PAHO’S RESPONSE TO MAINTAINING AN EFFECTIVE TECHNICAL COOPERATION AGENDA IN VENEZUELA AND NEIGHBORING MEMBER STATES

Background

1. The Bolivarian Republic of Venezuela, a federal republic with more than 30 million inhabitants, has been facing a sociopolitical and economic situation that has negatively impacted social and health indicators.

2. Outbreaks of diphtheria, measles, and malaria have spread rapidly, affecting many of the country’s 23 states and the Capital District simultaneously. Other public health concerns are an increase in tuberculosis cases, as well as maternal and infant mortality, mental health, and violence prevention. A further concern is the limited access to medicines, adequate nutrition, and adequate care for people with life-threatening acute and chronic conditions, including people living with HIV.

3. There have been intensified population movements both within the country and to other countries, particularly Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Peru, and Trinidad and Tobago. Since 2017, and as of June 2019, an estimated 4 million Venezuelans have migrated to other countries, including an estimated 3.2 million who have gone to other Latin America and Caribbean countries (1.3 million in Colombia, 768.1 thousand in Peru, 288.2 thousand in Chile, 263 thousand in Ecuador, 168.3 thousand in Brazil, 130 thousand in Argentina, 94.4 thousand in Panama, 40 thousand in Trinidad and Tobago, 39.5 thousand in Mexico, and 36.4 thousand in Guyana, amongst others).

4. Health system fragmentation, combined with the system’s diminished capacity to respond to priority needs, including core functions of epidemiological surveillance and the generation of health information, has affected the delivery of priority public health services, in particular those needed to prevent and reduce the impact of communicable diseases.

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1 According to PAHO Core Health Indicators, 2018 (published) and Ministry of Popular Power for Health (MPPS) Basic Indicators 2017 (unpublished).

diseases, serve the medical needs of people living with chronic conditions, mental health conditions, or end-stage diseases, and reduce maternal and infant mortality.

5. The health system in Venezuela, while retaining some capacity, is currently under stress due to a combination of factors, including frequent interruptions in the supply of core public services, such as water and electricity in health facilities, health workforce migration, and shortages of medicines and health supplies, particularly at the secondary and tertiary levels. Frequent nationwide disruption of public services (electricity, water, communications, and transportation), including in the Capital District, has hindered access to essential health services, posing new risks and challenges to the national health system. These factors have affected the overall operation of the health network and its capacity to respond to emergencies and disease outbreaks. However, the health system still retains some capacity.

6. In Brazil, migrants have unrestricted access to health care and medicines. Already, thousands of Venezuelan migrants have been relocated from Roraima to cities in different Brazilian states, ensuring their access to the labor market and to the National Social Security System, and regular access to health care services in the National Health System.

7. In Chile, since 2016, the Ministry of Health has been giving all migrants, especially those in conditions of economic vulnerability and in migratory registry processes, preferential access to services within the national health system in line with the national government’s policies, including the Policy on International Migrants’ Health in Chile 2017.3

8. The government of Colombia has enacted a resolution to provide emergency care to migrants, including childbirth services. Migrants from neighboring countries have the right to receive initial emergency care, within the public health network. However, this does not include medicines or diagnostic exams.4 In addition, Venezuelans enrolled in the Administrative Registry for Venezuelan Migrants (RAMV for its acronym in Spanish) are entitled to vaccination under the expanded immunization program, prenatal control, among others.5 Local health authorities report that, due to the progressive increase in health care provided to the uninsured migrant population, public hospitals quickly use up their supplies, leaving them unable to provide certain treatments and reducing access to services.

9. The government of Guyana is working with partners to digitalize the current system for the registration and documentation of Venezuelans. However, recent arrivals to the capital have prompted the government to announce that internal movement from border areas to the capital will be discouraged.6

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10. In Ecuador, in response to the increasing influx of Venezuelan migrants, and in accordance with the National Constitution and the Organic Law on Human Mobility, the Ministry of Health has taken action to protect the right of all persons to access comprehensive healthcare while in Ecuador, regardless of their migratory status.

11. Peru provides healthcare, regardless of migratory status, to children under 5 years old and pregnant women. Immunizations and emergency care, as well as detection, diagnostic, and treatment for Tuberculosis, HIV, vector borne diseases, mental health, and anemia are also provided to all with emphasis on vulnerable populations. 7,8,9,10

12. Trinidad and Tobago has received an influx of migrants from Venezuela in recent years. Between 31 May and 14 June 2019, the Government of Trinidad and Tobago conducted a registration process to allow Venezuelans to regularize their status in the country in order to live and work in Trinidad and Tobago for up to one year. 11

13. The purpose of this information document is to provide an update on PAHO’s response to maintaining an effective technical cooperation agenda in Venezuela and neighboring Member States, from November 2016 to May 2019.

Situation Analysis

Venezuela

14. Malaria transmission remains high in 2019, with 176,877 cases reported as of 25 May 2019 (EW 21), a 10% increase compared to the same period in 2018 (161,219 cases). The states of Bolivar (n=83,880), Sucre (n=27,271), and Amazonas (n=9,779) have reported the highest number of cases since the start of 2019, and 80% of the 33,632 relapse cases were reported in Bolivar State. In the eight years from 2010 to 2018, malaria cases increased by 797% (from 45,155) and autochthonous transmission expanded from 12 to 19 states. In 2018, Venezuela reported 404,924 confirmed malaria cases, 12 more than 50% of the total cases reported in the Region, and a continuation of the epidemic situation recorded since 2015 (rising from 136,402 in 2015 to 240,613 in 2016 and 411,586 in 2017). The increase in cases since 2015 is linked mainly to the migration of infected people from the mining areas of Bolivar State to other areas of the country with malaria-prone ecosystems.

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7 Ley Nº 29344 ley marco de aseguramiento universal en salud.
8 Ley Nº 27604 obligación de los establecimientos de salud a dar atención médica en casos de emergencias y partos.
9 NTS Nº 097-MINSA/DGSP-V.03 Atención Integral del Adulto con Infección por el Virus de la Inmunodeficiencia Humana (VIH).
10 NTS Nº 104-MINSA/DGSP-V.01 Atención Integral de las Personas afectadas por Tuberculosis.
12 *Plasmodium vivax* (75.9%), *P. falciparum* (17.7%), *P. malariae* (0.002%), and mixed *P. falciparum* and *P. vivax* (caused 6%).
shortages or unaffordability of antimalarial drugs, and weakened vector control programs. The progression of the transmission due to *Plasmodium falciparum* and *Plasmodium vivax* between 2010 and 2017 is noteworthy, having reached municipalities in which malaria had not been reported in decades.\(^\text{14}\) In 2018, *P. vivax* caused the highest incidence, accounting for 75.9% of cases nationally; *P. falciparum* caused 17.7%; *P. malariae* 0.002%; and mixed *P. falciparum* and *P. vivax* infection, 6%. Reported malaria deaths increased markedly in 2017, with a reduction in 2018 (105 deaths in 2016, 333 deaths in 2017 and 257 deaths in 2018).\(^\text{15}\) In 2019, as of 25 May 2019, 59 suspected malaria deaths (currently under investigation) have been reported, representing a decrease from the same period in 2018 (159 deaths). The export of sporadic cases to countries without malaria poses a challenge for the early detection and prevention of complications associated with the disease. Other important risks include the increase in malaria cases in border areas of neighboring countries, potential emergence of drug-resistant strains, reintroduction of local transmission in previously malaria-free areas, and inadequate treatment with continued increase in malaria-related mortality.\(^\text{16,17,18}\)

15. The measles outbreak that started in July 2017, with cases reported in all 23 states and the Capital District in Venezuela, has been progressively controlled. In 2019, there have been 203 confirmed cases with dates of onset of rash up to 4 May, representing a marked reduction of 92.5% compared to same period in 2018 (2,697 cases). Confirmed cases were reported in Anzoátegui (87), Zulia (84), Carabobo (9), Monagas (8), the Capital District (7), Miranda (3), Cojedes (2), Amazonas (1), Aragua (1), and Bolívar (1). Between 1 July 2017 (the first confirmed case of measles) and 4 May 2019, there were 6,600 confirmed cases (727 in 2017, 5,670 in 2018, and 203 in 2019). The national cumulative incidence rate during 2017-2019 was 21 cases per 100,000 population, with the highest cumulative incidence of cases reported in Delta Amacuro, the Capital District, Amazonas, Bolivar, Vargas, and Miranda, Zulia, and Anzoátegui. Of the total 78 deaths reported, two were in 2017 in Bolivar and 76 in 2018 (37 in Delta Amacuro, 27 in Amazonas, eight in Miranda, three in the Capital District, and one in Bolívar).\(^\text{19}\) Since 2018, Argentina, Brazil, Colombia, Canada, Chile, Ecuador, Peru, and the United States of America have also reported cases, where the D8 genotype,\(^\text{20}\) associated with the outbreak in Venezuela, was identified. This genotype and lineage is now circulating as endemic both in Venezuela and Brazil.\(^\text{21}\) The spread of the virus is explained by many factors, including: a) insufficient vaccination coverage, leaving pockets of susceptible population; b) inadequate surveillance systems; c) delayed implementation of control measures; d) low capacity for isolation and

\(^{14}\) World Malaria report, 2018.

