Complex Humanitarian Health Crisis: Venezuela in Emergency

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Venezuela

Humanitarian and Economic Crisis
Venezuela 2014-2018
Humanitarian and Economic Crisis

Severe economic crisis precipitated by political and economic mismanagement and a significant reduction in oil revenue

Price of oil during 1999-2013

Total income of Venezuela 2000-2013 $700,000,000,000

Courtesy: Dr. Alejandro Rísquez
Production slow down since 2000 was compensated with a huge external public debt with an eventual collapse of the economy.

Courtesy: Douglas Barrios and Miguel Angel Santos
Monthly inflation rate increase in Venezuela during 2017-2018

Hyperinflation 45,000%

https://es.wikipedia.org/wiki/Hiperinflaci%C3%B3n_en_Venezuela
Increasing Poverty levels (%)

Pobreza por Nivel de Ingreso
Línea de Pobreza

Not poor | Poverty | Extreme Poverty | Total Poverty
---------|---------|----------------|--------------
51.6     | 48.4    |                |              
27.0     | 23.1    |                |              
18.2     | 10.8    |                |              
8.6      | 7.5     |                |              

2014 2015 2016 2017

Fuente: Encuesta Condiciones de Vida (ENCOVI) 2015. UCAB-USB-UCV. 2014 a 2017

Courtesy: Douglas Barrios and Miguel Angel Santos
COMPLEX EMERGENCY

- INCREASE INFORMAL ECONOMY
- INSECURITY VIOLENCE
- CRITICAL HEALTH SITUATION
- FOOD SHORTAGES
- POVERTY & INEQUALITY

(Courtesy: Dr José Felix Oletta)
Collapse of Health Sector

Once a regional leader of vector control and public health policies

- Reduction of 60% of health system between 2012-2017
- Hospital crisis, budget cuts, medicine/medical materials shortages
- Deteriorating public services (water/electricity supply deficit)
- Exodus of trained professionals (full medical professor earns <$10 dollars a month)
- No information from MoH (no reports since October 2014)
- Dismantling of surveillance and control programs
Overload of health centres

Close down of hospital areas due to lack of health personnel
Massive shortage of medicines
Venezuelan health system has been reduced by 20%

“Many doctors and nurses have abandoned the country.”

Director general of the World Health Organization (WHO), Tedros Adhanom Ghebreyesus, admitted during a Press conference two days ago

3 December 2018
Consequence...

Epidemics and Resurgence of diseases
Unprecedented increase in malnutrition
HIV/AIDS in Venezuela

Tuberculosis
10,952 new cases (2017)

79,000 without antiretroviral treatment since 2017

(Emergencia humanitaria compleja en Venezuela, reporte nacional. Sept 2018
https://cepaz.org.ve/documentos_informes/emergencia-humanitaria-compleja-en-venezuela/)

Fuente: MPPS. Programa Nacional de Control de Tuberculosis.
Epidemics and Increase in mosquito-borne diseases
Arboviruses

Viruses transmitted by arthropod* vectors

Dengue
Chikungunya
Zika

All transmitted by the same mosquito!

*Aedes aegypti

*Arthropod= invertebrate with segmented body. Ex. Insects, scorpions, spiders
Deteriorating public services → water storage

Mosquito breeding sites

Remember to Check for Aedes Mosquito Breeding IN YOUR HOME

Protect Your Loved Ones from DENGUE FEVER
Increasing dengue epidemics

(Trend: $r^2 = 0.27$, $t = 2.99$, $p < 0.05$, $N=26$ years)

Dengue related to
- Poverty
- Deteriorating public services $\rightarrow$ water storage
- Climate

(Vincenti-Gonzalez et al., 2018. Scientific Reports)
Ideal conditions for a Chikungunya (2014) and Zika (2016) epidemics in Venezuela

- Presence of vectors: *A. aegypti* and *A. albopictus* (Tijgermug)

- Naïve population

- Uncontrolled dengue epidemic

- Risk factors, poverty
- Deteriorated health system
CHIKUNGUNYA

Dengue epidemic

Outbreak Influenza A (H1N1)

1st CHIKV imported case

1st CHIKV authoctonous case

CHIKUNGUNYA EPIDEMIC
Cumulative excess cases: 1,392,000

Elaboración: José Félix Oletta L.
Havoc during chikungunya (2014) and Zika (2016) epidemics

- No information from MoH (no reports since October 2014)
- Misinformation, panic in the population
- Both epidemics rapidly spread through densely inhabited regions
  speed= 90m/day

(Lizarazo et al, submitted)
Havoc during chikungunya and Zika epidemics

- Academic organizations turned to alternative means of gathering data such as Twitter and Google Trends.
  - **Unpublished health reports** used by health agency ‘Red Defendamos la Epidemiología Nacional’ (REDN).
  - Estimates based on *excess fever cases* not explained by another cause:
    - **Chikungunya** >2 million cases
      > 57 times those reported officially
MALARIA

- Latin America made significant advances: 62% decrease in cases and mortality
- Except for Venezuela, the larger contributor to the malaria burden in the Americas
- Situation worsened in 2016-2017

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(World Malaria Report 2016, 2017)

