

Complex Humanitarian Health Crisis: Venezuela in Emergency

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Venezuela

Humanitarian and Economic Crisis

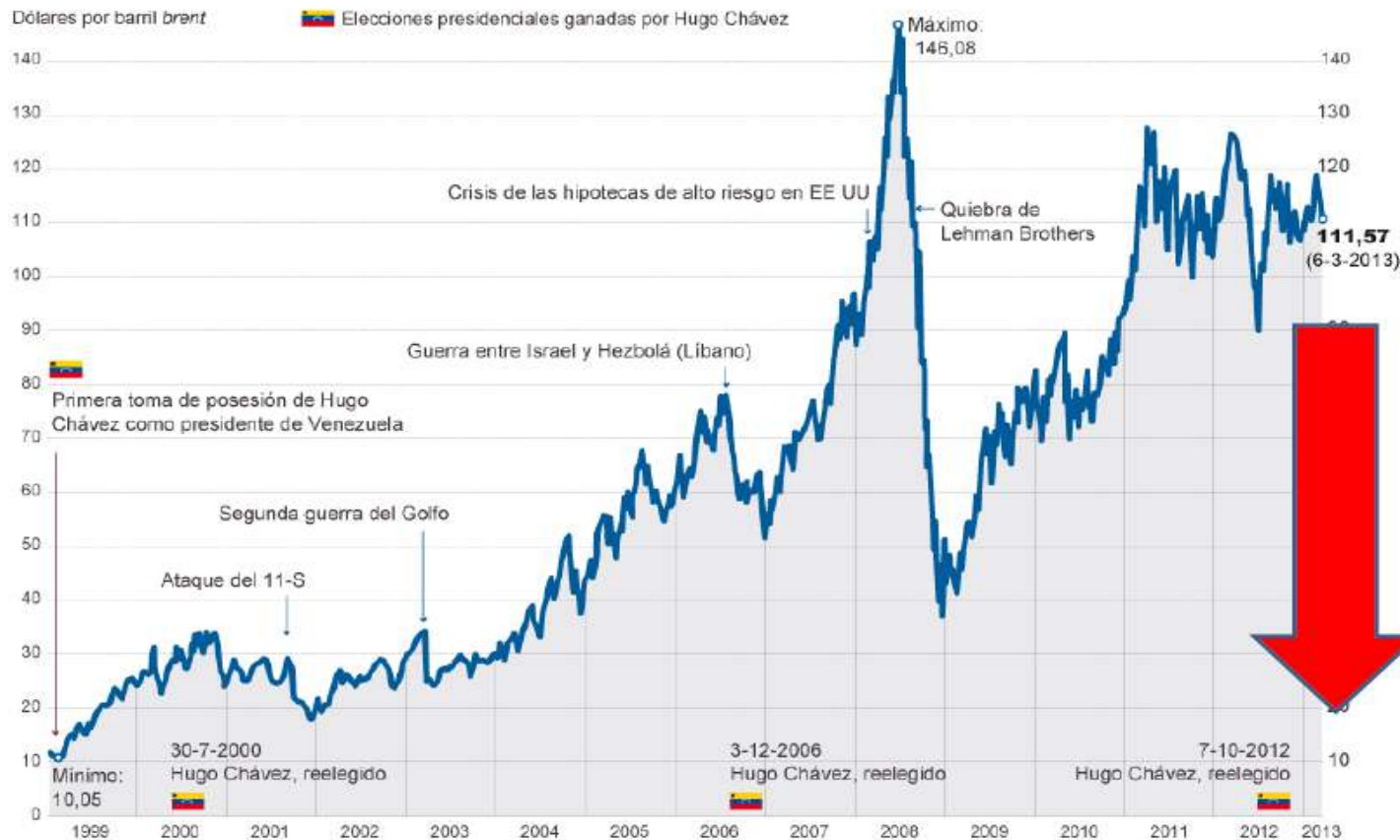


Venezuela 2014-2018

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



