IUGR, microcephaly, colpocephaly, bilateral ventriculomegaly, Dandy Walker anomaly, Blake pouch cyst, bilateral talipes equinovarus	Eye/vision: Not available	Not available	Short neck, pectus excavatum, hip dystocia, overlapping toes, talipes equinovarus. Infant died at 12 days of age	
	Presumptive ZIKV infection	Male	Weight: 2315 (17.1)		Hearing: Not available			
		Live birth	Length: 46 (29.7)		Neurologic: Not available			
10	First Trimester	40 weeks	HC: 28(0.00)	Prenatal US: Microcephaly, ventriculomegaly, periventricular calcifications, abnormal corpus callosum	Eye/vision: Abnormal retinal pigment	Gross motor alert (6-11, 12-17, & 18-24 months)		
	No ZIKV testing results	Female	Weight: 2900 (16.9)	Cranial CT: Ventriculomegaly, possible dysgenesis of corpus callosum	Hearing: Not available	Fine motor alert (6-11, 12-17, & 18-24 months)		
		Live birth	Length: 49 (44.1)		Neurologic: Microcephaly at birth and follow-up, swallowing difficulty, seizures, increased body tone, movement abnormalities	Hearing and language alert (6-11, 12-17, & 18- 24 months)		
						Personal and social alert (6-11, 12-17, & 18- 24 months)		
						Brain MRI: Thin cortical mantle, ex vacuo enlargement of lateral ventricles		
					Asymmetric cranium			
11	Periconception	34 weeks	HC: 33(92.4)	Cranial CT: Dysgenesis of the corpus callosum, and periventricular calcifications. Ventriculomegaly	Eye/vision: Normal	Not available	Infant positive and amniotic fluid +	
	No ZIKV testing results	Female	Weight: not available		Hearing: Not available			
		Live birth	Length: not available		Neurologic: Not available			
12	First trimester		HC: Not available	Prenatal US: Microcephaly, closure of anterior and posterior fontanels (craniosynostosis), hypoechogenicity and reduction of the frontal lobe of the brain (hypoplasia), microcalcifications	Eye/vision: Retinal calcifications	Not available	Hypogonadism, dysmorphic features, craniosynostosis	
	Confirmed ZIKV infection	28 weeks	Weight: 1270 (80.9)	Hearing: Not available	Neurologic: Not available		Infant died on date of birth	
		Male					Infant brain tissue pathology evaluation: thinning of the cerebral cortex with apoptosis and microcalcifications	
		Live birth	Length: 38 (60.7)					

				Cranial US: Cerebral atrophy, intracranial calcifications, hypoplasia of frontal lobe, vasculitis			
13	First trimester	36 weeks Male	HC: 29 (0.36)	Cranial US: Intracranial calcifications (periventricular and subcortical), dysgenesis of corpus callosum, abnormal gyri, ventriculomegaly	Eye/vision: Microcornea, chorioretinal lesions extramacular scar in left eye. Nystagmus and strabismus	Gross motor alert (6-11, 12-17, & 18-24 months)	
	No ZIKV testing results	Live birth	Weight: 2400 (23.2)	Cranial CT: Increased ventricular size especially of posterior horns. Cortico-subcortical and basal ganglia calcifications, absent sulci, thin cerebral cortex.	Hearing: Normal evaluation	Fine motor alert (6-11, 12-17, & 18-24 months)	Narrow forehead, overlapped sutures, extra skin folds on neck, high arched palate, micrognathia,
			Length: 46 (29.7)	Neurologic: Microcephaly at birth and follow-up, seizures, tone and movement abnormalities, swallowing difficulties		Hearing and language alert (6-11, 12-17, & 18-24 months)	
				Brain MRI: Simplified gyral pattern, ventriculomegaly, agenesis of corpus callosum			
14	First trimester	35 weeks Male	HC: 30 (5.95)	Prenatal US: Ventriculomegaly, megacisterna magna, probable dysgenesis of the corpus callosum	Eye/vision: Abnormal retinal pigment, optic nerve hypoplasia	Gross motor alert (6-11, 12-17, & 18-24 months)	
	No laboratory evidence of ZIKV infection	Live birth	Weight: 2465 (48.9)	Brain MRI: Thin cortical mantle, thin corpus callosum, ventriculomegaly,	Hearing: Normal	Fine motor alert (6-11, 12-17, & 18-24 months)	Abnormal appearance of head
			Length: 46 (49.5)		Neurologic: Microcephaly in infant follow-up, seizures, tone abnormality, movement abnormality	Hearing and language alert (6-11, 12-17, & 18-24 months)	
						Personal and social alert (6-11, 12-17, & 18-24 months)	
15	First trimester	28 weeks Male	HC: 23 (3.19)	Prenatal US: Ventriculomegaly, talipes equinovarus	Eye/vision: Not available	Not available	Club foot, esophageal atresia, abnormal facies, pulmonary malformations