\(^{15}\) MPPS: Annual Country Report on Malaria Situation submitted to PAHO/WHO, May 2019

\(^{16}\) Venezuela IHR National Focal Point, 12 April 2019, unpublished communication.


adequate case management; and e) high population movement across borders during the incubation or communicable period of the virus.

16. The diphtheria outbreak that began in Venezuela in June/July 2016 (EW 26) is ongoing. From the beginning of the outbreak to 11 May 2019, a total of 2,752 suspected diphtheria cases were reported, including 284 deaths (324 cases and 17 deaths in 2016, 1,040 cases and 103 deaths in 2017, 1,207 cases and 150 deaths in 2018, and 278 cases and 13 deaths in 2019; 1,720 of the cases were confirmed). In 2016, cases were reported in five states (Anzoátegui, Bolívar, Delta Amacuro, Monagas, and Sucre), while in 2017 and 2018, 22 states and the Capital District reported confirmed cases. Since 2019, 22 states had reported cases up to 25 May. A total of 284 deaths were reported (17 in 2016, 103 in 2017, 151 in 2018, and 13 in 2019).22

17. Venezuela, with the support of the Pan American Sanitary Bureau (PASB) and other partners, launched a combined measles and diphtheria immunization campaign, focusing specifically on nine states and progressively expanding to the entire country. Between April 2018 and May 2019, 8.6 million children between the ages of 6 months and 15 years, and 460,844 individuals over age 15, were vaccinated against measles in all states. The campaign achieved 97% coverage nationwide. As of May 2019, 4.7 million children between 7 and 15 years of age had been vaccinated against diphtheria and most states had achieved vaccination coverage above 95%. Exceptions are the following seven states, where vaccination activities continue towards achieving above 95% coverage: Anzoátegui, Apure, Bolívar, Cojedes, Falcón, Portuguesa, and Trujillo. In addition, departments that have reached ≥95% coverage are conducting field monitoring to ensure there are no remaining pockets of unvaccinated children.

18. In 2019, up to 6 April, 190 maternal deaths were reported (110.29 deaths per 100,000 live births), 12% fewer than reported for the same period in 2018 (216). Of the total, 132 deaths were due to direct causes and the remaining 58 were due to indirect causes. An average of 12 deaths per week were reported during this period; 98.6% were intrahospital deaths.23 Maternal mortality is a very good proxy for measuring the capacity of the health system.

19. Between 30 December 2018 and 16 May 2019, 274,277 cases of acute diarrheal disease were reported in the country, with 76 deaths. The highest incidence rates were reported among children under 1 year of age (6,816 cases per 100,000 population) and in Anzoátegui State. Though the number of cases has remained below the alert threshold at the national level, in the week of 10 March 2019 (EW11), four states (Guárico, Portuguesa, Sucre, and Trujillo) were at the epidemic threshold for cases among children <1 year; two states (Guárico and Sucre) were at the epidemic threshold for cases among children aged 1-4 years; and two states (Falcón and Sucre) were at the epidemic threshold for cases

23 MPPS National Epidemiology Directorate.
among persons ≥5 years. Enhanced surveillance is ongoing in states that are below the epidemic threshold.\textsuperscript{24} According to data from the national survey of living conditions (Encuesta Nacional de Condiciones de Vida—ENCOVI 2018), only 29% of the population had water supply in their homes every day in 2018, compared to 45% in 2017. The percentage of people receiving water every 15 days increased from 10% in 2017 to 14% in 2018.\textsuperscript{25} In terms of sanitation coverage, according to the UNICEF/WHO Joint Monitoring Program, only 24% of sanitation systems are adequately managed, and open defecation is practiced in rural areas.\textsuperscript{26} Health promotion strategies and interventions are not actively implemented in vulnerable areas, further complicating the health situation.

20. New HIV infections are estimated to have increased by 24% from 2010 to 2016, with 6,500 new infections in a total of 120,000 persons living with HIV.\textsuperscript{27} Since 2017, official HIV surveillance data have been unavailable as shortages in diagnostics have significantly affected the capacity to detect new cases of HIV infection. During 2018, the national HIV/AIDS program reported episodes of stock-outs of antiretroviral medicines, affecting up to 84% of registered persons with HIV receiving care in the public sector.\textsuperscript{28} Nevertheless, since Venezuela received additional antiretroviral medicines in early 2019, the country has been transitioning to dolutegravir-based regimens, which could benefit up to 85% of persons registered for HIV care. Unfortunately, the transition to these new treatment regimens has been slow and there is limited availability of antiretroviral medicines for alternative regimens, pregnant women, children, and prevention and treatment of opportunistic infections. There are also currently no reagents for HIV viral load monitoring.\textsuperscript{29}

21. Newly detected tuberculosis (TB) cases increased between 2014 (6,063) and 2017 (10,185). Preliminary information for 2018 indicates 10,575 new cases, an incidence rate of 33.2 per 100,000 population, representing an increase of 2.5% with respect to 2017. Half of the cases are in the Capital District and four other states.\textsuperscript{30} Prisoners (16.9%) and indigenous people (5.6%) are most affected.\textsuperscript{31} Co-morbidities account for almost 10% of cases (4.1% TB/HIV and 4% TB/diabetes), with a rising trend for TB/diabetes. Additionally, between 2014 and 2017, the number of drug-resistant TB cases increased.

\textsuperscript{24} Venezuela IHR National Focal Point, 12 April 2019, unpublished communication.
\textsuperscript{26} UNICEF/WHO, 2017 Joint Monitoring Program Progress Report \url{https://washdata.org/data/household/#/}
\textsuperscript{27} UNAIDS, 2017 Spectrum estimates, \url{https://www.unaids.org/en/regionscountries/countries/venezuela}
\textsuperscript{29} Updated Master Plan for strengthening the HIV, tuberculosis and malaria response in the Bolivarian Republic of Venezuela from a public health perspective. Available from \url{https://bit.ly/2Kr94xA}
\textsuperscript{31} MPPS, National Tuberculosis Control Program 2018.
from 39 to 81, then decreased to 58 in 2018. The recent lack of laboratory supplies and the number of available laboratories performing smear microscopy has affected TB diagnosis, which may explain the decrease from 2017 to 2018. Considering these challenges, the country may experience difficulty to reach the targets established in the End TB Strategy.

22. In 2016, noncommunicable diseases—principally cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases—were responsible for approximately 125,800 deaths, representing 70% of all deaths in Venezuela.\(^{32}\) This is lower than the regional average of 81%.\(^{33}\) Also in 2016, an estimated 17% of adults had elevated blood pressure and an estimated 9% had elevated blood glucose/diabetes, requiring essential medicines and care to treat their conditions and prevent premature death due to NCDs.\(^{34}\) Homicide is also a major concern, with an estimated 49.2 deaths per 100,000 population from this cause in Venezuela in 2016. This rate is almost three times higher than the regional average of 17.9 per 100,000, and more than seven times the global average of 6.4 per 100,000.\(^{35}\) Beyond these deaths, many more women, men, boys, and girls, including health workers in Venezuela, suffer injuries and experience physical and mental ill-health as the result of violence. It is necessary to increase the capacity for emergency health response and to train health care workers in strategies to prevent violence and respond to the needs of victims of violence.