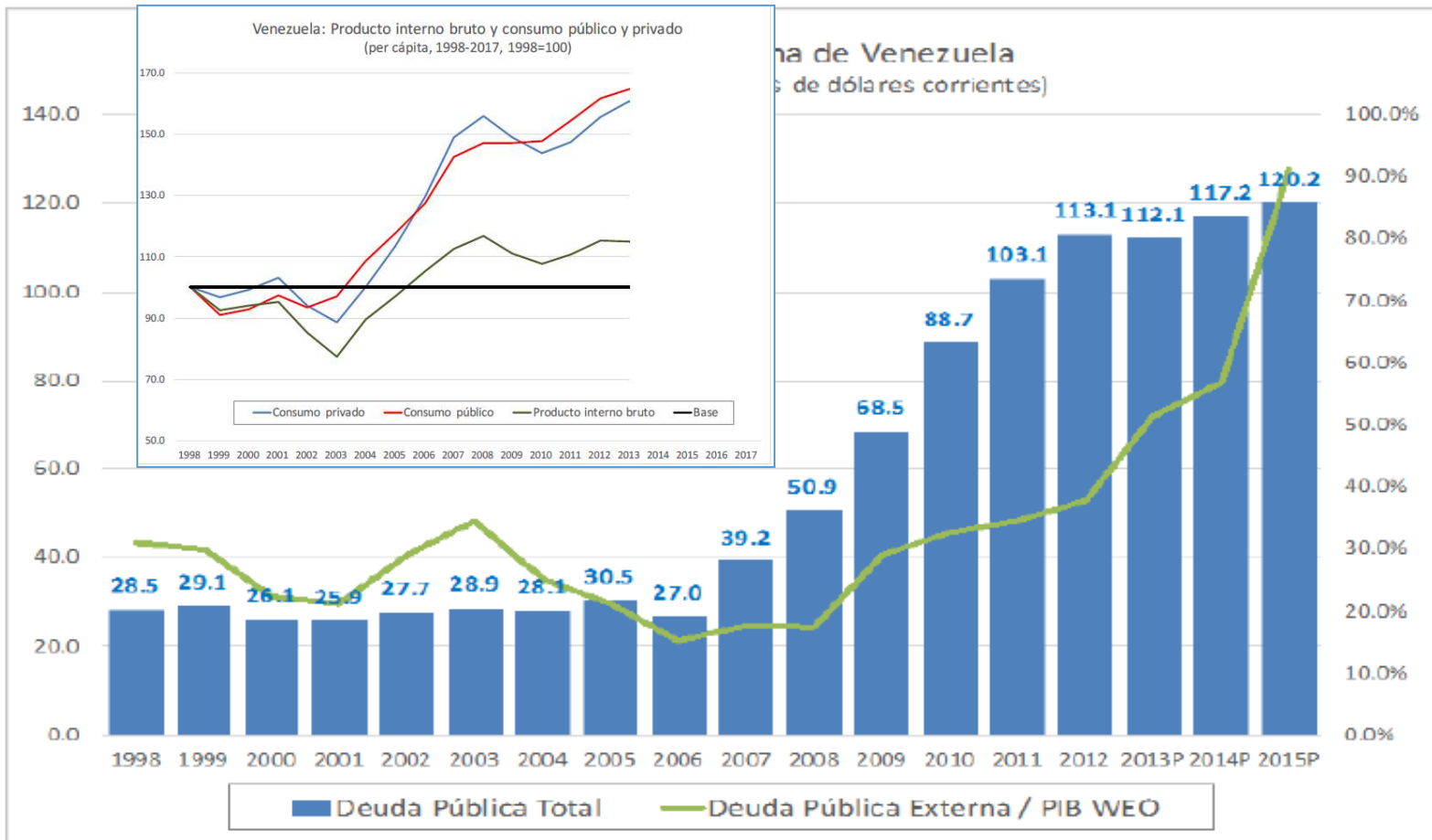
Total income of Venezuela 2000-2013 \$700,000,000,000



Courtesy: Dr. Alejandro Rísquez

Production slow down since 2000 was compensated with a
 huge external public debt
 with an eventual **collapse of the economy**

Thousands of millions dollars (x10⁹)