	No laboratory evidence of ZIKV infection		Weight: 910 (19.7)		Hearing: Not available		Infant death
			Length: 33 (4.93)		Neurologic: Not available		
			HC: Not available		Eye/vision: Not available		
16	First trimester	39 weeks	Weight: Not available	Not available	Hearing: Not available	No alerts in developmental screening	No additional findings
	No laboratory available	Female					
		Live birth	Length: Not available		Neurologic: microcephaly in infant follow-up		
17	First trimester	38 weeks	HC: 30 (0.28)	Brain MRI: Hypoplasia of corpus callosum, cerebral atrophy, ventriculomegaly, lissencephaly Cranial CT: Decrease size of cranial vault, dilatation of the supra and infratentorial ventricular systems, decrease of cortical trails in relation to atrophic changes associated with cortical immaturity, discrete decrease in the differentiation of gray and white matter, mega-cisterna magna-like variant, brain atrophy, areas of lissencephaly and pachygyria, hypoplastic corpus callosum	Eye/vision: Bilateral pale and hypoplastic optic nerves, bilateral abnormal retinal pigment dispersion, vision impairment	Gross motor alert (6-11, 12-17, & 18-24 months)	Non-palpable fontanelles, overlapping sutures, low set ear (left), narrow forehead, high arched palate, micrognathia, mildly depressed nasal bridge
	No laboratory evidence of ZIKV infection	Male	Weight: 2800 (24.2)		Hearing: Normal evaluation	Fine motor alert (6-11, 12-17, & 18-24 months)	
		Live birth	Length: 51 (91.5)		Neurologic: Microcephaly at birth and follow-up, seizures, movement abnormality, tone abnormality, swallowing difficulties	Hearing and language alert (6-11, 12-17, & 18-24 months)	
18	Periconception	39 weeks	HC: 28 (0.00)	Cranial US: Ventriculomegaly	Eye/vision: Not available.		
	Presumptive ZIKV infection	Female Live birth	Weight: 2400 (2.62)	Cranial CT: Microcephaly,	Hearing: Not available	Not available	SGA
					Neurologic: Microcephaly		

			Length: 44 (0.42)	cerebral atrophy, ventriculomegaly, intracranial calcifications, (subcortical), absent cavum septum pellucidum, cortical atrophy			
19	First trimester	37 weeks Male Live birth	HC: 32 (20.03)	Cranial US: Parenchymal calcifications, small cerebellum	Eye/vision: Normal	Gross motor alert (0-5, 6-11, 12-17, & 18-24 months)	No additional findings
	Presumptive ZIKV infection		Weight: 2810 (41.8)	Cranial CT: Intracranial calcifications	Hearing: Normal	Fine motor alert (0-5, 6-11, 12-17, & 18-24 months)	
			Length: 47 (32.0)	Brain MRI: Bilateral atrophy of the frontal lobes, right frontal polymicrogyria	Neurologic: Microcephaly in infant follow-up swallowing abnormality, tone abnormality, seizures movement	Hearing and language alert (0-5, 6-11, 12-17, & 18-24 months)	
						Personal and social alert (0-5, 6-11, 12-17, & 18-24 months)	
20	First trimester	33 weeks Female Live birth	HC: 26 (0.10)	Cranial US: Intracranial calcifications bilateral, mild ventricular dilatation	Eye/vision: Retinopathy, bilateral eye proptosis, chorioretinitis in macula,		Dysmorphic features, missing a phalange in 5th finger left hand, bilateral camptodactyly, simian crease, low set ears.
	Presumptive ZIKV infection		Weight: 1105 (1.66)		Hearing: Not available	Not available	
			Length: 38 (0.37)		Neurologic: Microcephaly, arthrogryposis, clenched hands and right upper limb hemiparesis, seizures		Infant died at 4 months of age SGA
21	Second trimester	22 weeks Infant sex not available Fetal loss	HC: Not available	Prenatal US: Ventriculomegaly, corpus callosum abnormality, cerebral atrophy, Alobar holoprosencephaly†	Eye/vision: Not available		
	Confirmed ZIKV infection		Weight: Not available Length: Not available		Hearing: Not available Neurologic: Not available	Not available	Not available
22	Third trimester	37 weeks Female Live birth	HC: not available		Eye/vision: Not available	Gross motor alert (6-11 & 12-17 months)	SGA
	No ZIKV testing results		Weight: 1900 (0.81) Length: 44 (2.98)	Not available	Hearing: Not available Neurologic: Postnatal microcephaly	Fine motor alert (12-17 months)	
23	First trimester	37 weeks Male	HC: 38 (99.9)	Brain MRI: Intracranial calcifications,	Eye/vision: Not available	Not available	Not available