23. The Venezuelan health system continues to operate, but with significant challenges. The system has a network of 288 hospitals (levels I through IV), a network of 421 centers for ambulatory specialized care, and a community-based network (Red de Atención Comunal)\(^{36}\) with 17,986 primary care centers. Misión Barrio Adentro, established in 2003, has significantly expanded primary care services to the population. In 2017, the government launched Barrio Adentro 100%, aiming for 100% coverage. This initiative led to important investments in health infrastructure and technology at both the hospital and primary care levels and in human resources development (202 projects for rehabilitation, maintenance, and equipment for 80 centers).\(^{37}\) As part of Misión Barrio Adentro, 23,990 “comprehensive community doctors” (médicos integrales comunitarios) have graduated in seven cohorts from 2011 to August 2018. Additionally, 12,269 doctors received credentials in comprehensive general medicine. On 23-24 August 2018, the government convened the first National Revolutionary Congress for Health to discuss the development of the National Health Plan 2019-2025, aiming to transform the health system to address current challenges.

24. Nevertheless, there has been a progressive loss of operational capacity in the national health system over the past six years, and this has become more acute since 2017,

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https://www.who.int/nmh/countries/2018/ven_en.pdf?ua=1


https://www.who.int/nmh/countries/2018/ven_en.pdf?ua=1

\(^{35}\) WHO, Global Health Observatory, 2019.  

\(^{36}\) MPPS, unpublished report.

\(^{37}\) MPPS, unpublished presentation, 13 June 2018.
affecting the delivery of health care and access to medicines without charge at the point of service. Many hospitals are operating in challenging conditions and are unable to ensure a supply of basic support services. In 2018, the Venezuelan Medical Federation estimated that approximately 22,000 physicians had migrated out of the country. This figure represents approximately one third of the country’s 66,138 physicians in 2014. The migration of physicians has predominately affected certain specialty areas (neonatology, anesthesiology, oncology, nephrology, and intensive and emergency care). Similarly, an estimated 6,000 bioanalysts and laboratory technicians have reportedly left the country, and the Venezuelan Federation of Nursing Schools estimates that between 3,000 and 5,000 nurses have also migrated.

25. Immediate action is required to address short-term priorities, in order to ensure operational capacity within health services and access to medicines and health technologies, and to rationalize existing resources while mobilizing additional resources. This is necessary in order to address disease outbreaks and increase the system’s capacity to provide comprehensive care for priority conditions, physical and mental health, and emergencies. In the medium term, opportunities exist to transform the health system to reduce fragmentation and segmentation, stem the migration of health workers, ensure sustainability, and improve resilience.

**Neighboring Countries**

26. In 2019, as of 25 May, Argentina reported four confirmed measles cases. Three were imported (one each from Hong Kong, Brazil, and Russia) and one was import-related. Between 11 March and 29 December 2018, 14 measles cases were confirmed, with an equal number of males and females, all of them in residents of the city and province of Buenos Aires. The ages ranged from 5 months to 26 years, with a median age of 7 months. Two cases were imported (with travel history to Asia), one was import-related, and 11 were related to an importation of unknown origin. Nine of the 11 cases were identified as genotype D8, associated with the outbreak in Venezuela.³⁸

27. In 2018, Brazil reported 193,811 malaria cases, of which 4,860 (2.5%) were imported from Venezuela, representing 74% of all imported malaria cases in the country (6,604). This compares to 193,917 cases reported in 2017, of which 2,577³⁹ (34% due to *P. falciparum*) were imported from Venezuela, representing 55% of all imported malaria cases in Brazil (4,681). The majority of imported cases from Venezuela were reported in Roraima. In 2018, Roraima reported 23,368 malaria cases, including 5,213 imported cases, of which 85% (4,478) were from Venezuela (31% due to *P. falciparum*). The remaining 15% of imported cases in Roraima were from other Brazilian states and six other countries

³⁹ Brazil Ministry of Health retrospectively updated the figures previously reported to the 56th Directing Council (2,576 malaria cases and 35% *P. falciparum*)
(Colombia, French Guiana, Guyana, Nigeria, Panama, and Suriname). Between January and 31 May 2019, 7,662 malaria cases were reported in Roraima, including 1,069 (13.9%) imported cases, of which 80% (850) were from Venezuela (16% due to P. falciparum). The remaining 20% were from other Brazilian states and three other countries (French Guiana, Guyana, and Suriname). In Roraima, this represents a 71% reduction in imported cases from Venezuela, compared to the same period in 2018 (2,962). The border between Venezuela and Brazil was closed between February and May 2019.

In March 2019, the Ministry of Health of Brazil announced that the country had reestablished endemic transmission of measles on 19 February 2019, due to ongoing transmission of the same genotype D8 for more than 12 months, mainly in the state of Pará. The ongoing measles outbreak started in the week of 4 February 2018 (EW 6) in Roraima State, then spread to Amazonas State and subsequently to nine additional states. In 2019, up to 5 June 2019, 123 measles cases were confirmed in seven states: Amazonas (4), Roraima (1), Pará (53); São Paulo (51), Santa Catarina (3), Rio de Janeiro (7), and Minas Gerais (4). Between 4 February and 29 December 2018, 10,326 cases were confirmed, with a national incidence rate of 5 per 100,000 population in the states of Amazonas (9,803), Bahia (3), Federal District (1), Roraima (361), Pará (79), Pernambuco (4), Rio de Janeiro (20), Rio Grande do Sul (46), Rondônia (2), São Paulo (3), and Sergipe (4). Twelve deaths were reported in 2018 (five Venezuelan children and seven Brazilian children and adults). Four of these were reported in Roraima, six in Amazonas, and two in Pará. During 2018 and 2019, in Amazonas, Roraima, and Pará state, the identified genotype was D8, similar to that reported in Venezuela and other countries of the Region. A different D8 genotype was identified in cases in São Paulo, Santa Catarina, Rio de Janeiro, and Minas Gerais. Additionally, one case from Rio Grande do Sul had genotype B3, with a history of travel to Europe. Nine of the 11 states that had confirmed cases of measles in 2018 have interrupted transmission in 2019 for more than 12 weeks since the last case (range between 13 and 32 weeks). Dates of rash onset of the last confirmed cases were: 21 May in Sao Paulo, 7 May in Rio de Janeiro, and 3 April in Pará.

In 2017, five cases of diphtheria were confirmed in four Brazilian states, including a fatal case imported from Venezuela. The one diphtheria case confirmed in 2018 did not have an epidemiological link to Venezuela. In 2018, responding to the growing demand for health services in Roraima, the Ministry of Health programmed specific additional funds for upgrading of health units, strengthening and expanding hospital care,

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40 Data should be considered preliminary due to delays in reporting.
41 Brazil Ministry of Health, Malaria Epidemiological Information System (Sivep-Malaria), accessed 11 June 2019.
43 Brazil IHR National Focal Point to PAHO/WHO. Personal communication on June 17, 2019.
strengthening primary health care, and acquisition of vaccines. Of these resources, funds will be used to expand health care within the state. Roraima will also receive additional annual funding to expand hospital care and for primary health care in the municipalities of Pacaraima and Boa Vista.\textsuperscript{46}

30. Between 3 June 2018 and 26 January 2019, Chile reported 27 measles cases (23 in 2018 and four in 2019). Nine were imported and 18 were import-related; 14 required hospitalization, with no deaths reported; 54% of confirmed cases were male and 57% were children under 1 year old (below the minimum age required for the first dose of measles vaccine). Eighteen cases were confirmed as infected by the D8 genotype, which is also circulating in Venezuela, while one case was confirmed with a D8 genotype of a different lineage. Six of the nine imported cases were from Venezuela and the other three from Argentina, Colombia, and Germany.\textsuperscript{47}

31. In Colombia, 109 confirmed measles cases were reported in 2019 as of 11 May in the departments of Atlántico, Cesar, Córdoba, Cundinamarca, La Guajira, and Norte de Santander, and in the districts of Barranquilla and Bogotá. Of the 109 confirmed cases, 35 (32.1%) were imported from Venezuela and 61 (55.9%) were import-related (13 from Venezuela and 48 from Colombia). The source of infection for the other 13 cases (12%) remains under investigation.\textsuperscript{48} A total of 318 measles cases were confirmed in the country between 4 March 2018 and 11 May 2019 (209 with dates of rash onset in 2018 and 109 in 2019) in 14 departments and four districts. During this period, 8,752 suspected measles cases were reported, with no deaths. The cumulative national incidence rate is 0.22 cases per 100,000 population, and the highest cumulative incidence rates have been reported in: Cartagena, Barranquilla, and Bolivar. Genotyping performed on samples for 87 cases indicated genotype D8 lineage, similar to the one circulating in Venezuela. In the first 12 weeks of 2019, there were 12 suspected diphtheria cases, three of which were classified as probable and the remainder dismissed.\textsuperscript{49} Between 31 December 2017 and 29 December 2018, Colombia confirmed eight cases of diphtheria (five in La Guajira and three in Norte de Santander), including three deaths.\textsuperscript{50} Confirmed cases were males ranging in age from 3 to 37 years, six of them Venezuelan citizens.

