Venezuela is suffering from one of the Western Hemisphere’s worst humanitarian crises in recent memory. Nearly ten percent of the country’s population (over three million people) have fled into neighboring countries – Colombia, Brazil, and Ecuador – in search of food, security, and stability. As the political and economic situation continues to deteriorate, an increasingly authoritarian regime shows more interest in maintaining power than helping its citizens. Millions more are likely to flee, and soon Venezuela’s migrant crisis could be on a par with Syria.

This humanitarian crisis is becoming a regional crisis, as more countries must shoulder the responsibility of caring for, treating, and protecting Venezuelan refugees. This is coming not just at a financial cost, but increasingly a political and social cost. Coupled with a resurgent prevalence of diseases due to a collapsed health system, the crisis poses health security risks for its neighbors. The Venezuelan humanitarian crisis is also widely underreported, yet the consequences will remain far-reaching for the foreseeable future.

This project aims to evaluate and assess the capacity and risks for Venezuela’s neighbors to Colombia, which continues to absorb more and more fleeing migrants. An estimated 1.5 million Venezuelans have arrived in Colombia through regular and irregular means, though this project relies upon data from Colombia’s Administrative Registry of Venezuelan Migrants (RAMV) which reports 442,462 registered individuals as of July 2018. By identifying the areas of Colombia that possess a higher vulnerability for its citizens, we can overlay information about where Venezuelan migrants are relocating and examine where there likely will be greater strain on municipal governments and social services.

METHODS

This project aims to assess where Venezuelan migrants are located within Colombia, where the most vulnerable Colombian municipalities are located, and of those municipalities, where are pressure points likely to surface due to influxes of Venezuelan migrants? In order to answer these research questions, a vulnerability score was calculated at the municipal level in Colombia relying on a combination of indicators, including Colombian socioeconomic and infrastructure data, Venezuelan migrant health, and Venezuelan population distribution in Colombia.

Among these three categories, a total of 20 indicators were assessed, including: education coverage, unemployment rate, underemployment rate, GDP per capita income, electricity coverage, aqueduct coverage, sanitation services coverage, housing quality, distance to health facilities; health center consultations, urgent care visits, hospitalizations, cases of malaria, dengue, tuberculosis, HIV/AIDS, extreme maternal morbidity, and neonatal mortality, per 1,000 Venezuelan migrants; and Venezuelan population density per square kilometer and ratio of Venezuelans to Colombians.

Individual indicators were assigned a score based on natural breaks (Jenks), ranked, and reclassified so that each category had a total score of 44. The vulnerability scores of each municipality were aggregated for a resulting vulnerability score. The final map identifies municipalities with the highest vulnerability, which have the greatest likelihood of its vulnerabilities exacerbated by influxes of Venezuelan migrants.

RESULTS

Relevant statistics regarding Venezuelan population distribution and health were available only at the department level, so the first step was estimating the municipal statistics by applying the ratio of Colombian municipal population to department population, in order to mirror likely population distribution of urban and rural areas instead of assuming equal distribution. The areas of highest Venezuelan migrants are Bogotá (43,483, 9.8% of RAMV Venezuelan migrants), Cúcuta, Norte de Santander (39,202, 8.9%), Barranquilla, Atlántico (21,929, 4.9%), and Riohacha (19,484, 4.4%), and the areas of highest ratio of Venezuelans to Colombians can be found in Tame, Arauca (10.6% of total), Dibulla, La Guajira (9.1%), and Ocaña, Norte de Santander (6.3%).

According to the vulnerability assessment, the areas of Colombia most vulnerable due to local socioeconomic and infrastructural conditions are largely in the rural Northern, Western, Southeastern edges of the country, with low incomes, high unemployment, and poor service coverage. Municipalities of high vulnerability for Venezuelan migrants through a health lens analysis are unsurprisingly in areas with high populations of Venezuelan migrants, though the data was normalized to represent the intensity of cases per 1,000 Venezuelan migrants per municipality.

As these indicators are aggregated to the final map, the data identifies the municipalities that are most at risk as those along the Colombian/Venezuelan border and the more rural northern and southern areas of the country. The capital, Bogotá, has a moderately high vulnerability score, as it continues to be a destination for incoming Venezuelan migrants. Such an analysis can be used to project municipal strain on infrastructure and social services. Additionally, as more Venezuelans continue to arrive in Colombia, the information can be used to identify more ideal areas of preferred relocation for Venezuelan arrivals.

LIMITATIONS

RAMV data was missing from one department, and health statistics of Venezuelans was missing from several departments. The RAMV data reflects a fraction of Venezuelans currently located in Colombia, which remains difficult for local authorities to track. Additionally, the crisis in Venezuela continues to worsen, and though this data is from July 2018, the situation continues to change daily. UNHCR statistics show. Each category was weighted equally, but there was no uniform number of indicators within each category (nine, nine and two) – in a future analysis, a more nuanced weighting scheme for each indicator may provide a more accurate analysis.

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