	No ZIKV testing results	Live birth	Weight: 3620 (95.0) Length: 49 (74.7)	cerebral cortical atrophy, prominent subarachnoid space	Hearing: Not available Neurologic: Seizures		
	Periconception	39 weeks	HC: 34 (53.4)		Eye/vision: Not available		
24	No ZIKV testing results	Male Live birth	Weight: 3000 (27.2) Length: 49 (43.0)	Not available	Hearing: Not available Neurologic: microcephaly in infant follow-up	No alerts in developmental screening	Not available
	Second trimester	39 weeks	HC: Not available		Eye/vision: Not available		
25	No ZIKV testing results	Female Live birth	Weight: 2800 (18.9) Length: 49 (58.7)	Not available	Hearing: Not available Neurologic: microcephaly in infant follow-up	No alerts in developmental screening	Not available
	First trimester	39 weeks	HC: 31 (1.62)		Eye/vision: Not available		
26	No ZIKV testing results	Female Live birth	Weight: 2100 (0.40) Length: 51 (93.0)	Not available	Hearing: Not available Neurologic: Microcephaly	No alerts in developmental screening	SGA
	Second trimester	40 weeks	HC: not available		Eye/vision: Not available	Gross motor alert (6-11 & 18-24 months)	
27	No ZIKV testing results	Male Live birth	Weight: 2500 (1.44) Length: 49 (28.2)	Not available	Hearing: Not available Neurologic: Microcephaly in infant follow-up	Fine motor alert (18-24 months) Personal and social alert (18-24 months) Hearing and language alert (18-24 months)	SGA
	Second trimester	37 weeks	HC: 37 (99.9)		Eye/vision: Not available		
28	No ZIKV testing results	Female Live birth	Weight: 3020 (71.3) Length: 47 (43.1)	Prenatal US: hydrocephaly	Hearing: Not available Neurologic: Not available	Not available	No additional findings
	Third trimester	38 weeks	HC: not available		Eye/vision: Not available		
29	No ZIKV testing results	Female Live birth	Weight: 3475 (88.8) Length: 46 (11.3)	Not available	Hearing: Not available Neurologic: Microcephaly in infant follow-up	No alerts in developmental screening	No additional findings
	First trimester	37 weeks	HC: 30 (0.83)		Eye/vision: Not available		
30	No ZIKV testing results	Male Live birth		Not available	Hearing: Not available	No alerts in developmental screening	No additional findings

			Weight: 3085 (67.8)					Neurologic: Microcephaly
			Length: 49 (74.7)					
31	Periconception	40 weeks	HC: 31 (0.68)	Eye/vision: Not available				
	No ZIKV testing results	Female Live birth	Weight: 2890 (16.2)	Prenatal US: normal	Hearing: Not available	Gross motor alert (6-11 months)	No additional findings	
			Length: 45 (0.68)	Neurologic: Microcephaly at birth and in infant follow-up				
32	Second trimester	38 weeks	HC: 31 (2.06)	Prenatal US: Intracardiac echogenic spot, otherwise normal	Eye/vision: Not available			
	Confirmed ZIKV infection	Male Live birth	Weight: 2597 (11.2)		Hearing: Not available	No alerts in developmental screening	No additional findings	
			Length: 45 (2.32)	Cranial US: Normal	Neurologic: Microcephaly at birth			
			Prenatal Ultrasound: Hypoplasia of nasal bone					
			Cranial US: Microcephaly, subcortical calcifications, cerebral and cerebellar abnormality, hydrocephalus					
33	First trimester		HC: 29 (0.10)	Cranial CT: Cerebral, basal ganglia, brain stem and cerebellar atrophy, subcortical calcifications, communicating hydrocephaly, cerebral and cerebellar hypoplasia, and cerebral hypogyratation	Eye/vision: Bilateral red spot in retina, bilateral chorioretinitis, vision impairment			
	No laboratory evidence for ZIKV infection	37 weeks Male Live birth	Weight: 3240 (79.4)		Hearing: Not available	Personal social alert (18-24 months)	Dysmorphic facial features, low set ears	
			Length: 47 (32.0)		Neurologic: Microcephaly at birth and in infant follow-up, seizures, tone, movement and movement swallowing abnormalities			
			Brain MRI: cerebellar atrophy, non-communicating hydrocephalus, thinning of both hemispheres of the brain, smooth appearance of the cortical grooves,					