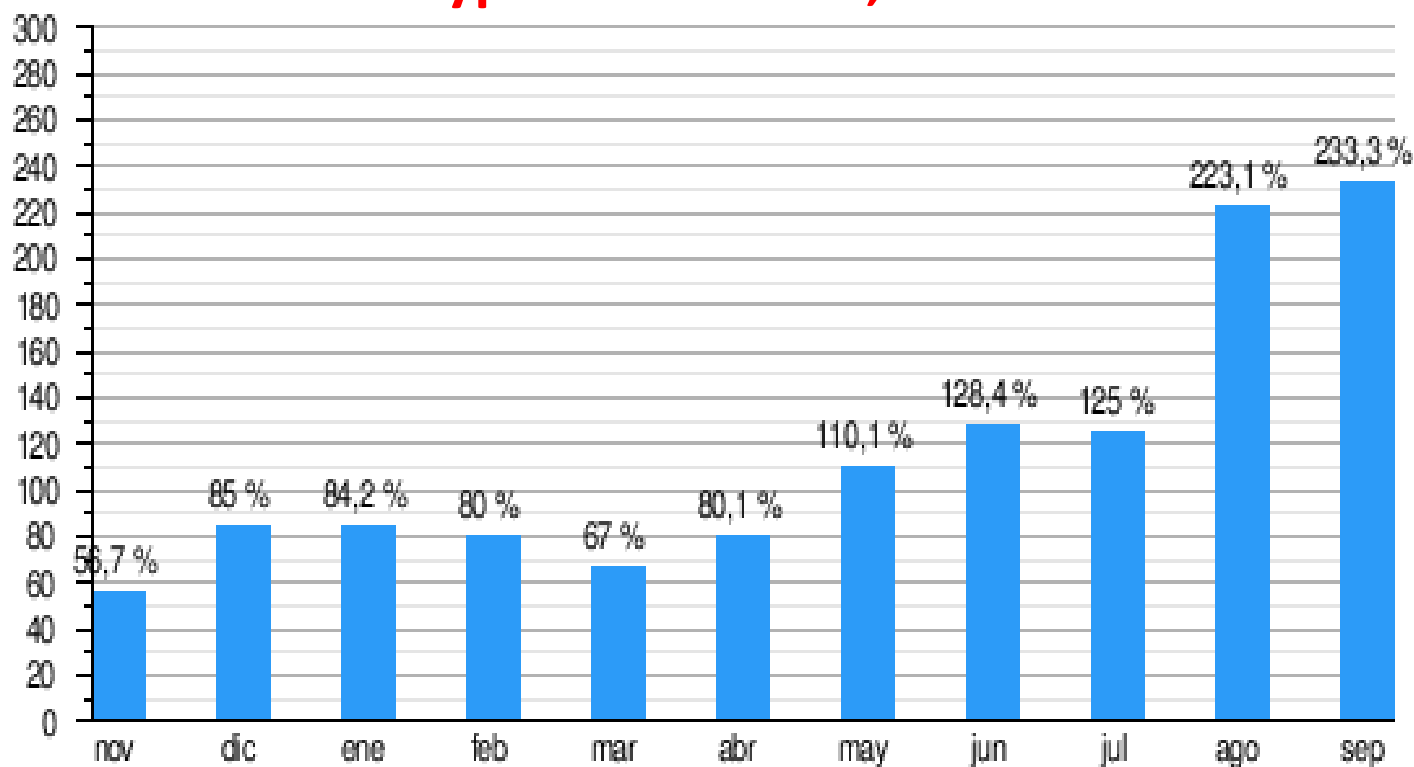


Fuente: PDVSA, WDI, Bloomberg, Oficina Nacional de Crédito Público, cálculos propios.