\textsuperscript{46} Brazil Ministry of Health, “Roraima ganha reforço de R$ 187 milhões em resposta à imigração.” Available in Portuguese from: https://bit.ly/2iXDW9A
\textsuperscript{47} Ministerio de Salud Oficina de Cooperación y Asuntos Internacionales. Email communication, 13 June 2019.
32. Colombia reported 34,742 malaria cases between 30 December 2018 and 25 May 2019, including 34,118 cases of uncomplicated malaria and 624 complicated cases;\(^5\) 1,017 (2.9%) of these were imported, with 995 from Venezuela [\textit{P. falciparum} (88), \textit{P. vivax} (894), and mixed (13) infections]. This represents a 53.8% increase in imported malaria cases from Venezuela compared to the same period in 2018 (683 imported malaria cases of which 647 were from Venezuela).\(^6\) In 2018, 1,825 imported malaria cases were reported in Colombia of which 95% were from Venezuela. This represents a more than fivefold increase since 2014.\(^7\) The departments of Arauca, Caquetá, and Norte de Santander on the border with Venezuela, reported an increase in malaria cases higher than the 2012-2017 average.\(^8\)

33. In Ecuador, between 25 March and 29 December 2018, 19 confirmed measles cases were reported, of which nine were imported (all Venezuelans) and 10 were import-related. The cases were reported in Quito (12 cases), Cuenca (1), Riobamba (1), and Tucán (5).\(^9\) As of June 2019, 121,086 persons under 15 years of age from Venezuela were screened for measles vaccine history and 26,708 doses of MMR and MR vaccines were administered.\(^10\) As of 25 May 2019, 17 cases of malaria had been reported in Venezuelan migrants, representing 34% of imported cases (50 in total) and 1.8% of total malaria cases in the country. The Ministry of Health estimated that in 2017, 36,544 persons living with HIV-PPV in the country and 19,545 of the received regular antiretroviral treatment.\(^11\) Between January and April 2019, the Ministry of Health reported that 176 migrant persons living with HIV received care in comprehensive attention units in 19 of the country’s 24 provinces, mainly in Pichincha (78, 44.6%), Guayas (39, 22%) and El Oro (10, 6%). These provinces are officially part of the migration corridor\(^12\) or they adjoin it. However, since the National Government does not have an HIV patient registry that disaggregates


dor-eventos/BoletinEpidemiologico/2019%20Bolet%C3%ADn%20epidemiol%C3%B3gico%20semana%204.pdf

\(^{54}\) Colombia National Institute of Health (INS). Boletín Epidemiologico Semanal (BES). Instituto Nacional De Salud. [Online] December 2018! https://www.ins.gov.co/buscador-eventos/BoletinEpidemiologico/2018%20Bolet%C3%ADn%20epidemiol%C3%B3gico%20semana%2052.pdf


\(^{56}\) Ecuador, Ministry of Public Health.

\(^{57}\) https://www.salud.gob.ec/vih/

\(^{58}\) The humanitarian/migration corridor was established by the national government for the safe, free, and orderly transit of Venezuelan migrants on the northern border of Ecuador towards Huaquillas on the border with Peru. https://www.ministeriointerior.gob.ec/ecuador-activa-corredor-humanitario-para-garantizar-el-transito-seguro-de-migrantes-venezolanos/
data by nationality, and has not yet conducted epidemiological tracing for HIV, no direct link has been established between the national HIV incidence and human migration. As a result of the peaks in HIV incidence, the Ministry of Health has started an HIV patient data registry to ensure access to essential health services.

34. In Guyana, between January and April 2019, 153 malaria cases were reported in Region VII in Kaikan (near the border with Venezuela), an almost 900% increase compared to 2017 (17 cases). The increase was mainly driven by imported cases (86 from Venezuela in 2019, compared to four cases in 2017). In 2018, there was an approximately 13% increase in malaria cases at the national level, compared to 2017, due mainly to cases in Region 1. An increase in malaria cases was also reported in 2017 in Region 1 (Barima-Waini). Guyana continues to be free from measles, diphtheria, and rubella.

35. Peru reported two confirmed cases of imported measles in 2019, as of 20 May 2019, with a source of infection outside of the Americas. Between 18 February and 29 December 2018, 42 confirmed cases of measles were reported, with ages ranging from 4 months to 51 years (median 18 months). No deaths were reported. Cases were from Amazonas, Callao, Cusco, Ica, La Libertad, Lima, Piura, and Puno. Of the confirmed cases, 24 were associated with the genotype D8 circulating in other countries in the Region, by molecular epidemiology or epidemiological link to a laboratory-confirmed case where genotype D8 was identified. As of EW 18 2018, one diphtheria case was identified and contained at the northwest border with Ecuador in Amazonas department. No additional cases of diphtheria have been reported in the country since then. In 2019, up to 1st of June, 8,650 malaria cases were notified, 63% less than the same period in 2018 (23,455). Peruvian health authorities reported 16 imported malaria cases as of 11 May 2019, six of them imported from Venezuela. In 2018, 36 malaria cases were reported in the Tumbes region, where no malaria cases had been reported since 2012. This area is now at a high risk for the re-introduction of Vivax malaria. Nineteen of these cases were imported from Venezuela.

36. In Peru, by the end of December 2018, a total of 120,389 HIV infections were notified, 43,072 of them receiving treatment. By the same date, the HIV Prevention and Control Office (DPVIH/MINSA) had a registry of 1,338 Venezuelan citizens receiving HIV treatment, 90% in the Lima/Callao area. A local activist organization in Peru (Asociación Illary) that reports HIV data to the Ministry of Health documented 16 deaths of Venezuelan migrants associated with interrupted treatment of advanced HIV disease in

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59 Ministry of Health of Guyana, unpublished report.
62 Ministry of Health of Peru.
63 Sala situacional para el Análisis de Situación de Salud - SE 22-2019.
64 Boletín Epidemiologico Regional. SE 52_2018_Gob Regional Tumbes.
health facilities in the country.\textsuperscript{66} A nutritional needs assessment conducted in March 2019 by health partners within the framework of the Regional platform for Inter-agency coordination for Venezuelan migrants and refugees (R4V) reported that among the children under 5 years old who entered Peru through the binational centers for border health care services (Centros Binacionales de Atención en Frontera—CEBAF), 3% were acutely malnourished, 18 per cent had chronic malnutrition, and 25 per cent had anemia.\textsuperscript{67}

37. **Trinidad and Tobago** has reported no confirmed measles or diphtheria cases. However, the Ministry of Health reported an increase in imported malaria cases from Venezuela. In 2019, as of 31 May, there were 17 malaria cases (one from Ghana, one from Guyana, one from Uganda, 13 from Venezuela, and one local case). Between 2006 and 2017, an average of 15 cases were reported each year. Twelve cases were confirmed in 2017 (eight from Venezuela, one from Guyana, one from India, and two from Nigeria) and 40 in 2018 (38 imported cases: 33 from Venezuela, four from Guyana, and one from Ghana).\textsuperscript{68} In 2018, the Ministry of Health reported that there was no malaria outbreak in Trinidad and Tobago, indicating that the majority of confirmed cases in Trinidad and Tobago were imported from neighboring countries.\textsuperscript{69}

38. The **indigenous populations** living in border areas of Venezuela are highly vulnerable to epidemic-prone diseases. Of special concern are the Warao people living in border areas between Venezuela and Guyana, who are now migrating to northern Brazil; the Wayu people, living in the border areas between Venezuela and Colombia; and the Yanomami people, living in remote locations along the border between Venezuela and Brazil.\textsuperscript{70,71} One of the highest HIV prevalence rates in indigenous populations in the Region of the Americas is among the Warao in Venezuela (9.5%).\textsuperscript{72} This population also has among the highest levels of tuberculosis. In 2017-2019, a total of 513 measles cases were reported in indigenous communities in Venezuela, 62% of them in the state of Delta Amacuro, among the Warao ethnic group. In 2019, as of 17 May, 183 suspected measles


\textsuperscript{68} Trinidad and Tobago, Ministry of Health, unpublished data.


cases were reported among indigenous populations in Brazil, of which 145 were confirmed in Roraima state and two (both fatal) in Pará state. The majority of confirmed cases in Roraima are in the Auaris indigenous health district, which borders Venezuela.73

Response of the Pan American Sanitary Bureau

39. In response to the evolving situation in Venezuela, PASB has been involved in intensified technical cooperation with the Ministry of Health, international partners, and local NGOs to enhance health systems management; improve the prevention and control of communicable and noncommunicable diseases; improve emergency management; and purchase medicines, vaccines, laboratory reagents, and other supplies for health programs, both directly and through PAHO’s Regional Revolving Fund for Strategic Public Health Supplies (Strategic Fund)74 and the Revolving Fund for Vaccine Procurement (Revolving Fund).75 To maximize this technical cooperation, since December 2017, it has been underpinned by: an active incident management system at headquarters level and in the PAHO/WHO Representative Offices in Brazil, Colombia, Ecuador, Peru, and Venezuela; the release of funds from the PAHO Emergency Disaster Fund and the PAHO Epidemic Emergency Fund; the activation of special internal administrative procedures to facilitate fast and agile technical cooperation with the targeted countries; and enhanced partnerships and resource mobilization.