					thalamic and brain stem hypoplasia			
34	Second trimester No laboratory evidence of ZIKV infection	37 weeks Female Live birth	HC: not available Weight: 2094 (2.73) Length: 44 (2.98)	Prenatal US: Bilateral ventriculomegaly, agenesis of corpus callosum, cortical calcifications Brain MRI: dysgenesis of corpus callosum, posterior horn dilatation, absent septum pellucidum	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly, swallowing difficulty	Gross motor alert (12-17 months) Fine motor alert (12-17 months) Hearing and language alert (12-17 months)	SGA	
35	First trimester No ZIKV testing results	20 weeks Fetal sex not available Fetal loss	HC: not available Weight: not available Length: not available	Prenatal US: Ventriculomegaly, hypoplasia of vermis, absent midline brain structures. Microcephaly. Arthrogryposis	Eye/vision: Not available Hearing: Not available Neurologic: Not available	Not available	Not available	
36	Second Trimester No ZIKV testing results	39 weeks Male Live birth	HC: 31 (0.78) Weight: 2453 (2.51) Length: 49 (43.0)	Cranial US: Normal	Eye/vision: Normal Hearing: Normal Neurologic: Microcephaly, hypotonia	No alerts in developmental screening	SGA	
37	Second trimester No ZIKV testing results	38 weeks Female Live birth	HC: 30 (0.52) Weight: 2800 (32.0) Length: 51(96.6)	Cranial US: Normal	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly	No alerts in developmental screening	No additional findings	
38	Second trimester No ZIKV testing results	39 weeks Female Live birth	HC: 32 (9.86) Weight: 2930 (29.9) Length: 48 (34.0)	Not available	Eye/vision: Visual impairment Hearing: Hearing loss Neurologic: Microcephaly in infant follow-up	No alerts in developmental screening	No additional findings	
39	Second trimester No laboratory evidence of ZIKV infection	40 weeks Female Live birth	HC: 31 (0.68) Weight: 3735 (87.2) Length: 50 (69.1)	Prenatal US: Normal Cranial US: Normal Brain MRI: Normal Spinal MRI: ependymal	Eye/vision: Normal Hearing: Normal Neurologic: Microcephaly	No alerts in developmental screening	Hyperlaxity of ligaments	

				tubular dilation at the level of the medullar cone, probable syringomyelia			
40	First trimester Confirmed ZIKV infection	41 weeks Female Live birth	HC: 32 (2.56) Weight: 3305 (43.2) Length: 51 (79.4)	Prenatal US: talipes equinovarus	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly	Not available	Not available
41	Periconception No ZIKV testing results	38 weeks Male Live birth	HC: 31 (2.06) Weight: 2490 (6.95) Length: 43 (0.20)	Prenatal US: Normal	Eye/vision: Bilateral strabismus Hearing: Not available Neurologic: Microcephaly	No alerts in developmental screening	Umbilical hernia, asymmetric ears SGA
42	Second Trimester No laboratory evidence of ZIKV infection	39 weeks Female Live birth	HC: 31 (3.75) (1.62) Weight: 2747 (15.3) Length: 49 (58.7)	Prenatal US: Normal Cranial US: Normal	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly at birth and follow up	No alerts in developmental screening	No additional findings
43	Second Trimester No ZIKV testing results	40 weeks Female Live birth	HC: 31 (0.68) Weight: 2327 (0.79) Length: 46 (2.58)	Not available	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly	Not available	SGA
44	Second Trimester Confirmed ZIKV infection	40 weeks Male Live birth	HC: 30 (0.03) Weight: 2655 (3.35) Length: 50 (51.9)	Cranial US: Normal	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly	Not available	SGA
45	First trimester Presumptive ZIKV infection	25 weeks Male Live birth	HC: 26 (96.22) Weight: 940 (90.6) Length: 34 (57.9)	Cranial US: Normal	Eye/vision: Right cataract Hearing: Normal Neurologic: Hypotonia	No alerts in developmental screening	Flat nasal bridge, broad forehead
46	First trimester No ZIKV testing results	35 weeks Male Live birth	HC: 29 (1.14) Weight: 2270 (31.1) Length: 45 (29.4)	Not available	Eye/vision: Not available Hearing: Not available Neurologic: Microcephaly	Not available	Not available