Courtesy: Douglas Barrios and Miguel Angel Santos

Monthly inflation rate increase in Venezuela during 2017-2018

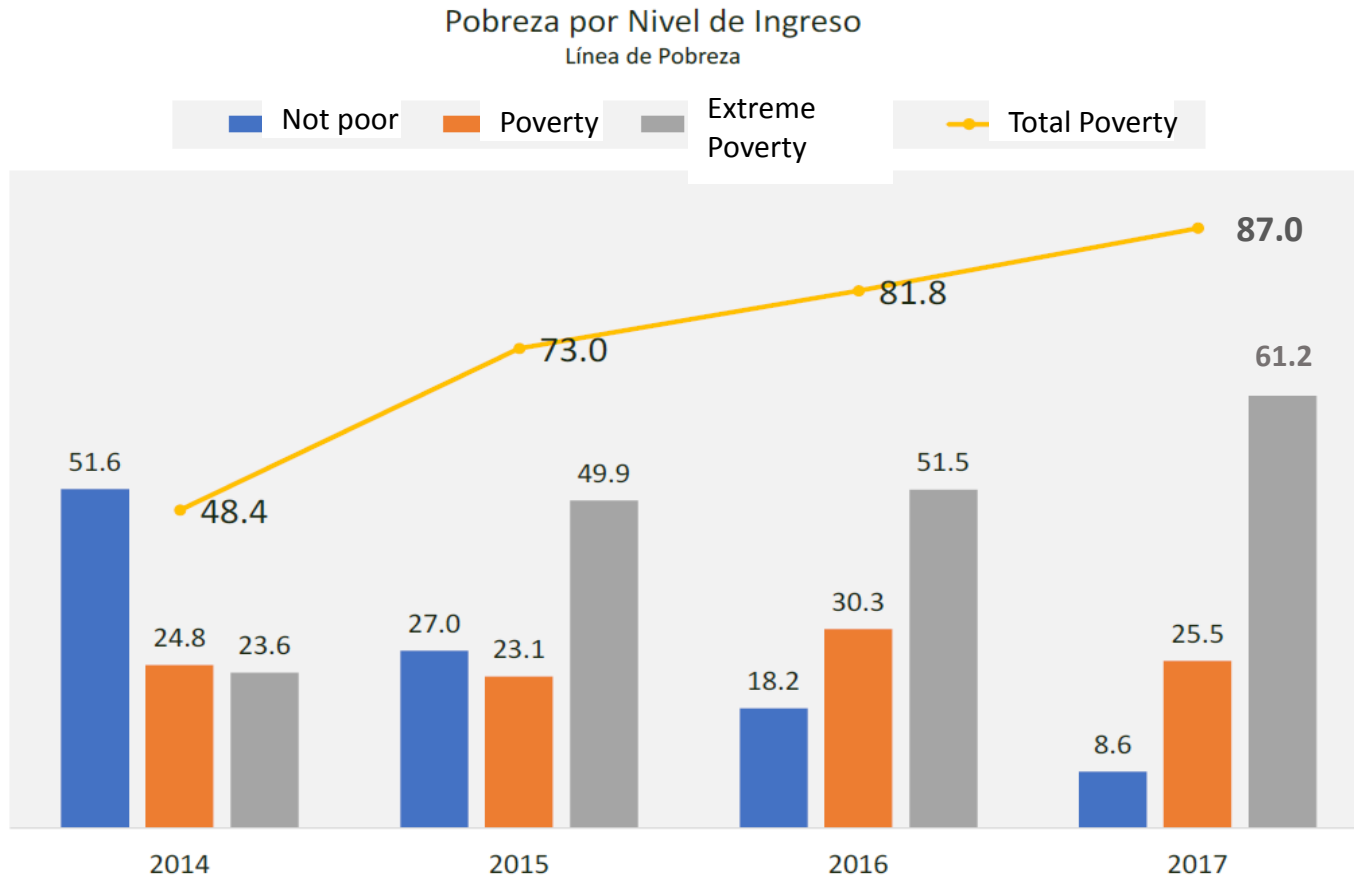
Hyperinflation 45,000%



(Comisión Permanente de Finanzas y Desarrollo Económico de la Asamblea Nacional

https://es.wikipedia.org/wiki/Hiperinflaci%C3%B3n_en_Venezuela

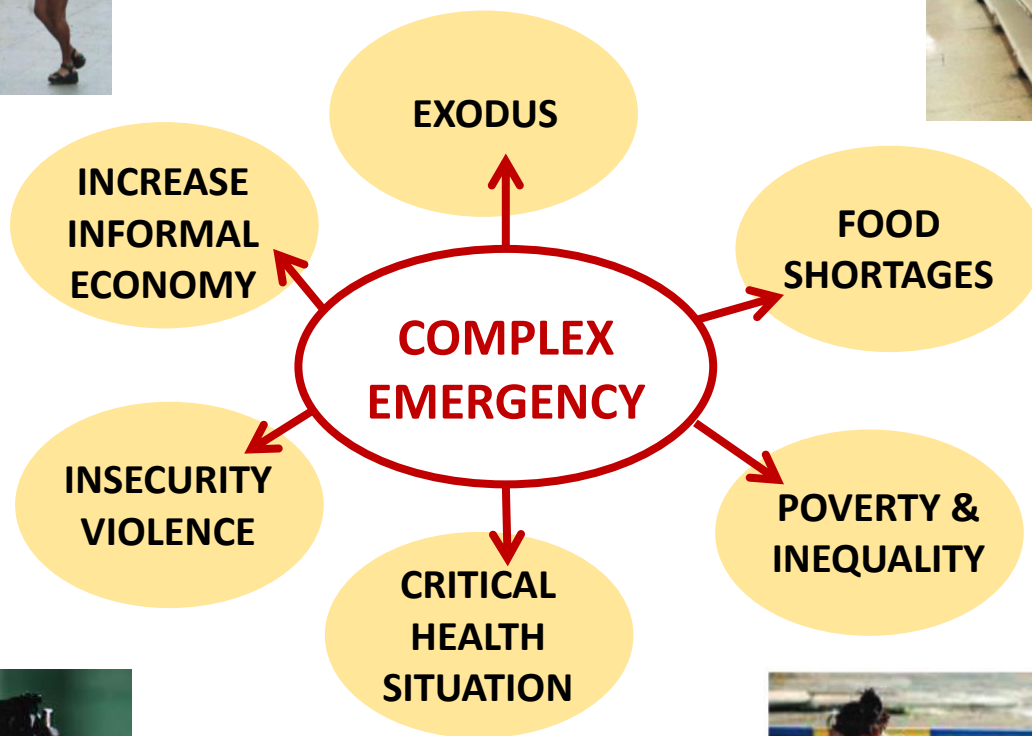
Increasing Poverty levels (%)