40. PASB has received financial contributions from the following partners to support its technical cooperation agenda in Venezuela and neighboring member states: Canada, European Union, Japan, New Zealand, Switzerland, United States of America, Spain, The Global Fund to fight AIDS, Tuberculosis and Malaria, The Measles and Rubella Initiative, Task Force for Global Health, UN Central Emergency Fund, UN Foundation, Vaccine Ambassadors, and WHO Contingency Fund for Emergencies.

41. PASB has quickly scaled up its technical cooperation with Venezuela and neighboring countries. Targeting various public health issues, since November 2016 PASB has deployed multidisciplinary technical field missions, involving the mobilization of over 120 personnel. The in-country mission teams and the field offices include personnel with expertise spanning several technical areas: emergency management, entomology and vector control, surveillance, epidemiology, health and laboratory services, health services management, immunization, cold chain, infection prevention and control, antenatal care, maternal and neonatal health and post-abortion care, sexual and reproductive health, clinical management, public health, coordination and logistics, administration, and risk communication. In addition to its established presence on the ground through its Representative Offices, PASB has completed more than 100 technical cooperation

74 The PAHO Strategic Fund was created in 2000 by the Organization as a mechanism to improve equitable access to safe, efficacious, and quality medicines and supplies in the Americas.
75 The PAHO Revolving Fund provides countries and territories with guarantees of quality, safe, and adequate supplies of vaccines and related products, and lower prices.
missions at national and subnational levels to Venezuela, Colombia, Brazil, Guyana, Ecuador, and Peru.

42. PASB is supporting the Ministry of People’s Power for Health (MPPS) in the implementation of its National Rapid Response Plan to halt the measles and diphtheria outbreaks. The plan is aimed at interrupting transmission of these diseases and includes universal mass vaccination for children aged 6 months to 14 years, extensive contact tracing and associated laboratory work, underpinned by the mobilization of national, regional, and municipal rapid response teams. In addition to the rapid response plan, Venezuela, with support from PASB, is also implementing a national plan to increase vaccination coverage in indigenous communities, municipalities with low coverage, and difficult-to-reach areas. The vaccination campaign from April 2018 to May 2019 achieved 97% coverage for measles nationwide, with coverage above 95% for diphtheria in most states. According to MPPS data, as of 10 May 2019, 8.8 million people have been vaccinated against measles and 5.2 million against diphtheria.\textsuperscript{76} MPPS reported that during Vaccination Week in the Americas 2019, more than 381,000 children were immunized in Venezuela. Six types of vaccines to protect the population against 11 diseases were made available, 7,124 vaccination posts were in operation, and 231 indigenous communities received vaccination. These intensified activities are planned to continue until 30 June 2019.\textsuperscript{77}

43. To date, with PASB’s support, more than 13,000 health workers, including 4,811 vaccinators, have been trained in measles and diphtheria outbreak response in 23 states and the Capital District. Additionally, in collaboration with national and local immunization programs in the country, PASB has been facilitating the purchase of vaccines through the PAHO Revolving Fund, paid for primarily by Venezuela. The following supplies and vaccines have been purchased since 2017: pentavalent vaccine; inactivated polio vaccine (IPV) and oral polio vaccine (bOPV); diphtheria-tetanus (DT) vaccine for the immunization campaign; diphtheria antitoxin immunoglobulin; measles, mumps, and rubella (MMR) and measles-rubella (MR) vaccines; doses of yellow fever vaccine; and human tetanus immunoglobulin. In 2017, a combined total of these vaccines and associated syringes was procured in the amount of 33 million doses/units, which increased to 43 million doses/units in 2018. Already in 2019, 4 million doses/units have been procured and delivered to the country. To facilitate national immunization efforts and reach more communities nationwide, PASB also supported: the strengthening of the vaccine cold chain by acquiring additional supplies, including 36.7 million syringes and safety boxes, water packs, vaccine carriers, and cold boxes; strengthening of laboratory diagnosis capacity for diphtheria and measles diagnosis, including flocked swabs, cotton swabs, dry tubes, Amies transport medium, Remel M4RT transport medium, blood extraction syringes, kits for measles IgM/IgG, kits for rubella IgM/IgG, kits of primers/probes for RNA detection of measles and rubella, and five sets of primers for diphtheria diagnosis. Together with WHO

\textsuperscript{76} MPPS communication, 10 June 2019.
and the Measles and Rubella Initiative (MRI), PASB has also implemented alternative support mechanisms to ensure continued access to the MMR vaccine and to supplies for a nationwide mass campaign to interrupt measles transmission. Accordingly, during 2018 the MRI provided an additional 3.52 million doses of MR vaccine, 2.74 million syringes, and 26,000 safety boxes for the first phase of the measles outbreak response.

44. In support of the MPPS, PASB has deployed 54 international and national consultants to all states to strengthen the coordination capacity of the regional health directorates and support immunization related activities. Since May 2018, PASB has been supporting the monthly mobilization of between 19,000 and 31,00078 vaccinators to implement nationwide immunization activities. PASB has also facilitated the availability of vehicles for the vaccination brigades (regular fleet of approximately 60 vehicles and up to 100 at peak levels). In addition to the immunization efforts, PASB has implemented actions for outbreak prevention and control at the community level, through the provision of essential health kits for the management of measles and diphtheria to healthcare workers and community leaders. These supplies, complemented by training, have empowered communities as first responders for the early detection and control of suspected cases. Specialized training workshops were held at comprehensive diagnosis centers (CDIs) and reference hospitals on the clinical management of diphtheria and measles cases. To strengthen community awareness, 5,000 manuals on clinical epidemiological diphtheria management, 2,500 posters on pediatric clinical management of diphtheria, 2,500 posters on clinical management of diphtheria in adults, and epidemiological surveillance sheets for measles and diphtheria have been distributed to the regional health directorates in the prioritized states, CDIs, and reference hospitals. An online course on measles has been made available on the PAHO virtual campus and at the end of 2018, an on-site training on cell culture and viral isolation of poliovirus was provided to laboratory staff of the National Institute of Health.

45. PASB has been exploring alternative support mechanisms to ensure continuity in access to antiretroviral drugs (ARVs) and other essential medicines in Venezuela, along with key partners, other United Nations agencies, and specific civil society groups. The country participates in the PAHO Strategic Fund, which it has used to procure ARVs, TB medicines, and anti-malarials with its own funds. After a reduction in the level of procurement for Venezuela in 2016, PASB, in coordination with MPPS, increased its support for the procurement of high-priority medicines such as immunosuppressant drugs, medicines for maternal and child health care, medicines for high-prevalence chronic diseases, and reagents for diagnostics and blood. These medicines are provided to the health services network of both the MPPS and the Social Security Institute. PASB has also provided technical support in the rational selection of medicines to optimize available resources, and in the analysis of supply options for strategic public health supplies. In 2018, PASB supported the acquisition of US $2.1 million of essential medicines through the Strategic Fund, including immunosuppressive medicines, ARVs, antimalarials, antituberculosis medicines, insulin and other medicines used for diabetes, antihypertensives, 78 800 to 1,400 people a day, six days a week.
thyroid hormones, and rapid tests for diagnostics. However, a limited list of medicines was purchased and the volumes do not cover the current needs of the country's national health system.