47	Third trimester Presumptive ZIKV infection	40 weeks Female Live birth	HC: 30 (0.07)	Prenatal US: Microcephaly	Eye/vision: abnormal visual evoked potentials	Gross motor alert (12- 17 months)	Varus feet, narrow forehead, high arched palate, micrognathia, hip dysplasia
			Weight: 2790 (10.5)	Cranial CT: craniofacial disproportion, reduced brain volume, overlapped sutures. Cortico- subcortical calcification in frontal lobes.			
			Length: 48 (21.8)	Cranial US: Normal	Hearing: Normal	Hearing and language alert (12-17 months)	SGA
48	First trimester No ZIKV testing results	37 weeks Female Live birth	HC: not available	Prenatal US: Normal	Eye/vision: Normal	Gross motor alert (6-11 & 12-17 months)	Micrognathia, flat nasal bridge, low set ears, smooth and short philtrum, sacral dimple, hypopigmented lesions on thorax
			Weight: 2005 (1.59)	Cranial US: Intracranial calcifications.			
			Length: 45 (8.93)	Cranial CT: normal ventricles, periventricular calcifications	Hearing: Normal		
					Neurologic: Tone and movement abnormality		SGA
49	Second trimester No ZIKV testing results	35 weeks Female Live birth	HC: 44 (100)	Prenatal US: Hydrocephaly, polyhydramnio s,	Eye/vision: Not available	Not available	Cleft palate, right talipes equinovarus
			Weight: 2820 (86.9)	Cranial US: Absent corpus callosum, cerebral atrophy, ventriculomega ly/hydrocephal y			
			Length: 43 (7.47)		Hearing: Not available		
					Neurologic: Tone and movement abnormalities		Infant died at 3 days of age
50	First trimester No ZIKV testing results	36 weeks Male Live birth	HC: 33 (64.4)	Not available	Eye/vision: Not available	No alerts in developmental screening	Bilateral hydronephrosis
			Weight: 3090 (82.5)				
			Length: 52 (99.3)		Hearing: Not available		
					Neurologic: microcephaly in infant follow-up		
51	First trimester No laboratory evidence of ZIKV infection	37 weeks Male Live birth	HC: 29 (0.10)	Prenatal US: Ventriculomeg aly, microcephaly	Eye/vision: Macular hypopigmentation, chorioretinal atrophy, vision impairment	Gross motor alert (6-11, 12-17, & 18-24 months)	SGA
			Weight: 2330 (7.78)	Cranial CT: Severe microcephaly, intracranial calcification, cerebral, brain			
			Length: 46 (15.3)		Hearing: Not available	Fine motor alert (6-11, 12-17, & 18-24 months)	
					Neurologic: Microcephaly, seizures, tone abnormality, movement	Hearing and language alert (6-11, 12-17, & 18- 24 months)	

				stem, cerebellar atrophy	abnormality, , swallowing difficulty	Personal and social alert (6-11, 12-17, & 18-24 months)	
52	Periconception	38 weeks	HC: 33 (49.1)	Prenatal US: microcephaly	Eye/vision: Normal		No additional findings
	No laboratory evidence of ZIKV infection	Female Live birth	Weight: 3090 (61.6) Length: 51 (95.5)		Hearing: Not available	No alerts in developmental screening	
53	Second trimester	40 weeks	HC: 34 (39.2)	Not available	Eye/vision: chorioretinal atrophy, vision impairment		No additional findings
	No ZIKV testing results	Male Live birth	Weight: 3380 (49.6) Length: 53 (96.5)		Hearing: normal	No alerts in developmental screening	
54	First trimester	38 weeks	HC: 29 (0.03)	Cranial CT: Microcephaly, ventriculomegaly, cortical atrophy, corpus callosum abnormality, large cisterna magna, abnormal cortical gyral patterns	Eye/vision: Abnormal pigment epithelium. Vision impairment.		SGA
	Presumptive ZIKV infection	Male Live birth	Weight: 2450 (5.75) Length: 47 (17.6)		Hearing: hearing loss	Gross motor alert (6-11 & 18-24 months) Fine motor alert (0-5, 6-11, & 18-24 months)	
55	Third trimester	37 weeks	HC: 29 (0.10)	Prenatal US: Microcephaly, intracranial calcifications, ventriculomegaly	Eye/vision: Abnormal retinal pigment epithelium. Vision impairment		SGA
	No ZIKV testing results	Male Live birth	Weight: 2380 (9.73) Length: 48 (54.0)		Hearing: Normal	Gross motor alert (0-5, 6-11, 12-17, & 18-24 months) Fine motor alert (6-11, 12-17, & 18-24 months)	
				Brain MRI: Pachygyria, cerebral atrophy,	Neurologic: Microcephaly at birth and in infant follow-up, seizures, increased body tone, swallowing difficulty, movement abnormality		