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

Courtesy: Douglas Barrios and Miguel Angel Santos





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

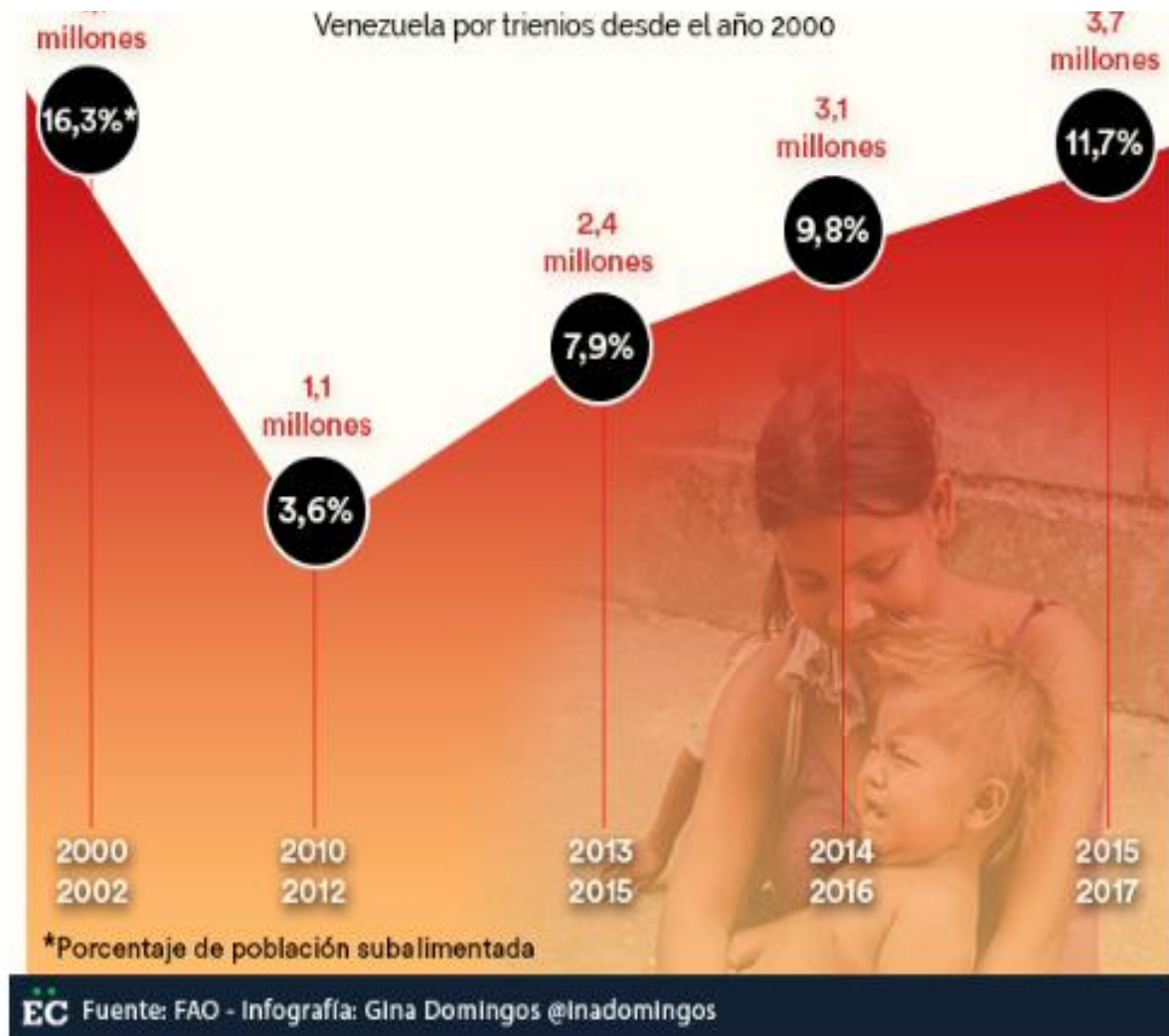
3 December 2018

Consequence...