46. PASB has also supported direct procurement of essential medicines and supplies for the country outside the PAHO Revolving Fund and the Strategic Fund. By the end of 2018, 80 Interagency Emergency Health Kits (IEHKs) were provided in order to benefit 800,000 patients in emergency services, and in communities. Other medicines and supplies were distributed including: 150,000 envelopes of oral rehydration salts; 16,000 ampoules of oxytocin postpartum treatment; 1,100 adrenaline treatments; 4,000 bottles trimethoprim/sulfamethoxazole treatments for children’s urinary and respiratory infections; 12,000 tablets of carbamazepine anxiolytic treatments; 800,000 mebendazole antiparasitic tablets; 500,000 metformin tablets for diabetes; 20,000 metronidazole antimicrobial tablets; 1,900 treatments against influenza; 28,000 tacrolimus immunosuppressants tablets; 500 liters of benzyl benzoate for scabies; among others.

47. In collaboration with MPPS, UNAIDS, civil society, and other partners, PASB led the development of a master plan to strengthen the response to HIV, TB, and malaria from a public health perspective. The plan was finalized in July 2018 and has been instrumental in defining priorities and facilitating the coordination of international technical cooperation with the actors involved in the response to HIV, TB, and malaria. Considering the ongoing stock-out of reagents for HIV viral load monitoring, PASB has mobilized technical support and resources to implement a population-based survey to estimate treatment response in people with HIV who have transitioned to the new dolutegravir-based regimens. Additionally, with support of partners and through the Strategic Fund, PASB supported the purchase of antiretrovirals (499,980 bottles of a fixed-dose combination of tenofovir, lamivudine, and dolutegravir—TLD), and first- and second-line anti-TB drugs, covering more than 80% of the estimated funding for anti-TB drug needs for the first year of the master plan. PASB has also facilitated the donation of two Gene Xpert machines with cartridges for rapid molecular diagnosis. Brazil also donated important quantities of antiretrovirals to Venezuela. There is ongoing coordination with MPPS and partners to address remaining gaps in the master plan.

48. Since April 2017, PASB has scaled up support to MPPS in order to strengthen services in high-priority level III and IV hospitals in major cities, including Caracas, in 18 states. Some 29 facilities are now being supported, up from the 25 targeted in April 2017. Activities include staff training on hospital safety and prevention of healthcare-associated infections, implementation of hardware and software for use of the Logistics Support System (SUMA/LSS) to manage health supplies, and evaluations of essential capabilities, including warehousing of supplies in these hospitals. In addition, 344 basic and complementary units of the IEHK, which provides medicines and medical devices for 10,000 people for approximately three months, have been distributed to 24 hospitals in 16 states (Amazonas, Anzoategui, Apure, Aragua, Bolivar, Carabobo, Delta Amacuro, 

Capital District, Lara, Merida, Miranda, Monagas, Sucre, Tachira, Vargas, and Zulia). Additionally, 600 IEHK supplementary modules of renewable material are presently being distributed and a further 200 IEHKs are pending distribution to the priority hospitals. Furthermore, 12 of the 24 hospitals in eight states (reference hospitals in Miranda, Vargas, Capital District, Bolivar, Anzoategui, Zulia, Tachira, and Apure) are receiving support to strengthen emergency room response capacities and are being provided with essential supplies and equipment, such as 20 noncommunicable disease (NCD) kits, 17 post-exposure profilaxis (PEP) kits, seven trauma kits, and four surgical supply kits, as well as on-site training in triage, patient flows, infection control, and emergency room management. Additionally, warehouses that supply these emergency rooms are being strengthened through the procurement of equipment and provision of training to improve safety and security conditions.

49. In coordination with MPPS, PASB has also been monitoring and reporting on the operational status of vital lines (water, electricity, medical gases, supplies and medicines, food and waste) and essential services (emergency, operating room, ICU, delivery room, x-ray, ultrasound, laboratory, sterilization, blood bank, morgue) in 48 hospitals in 21 states, on a regular basis through the mobile "collect tool". The available information from a sample of hospitals at the beginning of 2019 shows that some critical units operate intermittently (15% of emergency rooms, 28% of operating rooms, and 40% of intensive therapy units) and that there is a shortage of medicines commonly used in emergency rooms (50%) and operating rooms (35%). This situation is made worse by cuts in the water and energy supply in the country.81

50. PASB is also working with MPPS to strengthen the national primary health care network, prioritizing 25 comprehensive community health areas (ASICs), 25 comprehensive diagnostic centers, and 452 community health centers. Cuban medical cooperation has been present for many years in all these areas. With PASB’s support, equipment, medicines, and supplies have been provided and professionals from many states have been trained in essential methodologies to improve obstetric and other medical services, in the detection and treatment of mental health problems, and in the management of diphtheria and measles cases. Over 70 basic IEHKs have been delivered to address basic health care needs at the primary care level for approximately 700,000 people over three months. These were provided to five ASICs in Amazonas, Bolivar, Capital District, and Tachira, 12 MPPS institutions, and eight NGOs. Customized kits with basic health care supplies and equipment (thermometers, stethoscopes, tensiometer, basic medicines, and stationery) have also been provided to community leaders and comprehensive community doctors.

51. Since 2016, recognizing the challenges that malaria presents, PASB, in coordination with the Venezuelan government, has supported the purchase and/or donation of essential supplies for malaria treatment and control (antimalarial drugs, rapid diagnostic tests, and impregnated mosquito nets) as well as essential supplies and reagents to

strengthen diagnostic capabilities and supplies for the management of complicated malaria. Since 2017, PASB has supported the purchase and/or donation of 508,400 rapid diagnosis tests (RDT), 214,800 long-lasting impregnated nets (LLIN), 226,000 artesunate vials for the treatment of severe malaria cases, as well as various antimalarials for the treatment of uncomplicated malaria cases (121,751 treatments of Artemether + Lumefantrine, 5,771,700 tablets of chloroquine, 250,000 tablets of primaquine, and 9, 605,000 tablets of primaquine).

52. PASB has also provided priority guidelines, communication materials, tools, and training for health workers. Approximately 500 health care workers in Sucre, Bolivar, Anzoategui, Delta Amacuro, Monagas, Aragua, and Zulia states have been trained in case management of uncomplicated malaria and management of artesunate in severe malaria; 100 health workers have been trained in malaria detection and surveillance in Sucre and Delta Amacuro; and two workshops were held for certification of microscopists and training in quality assurance in microscopy. In 2018, PASB supported MPPS in finalizing and launching the Action Plan for the Malaria Control 2018-2021, and helped municipalities in Bolivar state (Callao, Sifontes, Heres, and Caroni) implement a plan for the prevention and management of malaria in pregnancy. PASB also provided technical support at the national and local levels for the organization and implementation of malaria control actions, including the distribution of 149,000 long-lasting insecticidal nets (LLINs) to the states with the highest malaria transmission rates (Bolivar, Sucre, Amazonas, and Anzoátegui) and for the development of projects and protocols for malaria surveillance and response. Support was also provided for information management, which has been enhanced with the standardization of epidemiological surveillance databases for malaria, and setting up of 10 situation rooms (7 located in the Regional Directorates of Amazonas, Apure, Bolivar, Capital District, Carabobo, Miranda, and Monagas; 1 located in the Vice-Ministry of Public Health Networks; 1 located in the General Directorate of Epidemiology; and 1 located in PAHO/WHO Country Office). PASB has also supported the strengthening of malaria surveillance actions in border areas in Brazil, Colombia, and Guyana.

53. PASB and Venezuela are collaborating on an integrated plan to prevent and control noncommunicable diseases, promote mental health, and prevent violence. Areas of action include increasing the multi-sector response to NCDs through: the creation of interinstitutional committees and plans for physical activity and alcohol reduction; greater access to essential medicines for the management of hypertension and diabetes; and increasing health workers’ ability to identify and manage people with mental health conditions. Data collection and monitoring are ongoing as part of the global survey on violence against children; and also for youth smoking, as part of the Global Youth Tobacco Survey. PASB is working with the National Nutrition Institute (INN) on a project to improve the detection and management of acute malnutrition in children who are receiving care in communities and in nutritional recovery centers around the country. Other health interventions are being coordinated with the immunization program, such as provision of vitamin A and antiparasitic agents to children under 5. PASB experts have also supported trainings and have helped update and develop tools and protocols to detect nutritional deficiencies, in order to strengthen the surveillance and management of malnourished children in communities and at the Education and Nutritional Recovery Services (SERNs).
in prioritized states. PASB is now procuring 220 kits for severe acute malnutrition with medical complications (SAM/MC) to be delivered to the 24 SERNs that support nutritional recovery at their corresponding reference hospitals in all states. These will be used to care for an estimated 11,000 children under 5 who suffer from severe malnutrition with medical complications. The kit includes antibiotics, antifungals, de-worming drugs, antimalarials, and anti-scabies medicine, and a rehydration mix to treat cases of severe acute malnutrition.