			dysgenesis of corpus callosum, ex vacuo hydrocephaly				
56	First trimester	38 weeks	HC: 35 (89.4)	Cranial US: Normal	Eye/vision: Normal	Hearing and language alert (0-5 & 18-24 months)	No additional findings
	No ZIKV testing results	Male	Weight: 3280 (68.9)	Brain MRI: Ventriculomegaly	Hearing: Normal		
		Livebirth	Length: 52 (97.0)		Neurologic: Normal		
57	First trimester	39 weeks	HC: 32 (9.86)	Cranial US: Normal	Eye/vision: Abnormal retinal pigment epithelium. visual impairment	No alerts in developmental screening	SGA
	No ZIKV testing results	Female	Weight: 2249 (1.05)		Hearing: normal		Craniofacial disproportion
		Livebirth	Length: 47 (15.3)		Neurologic: microcephaly in infant follow-up		High arched palate Low set ears Micrognathia Redundant scalp skin
58	First trimester	40 weeks	HC: 32 (2.27)	Not available	Eye/vision: Not available	Not available	SGA
	No laboratory evidence of ZIKV infection	Male Live birth	Weight: 2800 (6.88)		Hearing: Not available		
			Length: 48 (11.9)		Neurologic: Microcephaly		
59	First trimester			Cranial US: Normal findings			
	No laboratory evidence of ZIKV infection	36 weeks Male Live birth	HC: 35 (96.91) Weight: 2900 (69.2) Length: 50 (94.4)	Cranial CT: Increased sub-arachnoid space at the level of the frontal lobes. Brain MRI: Frontal and parietal cortical atrophy	Eye/vision: Normal Hearing: Hearing loss Neurologic: Seizures, body tone abnormality, movement abnormality	Gross motor alert (6-11 months) Fine motor alert (6-11 months) Hearing and language alert (0-5 months)	Bilateral coxa valga Broad forehead
60	Periconception	34 weeks	HC: 31 (36.1)	Not available	Eye/vision: Normal	No alerts in developmental screening	SGA
	No ZIKV testing results	Male Live birth	Weight: 1610 (6.4)		Hearing: Not available		
			Length: 42 (7.24)		Neurologic: microcephaly in infant follow-up		
61	First trimester	39 weeks	HC: 35 (82.3)	Not available	Eye/vision: Not available	No alerts in developmental screening	No additional findings
	No laboratory evidence of ZIKV infection	Male Live birth	Weight: 3640 (82.8)		Hearing: Not available		
			Length: 51 (84.6)		Neurologic: microcephaly in infant follow-up		