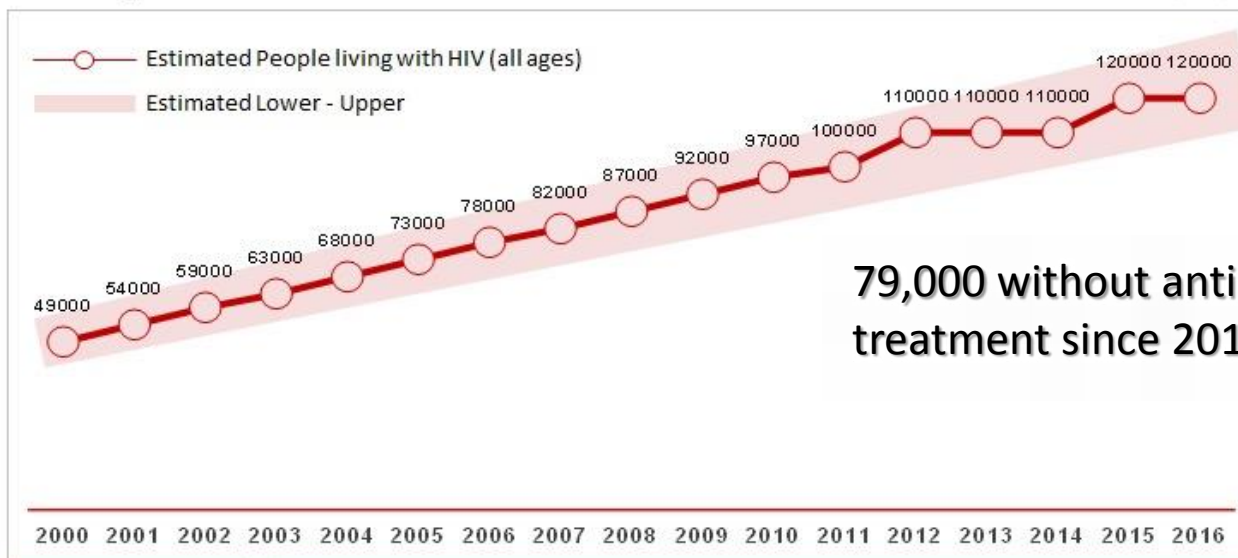
Epidemics and Resurgence of diseases



Unprecedented increase in malnutrition



HIV/AIDS in Venezuela

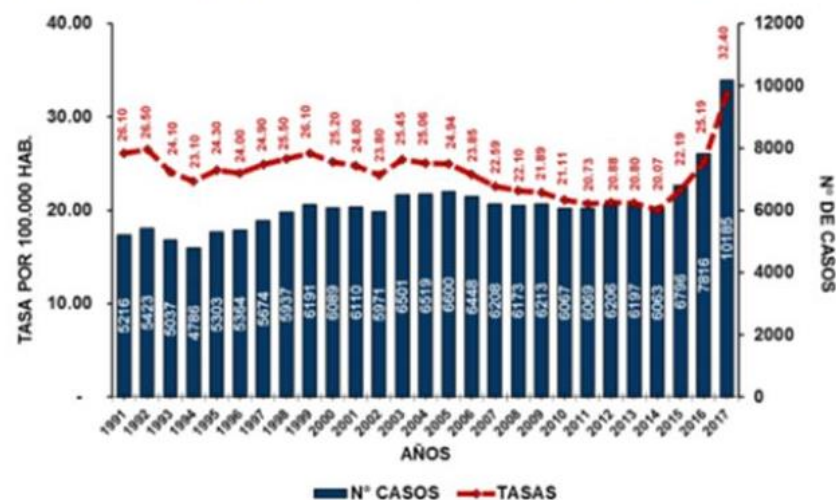


79,000 without antirretroviral treatment since 2017

Source: UNAIDS, Venezuela Country factsheets 2016
Dr. Leopoldo Villegas, International Health Advisor, ASODIS, Venezuela.

Tuberculosis
10.952 new cases (2017)