54. Since 2017, PASB has provided systematic support to MPPS to strengthen the management of potentially severe neonatal and maternal complications in the eight jurisdictions with the highest proportion of maternal deaths (Anzoátegui, Aragua, Bolivar, Carabobo, Lara, Miranda, and Zulia states, and the Capital District). PASB, in coordination with national and local health authorities, trained 695 health care workers and professionals in essential interventions to reduce severe maternal and neonatal morbidity and mortality. Through the PAHO Strategic Fund, PASB also supported the purchase of essential medicines, including 103,012 amoxicillin/clavulanic acid tablets, 100,000 doses of dexamethasone, 80,000 misoprostol tablets, 9,000 doses of hydralazine, and 200 vials of pulmonary surfactant, among others. Additionally, PASB, in coordination with MPPS, developed a plan to prioritize the systematic use of immediate postpartum family planning at the same time and location as facility-based childbirth care. “Training of trainers” methodology has been implemented, reaching 60 obstetricians in 27 hospitals in 13 states and increasing local capacities to provide safe postpartum and post-abortion care to vulnerable populations. In addition to this training, 146 women received safe and effective contraceptive methods following delivery or abortion procedures in six hospitals in Caracas. Since September 2018, PASB has been supporting MPPS in the implementation of a work plan to help reduce severe maternal and perinatal mortality and morbidity from a life-course perspective. The plan prioritizes actions in the eight states with highest maternal mortality, which together account for 70.9% of the total maternal deaths reported in 2017: Anzoátegui, Aragua, Bolivar, Carabobo, Capital District, Lara, Miranda, and Zulia. It also includes Amazonas, Delta Amacuro, Sucre, Táchira, and Vargas states, which also reported a high proportion of maternal deaths. In total, PASB is helping MPPS reach 13 states with interventions to improve neonatal and maternal health, with an estimated direct beneficiary population of 190,200 women, approximately 3% of the population in childbearing age. To date, equipment including 12 UNFPA emergency sexual and reproductive health kits have been provided to prioritized hospitals and maternity rooms, enough to care for approximately 180,000 people for three months.

55. In response to the ongoing water shortages since early 2019, PASB has procured 4.1 million aquatabs to treat 111,760,000 liters of drinking water. Just under 60,000 of these are in storage for emerging needs, while the remainder were distributed to hospitals in Anzoátegui, Apure, Bolívar, Táchira, and Delta Amacuro. PASB also procured 4,000 jerry cans, seven small generators, and two 5,000-liter bladder tanks. In response to floods that affected an estimated 35,000 people in 111 municipalities (mainly in Amazonas, Bolívar, Apure, and Delta Amacuro) in 2018, PASB supported the provision of drugs and medical supplies in Amazonas and Bolívar to treat emergency-related health conditions. PASB is presently completing steps to distribute 90,000 aquatabs in Bolívar to ensure access to safe water for three weeks for nearly 6,000 people living in shelters.
56. PASB has also provided support in neighboring countries (Brazil, Chile, Colombia, Ecuador, Guyana, Peru, and Trinidad and Tobago) and has established field offices in border areas and/or deployed additional personnel there. Activities are aimed at strengthening health system response in border areas, vaccination, and epidemiological surveillance at the local and national levels to detect and respond effectively to the needs of Venezuelan migrants and the host population.

57. In Brazil, PASB is providing ongoing support to national and local authorities for the control of immuno-preventable diseases, including activities to contain the measles outbreak in affected states. Residents and Venezuelan migrants from 6 months to 49 years of age, mainly children under 15, have been vaccinated against measles. PASB has provided technical cooperation to strengthen vaccination activities, including support for implementation of the action plan for measles outbreak control in Boa Vista (Roraima) until measles was interrupted there; establishment of a vaccination post in Pacaraima (Roraima), on the border with Venezuela, which operated continuously 10 hours a day, seven days a week until it was transferred to the Brazilian Army in August 2018 under “Operation Welcome”; and training for representatives of all states on preparedness for a rapid response to measles outbreaks. As of 18 July 2018, 71,675 vaccines from the national vaccination program were administered to 127,875 Venezuelan migrants. Until April 2019, when the Brazilian Army took charge of all immunization activities in Roraima, following re-establishment of endemic measles transmission, PASB provided support to improve case management and investigation through the implementation of infection prevention and control (IPC) protocols, isolation rooms, hospital screening, contact tracing, training of health professionals, active institutional and community research, and laboratory capacity-building, among other activities. A situation room was established with the support of PASB to coordinate measles response and monitoring at the state level. One of PASB’s main areas of technical cooperation in Brazil for the remainder of 2019 will be focused on strengthening local capacities in mental health and psychosocial support for Venezuelan migrants in Boa Vista. PASB is also helping the country develop a national action plan for the sustainability of measles and rubella elimination.

58. In Chile, PASB has supported the Ministry of Health in strengthening capacities for rapid detection and reporting of cases in the country. PASB has also provided technical support to the Ministry of Health to train epidemiological field teams within the framework of the International Health Regulations (IHR). Currently, PASB is supporting the Ministry of Health in the development of the National Plan for Migrants’ Health, aimed at ensuring a comprehensive health response based on their specific needs.

59. In Colombia, PASB is working with health authorities and partners to strengthen capacities at entry points in Norte de Santander, Cartagena, Barranquilla, La Guajira, Arauca, Nariño, and Vichada for immediate care and for immunization, detection, and follow-up of measles contacts, active case-finding in institutions and in the community, and vaccination of susceptible persons. From January 2017 to April 2019, Colombia
administered 1,067,469\textsuperscript{82} vaccines from the national vaccination program to 426,987\textsuperscript{83} registered Venezuelan migrants. In addition, 4,465 migrants received mental health care in La Guajira, Norte de Santander, and Vichada, through coordinated efforts by the local health system and PASB. PASB has also supported national and local authorities in: a) training health care workers for rapid response to imported measles cases, case management (including complicated malaria), effective vaccination strategies, nutritional screening of children under 5 years old, and management of the LSS/SUMA logistics system for supply management; b) stepping up epidemiological surveillance and health information reporting; c) strengthening diagnostic capacity by acquiring reagents for the National Health Institute and providing a virologist for expert support to the measles screening process (supporting the transportation of biologicals, as well as purchasing malaria rapid tests for health institutions); d) facilitating the establishment of vaccination posts in the departments of Arauca, La Guajira, and Norte de Santander, and supporting a surge in human resource capacity through the hiring of 200 vaccinators in Cartagena (70), Barranquilla (30), La Guajira (70) and Norte de Santander (30), to combat the measles outbreak; e) implementation of hospital contingency plans; f) coordination of binational actions with Ecuador to develop joint actions to strengthen the response capacity of health services, improve health information system, share best practices and lesson learned, and promote regional and local strategic partnerships to improve the healthcare among Venezuelan migrants; and g) increasing the health care delivery capacity of local health institutions through the provision of basic emergency health kits, kits for obstetric emergencies, nutrient supplements, personal protection equipment, and communications equipment (180 PEP kits and 53 basic medicine kits were procured and distributed to 28 local health institutions in La Guajira, Norte de Santander, and Arauca; 80 nutritional supplement packs were delivered in La Guajira and Norte de Santander to improve the nutritional condition of children at risk, including malnourished Yupka indigenous children; and 74 kits for emergency delivery and obstetrics, and supplies and equipment for the pediatric emergency rooms were provided to the hospitals in the departments of La Guajira, Arauca, and Norte de Santander). Working with partners, PASB is also providing support for extra-institutional health care delivery (such as mobile health units and the distribution of personal and family protection kits to reduce health risks), thus improving the capacity for immediate response and expanded services through the delivery of supplies and medicines to prioritized public health institutions. In this regard, as of April 2019, one mobile unit and three fixed care units were operating in Arauca to provide direct clinical care to 3,740 people, dental care to 126 people, and sexual and reproductive healthcare to 101 women.