62	First trimester No ZIKV testing results	38 weeks Male Live birth	HC: 33 (34.5)	Cranial US: Parenchymal ischemic lesions	Eye/vision: Abnormal retinal pigment epithelium Pale optic nerves,	Gross motor alert (6-11 & 12-17 months)	No additional findings
			Weight: 2900 (32.9) Length: 55 (99.9)	Cranial CT: Vascular lesion that could be hemorrhage or ischemia in the midline Brain MRI: Periventricular leukomalacia	Hearing: Normal Neurologic: Microcephaly in infant follow-up, tone and movement abnormality	Fine motor alert (6-11, 12-17, & >24 months) Hearing and language alert (6-11, 12-17, & >24 months) Personal and social alert (6-11, 12-17, & >24 months)	
63	First trimester No ZIKV testing results	39 weeks Female Live birth	HC: 34 (70.2)	Not available	Eye/vision: Normal	No alerts in developmental screening	No additional findings
			Weight: 2730 (14.2) Length: 50 (80.4)		Hearing: Normal Neurologic: Microcephaly in infant follow-up		
64	First trimester No ZIKV testing results	38 weeks Male Live birth	HC: 31 (2.06)	Cranial US: Normal	Eye/vision: Not available	No alerts in developmental screening	Not available
			Weight: 2650 (13.9) Length: 50 (79.4)		Hearing: Not available Neurologic: Microcephaly at birth		
65	First trimester No ZIKV testing results	37 weeks Female Live birth	HC: 32 (29.88)	Cranial US: No visualization of the corpus callosum, large occipital horns	Eye/vision: Strabismus	Gross motor alert (6-11, 12-17, & 18-24 months)	Nasal deviation to the left
			Weight: 2700 (39.5) Length: 47 (43.1)	Cranial CT: Intracranial calcifications, mild ventriculomegaly	Hearing: Normal Neurologic: microcephaly in infant follow-up, tone abnormality, movement abnormality, swallowing difficulty	Fine motor alert (6-11, 12-17, & 18-24 months) Hearing and language alert (6-11, 12-17, & 18-24 months) Personal and social alert (6-11, 12-17, & 18-24 months)	
66	Second Trimester No ZIKV testing results	39 weeks Female Live birth	HC: 35 (91.68)	Cranial US: Normal	Eye/vision: Left enophthalmos, right congenital cataract, presumptive staphyloma	Not available	Persistent ductus arteriosus, anterior anus, enlarged clitoris, low set ears
			Weight: 3000 (36.8) Length: 48 (34.0)		Hearing: Not available Neurologic: Not available		Infant death at 5 months of age
67	First trimester No ZIKV testing results	33 weeks Male Live birth	HC: 25 (0.01)	Prenatal US: Suspected aneuploidy, microcephaly, polyhydramnios	Eye/vision: Not available	Not available	SGA
			Weight: 980 (1.00) Length: 35 (0.03)		Hearing: Not available Neurologic: Microcephaly, congenital contractures, bilateral talipes equinovarus		Infant died 1 minute after birth

*Percentiles for weight, length and head circumference at birth based on INTERGROWTH 21st standards (32)

†Brain anomaly described as holoprosencephaly, but insufficient information from imaging or clinical examination to confirm diagnosis.

SGA, small for gestational age (defined as <10th percentile of birth weight by gestational age and sex using INTERGROWTH 21st standards) (32)

Table S3. Characteristics among pregnant women with complete pregnancy outcome data, comparing those with any Zika virus laboratory testing results, and those with no Zika virus laboratory testing results, Project *Vigilancia de Embarazadas con Zika* (VEZ), Colombia, 2016 – 2018.

	Total (N = 1180) N (%)	Pregnant women with testing results (N =5 69) N (%)	Pregnant women without testing results (N = 611) N (%)	Chi-Sq p- value
Zika virus laboratory testing				
Positive	254 (21.5)	254 (44.6)	Not applicable	Not applicable
Confirmed*	220 (86.6)	220 (86.6)	Not applicable	
Presumptive*	34 (13.4)	34 (13.4)	Not applicable	
Negative	315 (26.7)	315 (55.4)	Not applicable	
Maternal age at conception (years)				
				0.1830
<17	106 (9.0)	51 (9.0)	55 (9.0)	
17-19	208 (17.6)	93 (16.3)	115 (18.8)	
20-24	374 (31.7)	181 (31.8)	193 (31.6)	
25-29	249 (21.1)	120 (21.1)	129 (21.1)	
30-34	149 (12.6)	76 (13.4)	73 (12.0)	
≥35	78 (6.6)	35 (6.2)	43 (7.0)	
Not reported	16 (1.4)	13 (2.3)	3 (0.5)	
Maternal education				
				0.0002
< Secondary	120 (10.2)	60 (10.5)	60 (9.8)	
Secondary	595 (50.4)	269 (47.3)	326 (53.4)	
Technical	130 (11.0)	48 (8.4)	82 (13.4)	
Professional	70 (5.9)	35 (6.2)	35 (5.7)	
Not reported	265 (22.5)	157 (27.6)	108 (17.7)	
Gravidity				
				<0.0001
Primigravid	323 (27.4)	190 (33.4)	133 (21.8)	
Multigravid	668 (56.6)	298 (52.4)	370 (60.6)	
Delivery method				
				0.0204
Vaginal	541 (45.9)	282 (49.6)	259 (42.4)	
Caesarean section	622 (52.7)	282 (49.6)	340 (55.7)	