Figura 2 Incidencia notificada de Tuberculosis, Venezuela 1990 - 2017



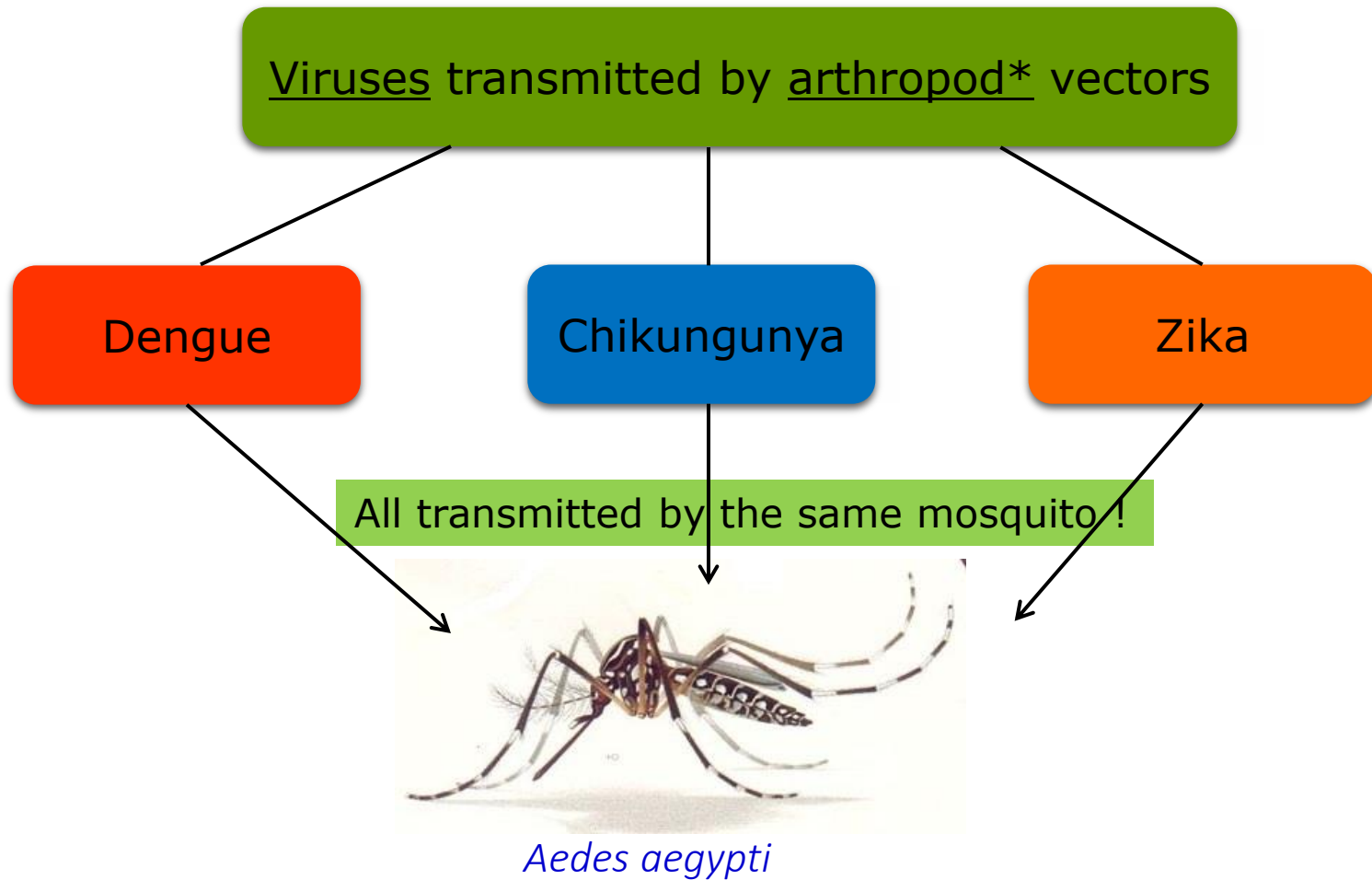
Fuente: MPPS. Programa Nacional de Control de Tuberculosis.

