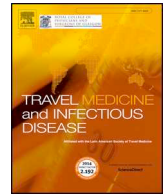




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## The dilemmas and care challenges of Venezuelan pregnant migrants presenting in Colombia

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## Dear Editor,

Venezuela's situation with massive migration to border countries [1,2] is of great international medical importance. The populations leaving Venezuela include children, childbearing and pregnant women. Female refugees are particularly vulnerable, commonly suffering from traumatic conditions and gender-specific health risks, particularly when pregnant. Health care workers have the opportunity to achieve the trust of pregnant women during gravidity, connect refugees with resources, and optimize the health of mother and child [3]. In this setting, a preliminary retrospective analysis of a cohort of Venezuelan pregnant women recently migrated to Colombia was done.

In the period, January 2017–December 2018, a group of 36 pregnant women, recently migrated from Venezuela, attended the Hospital San Juan de Dios, El Santuario, Antioquia (department), Colombia (Fig. 1). El Santuario is a municipality (of 75 km<sup>2</sup>) in Eastern Antioquia, close to Medellin city (60.9 km), with a population of 27,120 people. In this initial preliminary report, the findings of these migrant pregnant women under follow-up, are described.

In this group, 64% disclosed their origin city in Venezuela. Some 65% departed from Maracaibo, Zulia (Fig. 1), followed by Valencia, Carabobo (9%), among a total of eight cities in Venezuela, (Fig. 1). From those reporting the route (64%), 57% entered Colombia crossing by Maicao, La Guajira (Fig. 1) in the northeastern region, 39% by San

Antonio, Táchira-Cucuta, Norte de Santander and one arrived by flight to the closest airport (Medellin International Airport, MDE) (Fig. 1). Eleven out of 23 were in Colombia for less than one year.

Their median age at the first antenatal care was 23.9 years-old (interquartile range [IQR] 20.9–27.7, minimum 15.2), 19% of them were adolescents (< 20 years-old) (Table 1). Median gestational age was 21.9 weeks (IQR 15.8–30.8, minimum 6.9). At the time of this report, 36% had their first antenatal care at our institution, 25% had already two visits, 36% three and 3% four. At physical examination, 75% presented normal blood pressure, but 22% presented with pre-hypertension levels and 3% at stage 1 hypertension (according to the JNC7) (Table 1). The rest of the physical examinations at the initial consultation were normal. None of them had STORCH panel applied and none had the vaccination for DPT or tetanus toxoid.

When humanitarian migration crisis impact, women and girls tend to bear the heavier burden of caring for both families and communities at large. They are often experiencing pre-migratory loss of family members and extended family separations. Moreover, this has been especially the case of Venezuelan families, that have been separated by the migration, in some cases mothers leaving children in the country, in others the fathers leaving the rest of the family when looking for a better income to help them and later bring them to Colombia [3]. Migrating women are at a higher risk of experiencing sexual exploitation, abuse, and general violence. They also suffer from isolation and loss of