Not reported	17 (1.4)	5 (0.9)	12 (2.0)	
Infant sex**				0.2728
Male	576 (48.1)	273 (47.5)	303 (48.7)	
Female	603 (50.4)	290 (50.4)	313 (50.3)	
Not reported	18 (1.5)	12 (2.1)	6 (1.0)	
Plurality				0.1715
Singleton	1150 (97.5)	553 (97.2)	597 (97.7)	
Twins	12 (1.0)	4 (0.7)	8 (1.3)	
Not reported	18 (1.5)	12 (2.1)	6 (1.0)	
Symptoms reported‡				
Rash	983 (83.3)	471 (82.8)	512 (83.8)	0.6387
Fever	787 (66.7)	358 (62.9)	429 (70.2)	0.0079
Joint pain	691 (58.6)	336 (59.1)	355 (58.1)	0.7408
Headache	612 (51.9)	277 (48.7)	335 (54.8)	0.0347
Conjunctivitis	267 (22.6)	124 (21.8)	143 (23.4)	0.5085
Eye pain	116 (9.8)	58 (10.2)	58 (9.5)	0.6862
Diarrhea	99 (8.4)	50 (8.8)	49 (8.0)	0.6411
Swollen lymph nodes	22 (1.9)	11 (1.9)	11 (1.8)	0.8661
Not reported	72 (6.1)	39 (6.9)	33 (5.4)	0.2974
Trimester of symptom onset				0.0281
Periconception (up to 8 weeks before estimated date of conception)	84 (7.1)	30 (5.3)	54 (8.8)	
First trimester	616 (52.2)	314 (55.2)	302 (49.4)	
Second trimester	397 (33.6)	189 (33.2)	208 (34.0)	
Third trimester	63 (5.3)	24 (4.2)	39 (6.4)	
Not reported	20 (1.7)	12 (2.1)	8 (1.3)	

*Confirmed: Zika virus nucleic acid amplification testing (NAAT) of maternal serum or urine, amniotic fluid, umbilical cord serum or cord tissue, placental tissue, or fetal tissue was positive, regardless of Zika virus immunoglobulin M (IgM) test results; Presumptive: Zika virus NAAT of maternal serum or urine, amniotic fluid, umbilical cord serum or cord tissue, placental tissue, or fetal tissue was negative or not performed, but maternal or fetal Zika virus IgM test results were positive and dengue virus IgM test results were negative. Of note, the interval between symptom onset and NAAT was often prolonged.

** Overall denominator (n=1,192) includes 1,178 live born infants and 14 pregnancy losses. Denominator for subgroup with laboratory testing results (n=573) includes 564 live born infants and 9 pregnancy losses. Denominator for subgroup without laboratory testing results (n=619) includes 614 live born infants and 5 pregnancy losses

‡ Not mutually exclusive; participants could report more than one symptom.

Table S4. Zika virus laboratory testing results, and documentation of samples among those with no Zika virus laboratory testing results, Project *Vigilancia de Embarazadas con Zika* (VEZ), Colombia, 2016 – 2018.

Pregnant women with Zika virus laboratory testing results (N = 569/1180; 48.2%)	
	n (%)
Positive	254 (44.6)
Confirmed*	220 (86.6)
Presumptive*	34 (13.4)
Negative	315 (55.4)
Pregnant women without Zika virus laboratory testing results (N = 611/1,180; 51.8%)	
	n (%)
Documentation of sample collected during pregnancy	597 (97.7)
Sample collected as part of Project VEZ	184 (30.8)
Documentation of sample collected as part of national surveillance (Sivigila) as noted in medical record	413 (69.2)
No documentation of sample collected during pregnancy	14 (2.3)

*Confirmed: Zika virus nucleic acid amplification testing (NAAT) of maternal serum or urine, amniotic fluid, umbilical cord serum or cord tissue, placental tissue, or fetal tissue was positive, regardless of Zika virus immunoglobulin M (IgM) test results; Presumptive: Zika virus NAAT of maternal serum or urine, amniotic fluid, umbilical cord serum or cord tissue, placental tissue, or fetal tissue was negative or not performed, but maternal or fetal Zika virus IgM test results were positive and dengue virus IgM test results were negative. Of note, the interval between symptom onset and NAAT was often prolonged.