60. In Ecuador, PASB has provided ongoing support to national counterparts to strengthen control and response for emerging and reemerging diseases, including measles, malaria, and diphtheria, within the IHR framework, and to ensure timely access to health services. PASB is working closely with the Ministry of Health on initiatives to improve epidemiological surveillance and field investigation, vaccination coverage, water and

\textsuperscript{82} Expanded Programme on Immunization (PAI), Ministry of Health and Social Protection, Reports by Vaccinators stationed along border areas, April 2019.

\textsuperscript{83} Estimates by PAHO based on PAI data of April 2019.
sanitation, and basic health care access for migrant populations, with emphasis on priority care for children under 5 years of age, pregnant women, elderly people, people with disabilities, and indigenous populations in the border area with Colombia. Capacity to deliver health care in the migration corridor along the northern and southern borders of the country (Rumichaca, San Miguel, Mira, Mascarilla, El Chaco, Ambato, Riobamba, and Huaquillas) has been enhanced with PASB’s support, including: providing experts for vaccination activities; procuring essential medicines and medical supplies, renewable supplies, and personal protection equipment for health personnel; conducting training activities, including on rapid response to imported measles cases, in order to activate rapid response teams at different levels of the health system and provide onsite technical assistance to nine health areas; providing rapid training on mental health and psychosocial first response for 120 healthcare workers in the cities of Tulcan, Huaquillas, Ibarra, and Ambato, as well as training for health care workers in the management of obstetric and neonatal emergencies, and training on water quality monitoring to improve the capacity of local government staff and water service providers in the provinces and border areas. Thanks to the support of PASB and partners, in coordination with national authorities, between August 2018 and March 2019, 89,320 migrants under 15 years of age were screened for their vaccination status and 26,050 were vaccinated, while an additional 22,078 migrants received healthcare services in PASB-supported facilities that provided medicines and essential health supplies.

In Peru, PASB has been providing ongoing technical support to national counterparts to strengthen epidemiological field investigation and respond to local and imported measles cases. This includes mobilization of national experts to support an ongoing follow-up vaccination campaign aimed at vaccination for all children aged 1 to 10 years, at the national level. PAHO is an active member of the interagency group for migrants and refugees (Grupo de trabajo sobre personas refugiadas y migrantes, GTRM) and is supporting Ministry of Health resource mobilization efforts to enhance the surge capacity of health services, particularly in the areas with the greatest influx of migrants. To ensuring an uninterrupted continuum of care and support for the most at-risk populations, in coordination with the Health Directorate of Junin, PASB has coordinated the health sector response in the locations with transiting migrants, through joint operations with UNHCR and the Peruvian Red Cross. PASB also supported the procurement and distribution of essential medical supplies and equipment for the Sagaro Regional Hospital emergency rooms (clinical beds, multi-parameter patient monitors for the intensive care unit, stethoscopes, oximeters, tensiometers, and renewable supplies), and laboratory supplies and reagents to improve epidemiological surveillance in the reference laboratories of Tumbes and Iquitos. PASB mobilized a pediatric specialist to meet the high demand for maternal and child care, as well as a nurse to support healthcare in the emergency rooms and maintain triage and clinical records in the hospital. It also deployed personnel to provide 24-hour vaccination service at the point of entry in Tumbes (CEBAF), procured and delivered additional cold chain equipment to CEBAF, and conducted a national workshop on rapid response to imported measles case. It trained 96 members of the rapid response teams in Tumbes (22), Piura (10), Iquitos (43), and the tri-national border region shared by Peru, Colombia and Brazil (21) on early detection and response to outbreaks within the framework of the IHR; deployed an expert to support health authorities in
Tumbes with the development of the regional health sector plan for outbreak response; and conducted an inter-agency training on coordination and response in Tumbes. Thanks to the support of PASB and partners, in coordination with the national authorities, between August 2018 and March 2019, 133,999 adults and 2,882 children from Venezuela were vaccinated, and between May 2018 and March 2019, 12,366 medical consultations were provided to at-risk populations at the CEBAF-National Red Cross health post.\textsuperscript{84} Between January 2018 and February 2019, health facilities in Tumbes reported providing 44,893 medical consultations to Venezuelans.

62. In Guyana, PASB has been working closely with the Ministry of Public Health to monitor the condition of migrants and strengthen epidemiological surveillance, information management, detection, verification, and risk assessments of events related to epidemic-prone diseases. This includes support for a syndromic surveillance system for acute respiratory illness, rash and fever, and undifferentiated fever in Regions 1 and 7. PASB experts are also working with national authorities to conduct risk communication activities, assess immunization coverage and laboratory capacities to identify potential health needs in areas with migrants, and strengthen the immunization program, which includes vaccinating migrants on arrival. There is also coordination with the Civil Defense Commission, the Ministry of Citizenship, and other ministries and organizations to ensure that foreign nationals are vaccinated with the required vaccines and basic needs are addressed. PASB has also been providing support for malaria outbreak response in Kaika, an area along the border with Venezuela.

63. Since the start of 2019, PASB has supported Trinidad and Tobago with the purchase of antimalarial medicines and is presently procuring 500 malaria rapid diagnosis test kits for the country. Since 2018, concerted technical support has been provided to strengthen the Expanded Program on Immunization (EPI) in light of potential risk of introduction of measles, including support for planning an upcoming measles vaccination campaign. Training is also being provided on case detection of vaccine-preventable diseases, particularly those not commonly seen in the country, such as measles.

64. In compliance with the International Health Regulations, PASB has disseminated daily reports on potential public health emergencies of international concern, as well as monthly updated epidemiological reports and alerts to Member States on diphtheria and measles.\textsuperscript{85} These have included notifications of the increased number of cases in Venezuela and recommendations to: \textit{a}) implement a high-quality surveillance system sensitive enough to provide timely detection of any suspected cases; and \textit{b}) prevent the introduction and spread of measles and diphtheria through the vaccination of susceptible populations.

65. According to criteria included in the regional measles elimination plan, if transmission persists for 12 months or longer in a given geographic area, endemic

\textsuperscript{84} Ministry of Health of Peru, Regional Health Directorate of Tumbes.

transmission is reestablished. Thus, endemic transmission of measles has been reestablished in Brazil and Venezuela, but the other 33 PAHO Member States maintain their elimination status.  

**Actions Necessary to Improve the Situation**

66. The following short-term and medium-term interventions are recommended for implementation by Member States and PASB:

**Venezuela**

a) Continue implementation of the plan of action to stop transmission of measles and diphtheria.

b) Continue implementation of the Master Plan for strengthening the response to HIV, malaria, and TB from a public health perspective.

c) Increase quality and coverage of antenatal, intrapartum, and post-obstetric care. Improve emergency obstetric care, including availability of trained human resources, medicines, and technology.

d) Implement urgent actions to rationalize and mobilize existing resources to ensure the functionality of hospital services on a priority basis and address gaps in primary health care to respond to the immediate challenges. This may require contingency plans and interventions to ensure retention of the existing workforce, short-term measures to address gaps in human resources, and steps to increase the availability of essential medicines and supplies.

e) Improve essential public health functions, including surveillance and availability of health information within the context of the International Health Regulations.

f) Accelerate efforts to improve the integration of health services within the health system, based on the primary health care approach, to address current fragmentation and segmentation. This will be critical to improve efficiencies and build resilience.

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All countries

g) Invest in and prioritize general vaccination to reach at least 95% coverage in all municipalities and communities and address outbreaks of vaccine-preventable diseases.


i) Continue efforts to address the health needs of migrants in accordance with Resolution CD55.R13, adopted in 2016.91

j) Scale up activities for malaria surveillance and response in all affected countries, along with efforts to prevent reestablishment of transmission in malaria-free areas.

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k) Continue supporting Venezuela in response to the current health situation, particularly regarding control of measles, diphtheria, and malaria outbreaks.

l) Support all Member States to:
   i. Strengthen health surveillance, information management, and monitoring
   ii. Improve access to health services for migrants and the host population
   iii. Improve communication and exchange of information to counter xenophobia, stigma, and discrimination
   iv. Strengthen partnerships, networks, and multi-country frameworks to understand the status and promote and protect the health of migrants
   v. Adapt policies, programs, and legal frameworks to promote and protect the health and well-being of migrants

Action by the Executive Committee

67. The Executive Committee is invited to take note of this report and provide any comments it deems pertinent.

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