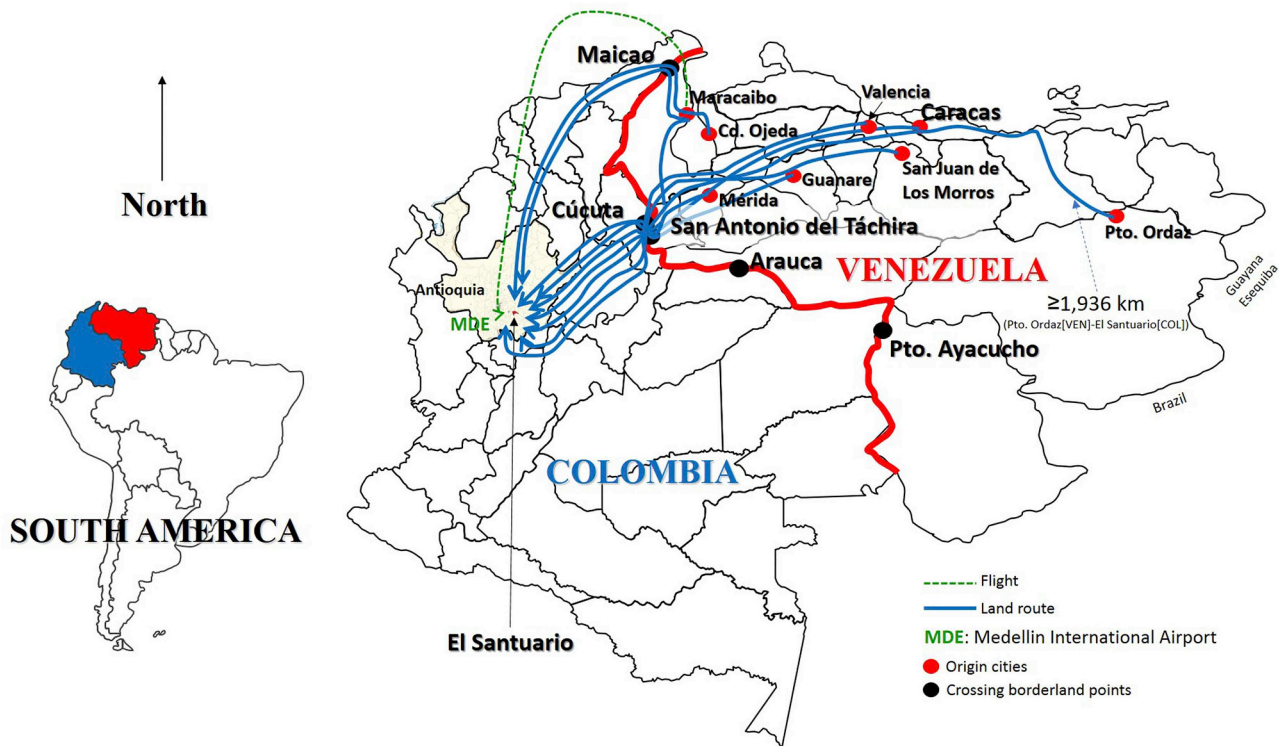


Fig. 1. Map showing the origin cities and crossing points of the Venezuelan migrant pregnant women attended at El Santuario, Antioquia, Colombia, 2017–2018.

existing social support systems, which may affect their health during pregnancy. According to the National Institute of Health (INS Bogota), in 2017, 60 pregnant women with extreme maternal morbidity from other countries arrived in Colombia, 90% of Venezuela, but in 2018 were 349 with 97.4% from that country. Until April 15, 2019, so far, 75 women have been diagnosed, 74 (98.7%) from Venezuela this year [4,5].

Although multiple papers have addressed the impact of migration on infectious diseases in general population [1,6], few studies have yet to examine the consequences of the Venezuelan migration to Colombia and other countries in Latin America, for vulnerable populations, including pregnant women. In this study none of the pregnant women have previous antenatal care (without any previous STORCH screen), almost a fifth of them were adolescents, with a quarter of them presenting high blood pressure and more than two-thirds of them overweight and obesity, among other risk factors under ongoing assessment.

Progress achieved on health in Venezuela during the first decade of the 21st century has been hampered by the increase in maternal mortality rate over the past years. Between 2015 and 2016, maternal deaths increased by 65.4%. Maternal deaths were double in 2016 than they were in 2012 [7]. According to recent estimations from the World Health Organization (WHO), maternal mortality ratio (per 100,000 live births) for 2015, was 95 in Venezuela, while 64 in Colombia [8]. That was also seen among the general health conditions of pregnant women from Venezuela to Colombia [9].

Finally, as expected, most pregnant women are migrating Norte de Santander, but also in La Guajira, Bogota, Bolivar, and Arauca [4,5],

and Antioquia, as seen in the present analyses. Based on data of INS Bogota, in 2017, there were 649 newborns where the mother was a Venezuelan migrant, albeit 3048 births of Venezuelan mothers occurred in 2018 (873% increase) [4,5]. This is a growing, challenging situation that Colombia and other countries in Latin American and maybe abroad will have to address [9].

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#### Conflicts of interest

None.

#### CRediT authorship contribution statement

**Maribel Tobon-Giraldo:** Conceptualization, Data curation, Writing - review & editing. **María Irene Salazar:** Data curation, Writing - review & editing. **Mateo Aguirre-Florez:** Data curation, Writing - review & editing. **Carlos Andrés Montilla-Trejos:** Data curation, Writing - review & editing. **José Antonio Suárez:** Formal analysis, Writing - review & editing. **Alfonso J. Rodríguez-Morales:** Conceptualization, Formal analysis, Methodology, Writing - original draft, Writing - review & editing.

**Table 1**

Demographical, obstetrical and clinical characteristics of 36 Venezuelan migrant pregnant women attended at El Santuario, Antioquia, Colombia, 2017–2018.

Characteristics	Summary measures	
	Median	Interquartile range
Age (years-old)	23.9	20.9–27.7
Gestational age (weeks)	21.9	15.8–30.8
Symphysis-fundal height (cms)	27.0	17.0–30.0
	<b>n</b>	<b>%</b>
<i>Antenatal care visits (number)</i>		
1	13	36
2	9	25
3	13	36
4	1	3
Adolescents (< 20 years-old)	7	19
<i>Personal history</i>		
History of gestational diabetes	0	0
History of thyroid alterations	0	0
History of genetic disorders	0	0
High blood pressure	0	0
	<b>Median</b>	<b>Interquartile range</b>
<i>Physical examination</i>		
Systolic blood pressure (mmHg)	110	110–111
Diastolic blood pressure (mmHg)	70	70–70
Weight (kgs)	66.0	61.5–72.3
Height (m)	1.61	1.56–1.64
Body mass index (kg/m <sup>2</sup> )	25.9	24.2–28.4
	<b>n</b>	<b>%</b>
<i>Findings</i>		
Normal blood pressure	27	75
Prehypertension	8	22
Hypertension stage 1	1	3
Normal weight	12	33
Overweight	18	50
Obesity	6	17
Obesity class I	4	11
Obesity class II	1	3
Obesity class III	1	3

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