In 2018, 1 million cases expected ~ 1500 deaths

1965% increase

29,887 cases (2000)

(Grillet, Tami et al. 2018. Accepted, Lancet Infectious Diseases; Adapted from PAHO data)
Venezuela, first WHO-certified country to eliminate malaria in most of its territory in 1961

Since 2014, malaria has spread to the rest of the country from the main hot spot

(Grillet, Tami et al. 2018. Accepted, Lancet Infectious Diseases)
Increase in illegal mining strongly linked to the socio-economic crisis

High migration of non-immune hosts (miners) to malaria Infection sites
(Pictures: J. Moreno)
Unprecedented Rise of Malaria in Venezuela

Severely ill people around the centers of diagnosis and treatment (Manoa, Bolívar state) without antimalarials

Courtesy: Dr. Oscar Noya, Caracas, Venezuela
Epidemics of vaccine-preventable diseases
Measles epidemic

- Since 2007, no measles cases had been reported
- Ten years later...measles has **re-emerged** in Venezuela, affecting mainly vulnerable indigenous populations

**Progressive interruption of vaccination** ➔ main cause


- Total de sospechosos 8,943
- Total de confirmados 6,370

**Up to November 2018:**
- ~9,000 cases reported
- 135 deaths (underestimate)


Data from PAHO and Venezuelan Ministry of Health, 2018
Measles epidemic

- Indigenous populations particularly affected
- 92% of deaths in these ethnic groups
- Especially Yanomami people

Data from PAHO and Venezuelan Ministry of Health, 2018; http://www.wataniba.org/el-sarampion-una-grave-amenaza-para-los-yanomami/
**Diphtheria**

Infection caused by the *Corynebacterium diphtheriae* bacterium

Spreads from human-to-human via droplets (sneezing, coughing)

**Symptoms:**
- Weakness, fever
- Sore throat
- Swollen glands in the neck
- “Pseudomembrane” (toxin)
Diphtheria epidemic in Venezuela

This disease had not been reported since 1992,

resurgence linked to progressive interruption of vaccination

• From 2016, the infection rapidly expanded with 2,170 cases and lethality rate of 22%

• 96% of diphtheria cases in the Americas originate from Venezuela

Data from PAHO and Venezuelan Ministry of Health, 2018. Graph: Dr José Felix Oletta
Venezuelan exodus...

A land of immigrants turns to emigration
Venezuela, a country that has traditionally been a generous host to thousands of refugees and third country nationals, now faces displacement...
UN sounds alarm as Venezuelan refugees and migrants passes three million mark

A family of Venezuelan children and their older Colombian-born relatives stand outside their wooden house in Barrio Camilo Daza in the city of Cúcuta, Colombia. Mother of four, Aide Caceres (far left) recently brought her children here because of the situation in Venezuela, but is unable to access health and education for them as they are undocumented Venezuelans.
Migrants and Asylum seekers

Asylum-seekers applications: >146,000

Asylum seekers applications have increased by >2,000% from 2014 to 2017.

Global Asylum Applications | 2014-17

- 2014: 4,040
- 2015: 10,168
- 2016: 34,183
- 2017: 94,284

Exodus and collapse of health system

>10,000 doctors emigrated
Exodus and spill-over of infectious diseases
Malaria

80% of cases in Brazil border municipalities are imported from Venezuela

(Grillet, Tami et al, accepted Lancet Inf Dis)
Measles epidemic spill-over to other countries

Casos confirmados de sarampión, notificados en 12 países del Continente.
2018, hasta la semana epidemiológica 46.

- Venezuela: 6370 (37.99%)
- Brasil: 9898 (55.71%)
- USA: 220
- Colombia: 171
- Chile: 2
- Canada: 27
- México: 5
- Argentina: 14
- Ecuador: 19
- Perú: 38
- Guatemala: 1
- Antigua y Barb: 1

Source: OPS. Actualización de sarampión, 30 de noviembre de 2018
Neighbouring countries and NGO’s praised for humanitarian response to Venezuelan migrants and refugees

Latin America and the Caribbean account for about 2.4 million refugees and migrants

CÁRITAS
DE VENEZUELA

Help from international agencies starts, but still slow…

- United Nations and partners have appealed for **US$220 million** to help Venezuelan migrants and refugees
  - The UN Central Emergency Response Fund (CERF) **allocated $17.2 million** earlier this year
  - UN office for humanitarian coordination (OCHA)
  - UN Refugee Agency (UNHCR) (Angelina Jolie)
  - International Organization for Migration (IOM)
  - UNICEF

Humanitarian response is mainly concentrated in refugees/migrants

Still difficult and slow to help **WITHIN** Venezuela

*(UNHCR Special Envoy Angelina Jolie in Peru, Oct 2018)*

Venezuelans have endured a decade of political, social, and economic upheaval that left a country in crisis.

Measles and other vaccine-preventable infectious diseases have returned.

Malaria represents a public health threat to the region.

Global and hemispheric health authorities should urge the Venezuelan government to allow a humanitarian channel to bring relief.

International intervention to halt the spread of diseases within Venezuela is a matter of urgency for the country and the region.
Venezuela
Humanitarian and Economic Crisis

QUESTIONS…