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Characterization, Actions and Control of the Measles Outbreak in Bogota, Colombia

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Introduction

In 2018, there were 208 measles cases confirmed in Colombia and until epidemiological week (EW) 21 of 2019, there were 113 (3,4) cases confirmed. Bogotá was involved in the country's situation, facing the challenge in controlling the breakouts in 2018 and 2019, as this study of characterization shows.

Methodology

Epidemiological surveillance, as well as laboratory data for 2018 were analyzed until EW 21 of 2019 in terms of absolute figures, percentages and rates. The predictive model according to Monte Carlo, with Markov chains, was used to estimate the expected and avoided cases considering mobility and migration, among other parameters.

Results

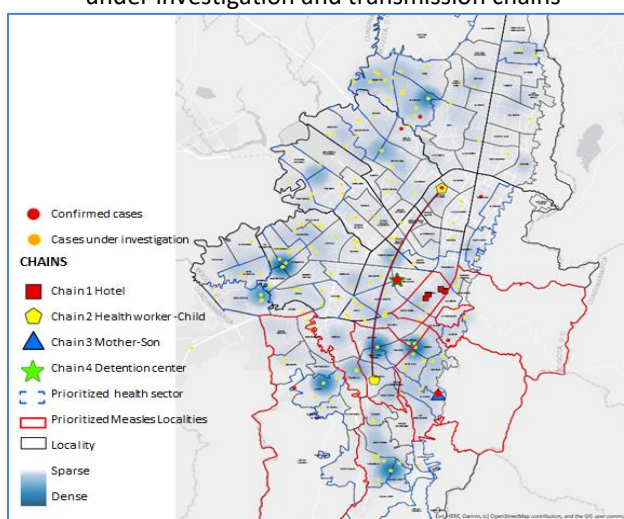
Between EW 23 of 2018 and 19 of 2019, there were 23 cases confirmed, 10 in 2018 and 13 in 2019, 11 Venezuelan migrants (48%) and 12 Colombians (52%) without fatalities; 21 (91,3%) were confirmed by laboratory and 2 (8.7%) by epidemiological link. There were 4 transmission chains detected (see figure 1), with different percentages of Venezuelans and Colombians. The incidence rate in ages below 1 year was the highest with 4.89 cases per 100,000 population. Genotype D8 was identified, lineage MVi/HuluLangat.MYS/26.11 in 20 cases, like the one identified in Venezuela, and the D8, lineage MVs/Gir Somnath. IND/42.16/ in the case imported from Spain. Between 73% and 85% of the 85 and 149 expected cases in a quarter and semester respectively, were avoided.

Discussion and conclusions

The outbreaks are associated with the migration of Venezuelans due to the humanitarian crisis and low vaccination coverage. The effective control was due to: high coverage of residents aged between 1 and 9 years and vulnerable groups by occupation, rapid response, focalized and intensive vaccination, direct communication strategies in priority sectors and intersectoral interaction. Even though circulation of the imported virus was interrupted, the risk of importing from Brazil and other mentioned places persists.



Figure 1.
Density of cases dismissed, confirmed,
under investigation and transmission chains



Source: Measles and Rubella Surveillance Systems, 2018-2019

References

1. Pan American Health Organization. Measles and Rubella Surveillance in the Americas. Measles/Rubella Weekly Bulletin. 24(52)
2. Pan American Health Organization. Manual for the preparation of response in case of imported measles, rubella and congenital rubella syndrome in the post elimination era in the Americas, 2018.
3. National Health Institute. Surveillance protocol of public health. Measles and Rubella. Code 730 and 710 [Internet], 2017 [referenced on June 4, 2019]. Available at https://www.ins.gov.co/buscador-eventos/Lineamientos/PRO_Sarampion-Rubeola.pdf

Course for Diploma in the Management of the Expanded Program on Immunization

Dr. Jazmina Umaña

| | |
|---------------------|---|
| Location | Managua, Nicaragua |
| Dates | 10 October 2019 – 8 February 2020 |
| Participants | Staff from the Expanded Program on Immunization (EPI) of departments, and municipalities, as well as EPI surveillance personnel, in Nicaragua; PAHO/WHO Representative Ana Solís-Ortega Treasure; Director General of Public Health Surveillance in the ministry of health Dr. Martha Reyes |
| Purpose | Update and strengthen the knowledge of the personnel of the Local Integrated Health Systems (SILAIS in Spanish) of each department and municipality of the country, who carry out immunization actions |

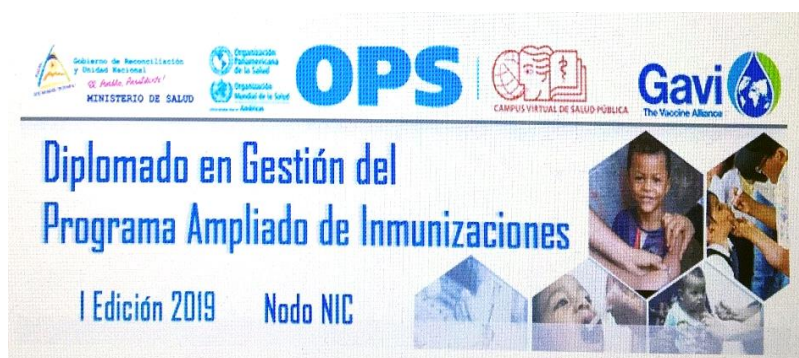
Maintaining achievements in health and strengthening the technical capabilities of health personnel is an important priority for the ministry of health, so they have developed a diploma in Management of the Expanded Program on Immunization (EPI) to achieve maximum performance, quality and impact of health personnel and thus contributing to the welfare of the population and universal health coverage.



Participants from course for diploma in EPI management in Nicaragua, October 2019
Credit: Jazmin Umaña

The EPI is an emblematic program of the ministry of health, which has tried to maintain a basic vaccination schedule to protect the population against 16 vaccine-preventable diseases.

PAHO offers technical cooperation, regulatory guidance and promotes the skills of those who make up the program to effectively manage the EPI on crucial issues such as: planning, follow-up strategies to reach unvaccinated people, cold chain management, maintenance of adequate records, monitoring and evaluation strategies, as support to the ministry for the fulfillment of its objectives and goals.



Website for the course for diploma in EPI management, Nicaragua module

The course for the diploma was developed in the Platform of the Virtual Campus of Public Health (CVSP) for Nicaragua with collaboration from Gavi, PAHO and the BIREME Alliance (Latin American and Caribbean Center for Information on Health Sciences).