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

Epidemics and Increase in mosquito-borne diseases



Arboviruses

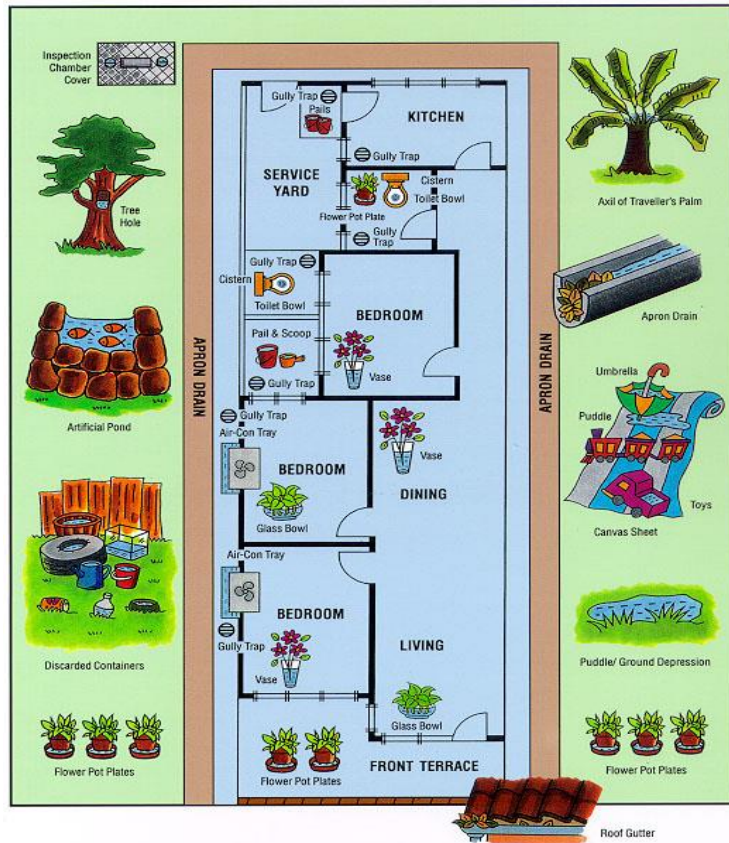


*Arthropod= invertebrate with segmented body. Ex. Insects, scorpions, spiders

Deteriorating public services → water storage

Mosquito breeding sites

Remember to Check for *Aedes Mosquito* Breeding
IN YOUR HOME

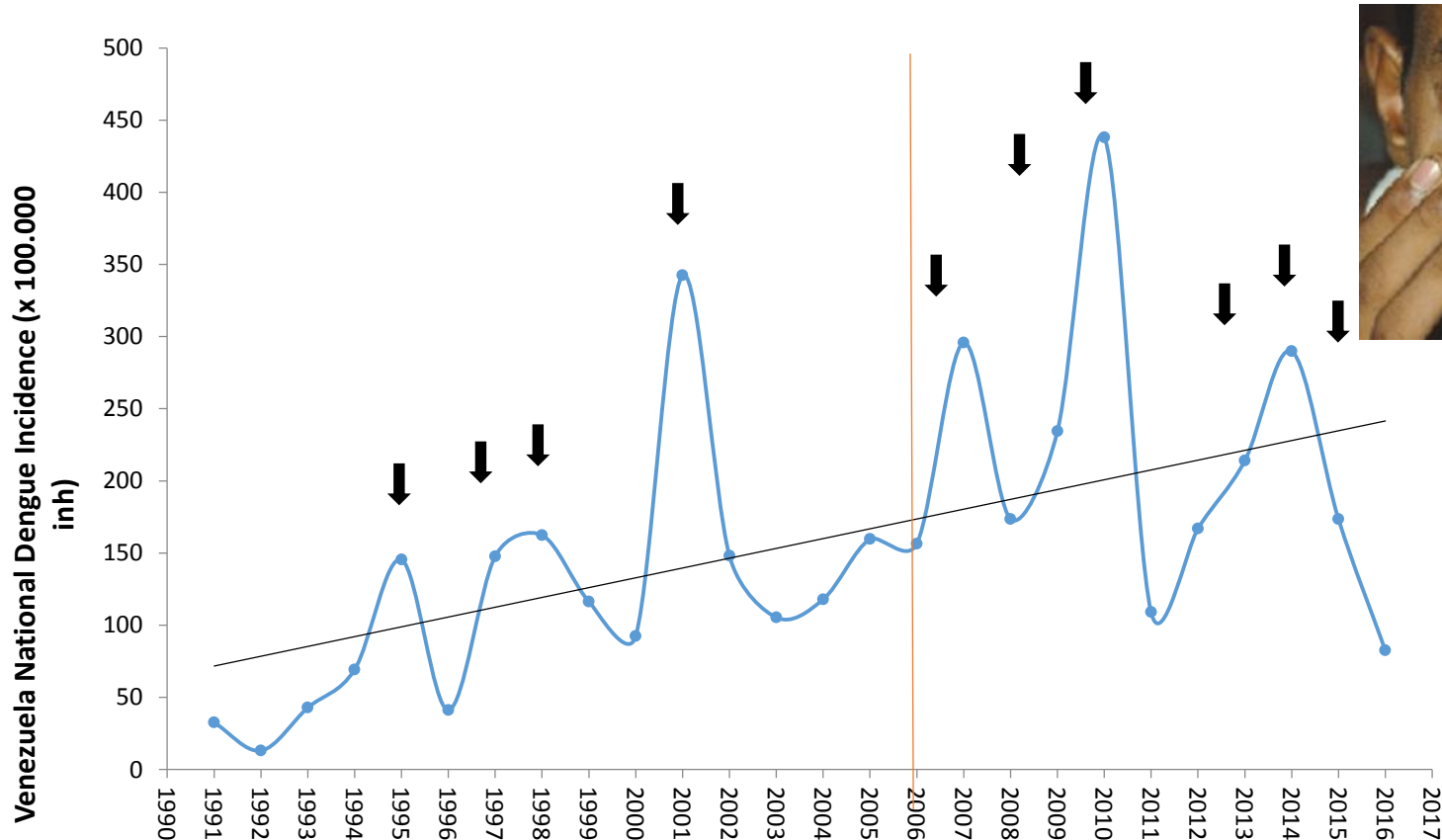


Protect Your Loved Ones from
DENGUE FEVER

Sure Smart
Shieldtox



Increasing dengue epidemics



Venezuela National dengue incidence between 1991-2016. Arrows indicate dengue epidemic years.
(Trend: $r^2 = 0.27$, $t = 2.99$, $p < 0.05$, $N = 26$ years)

Dengue related to

- Poverty
- Deteriorating public services → water storage
- Climate

(Vincenti-Gonzalez *et al.*, 2018. Scientific Reports)

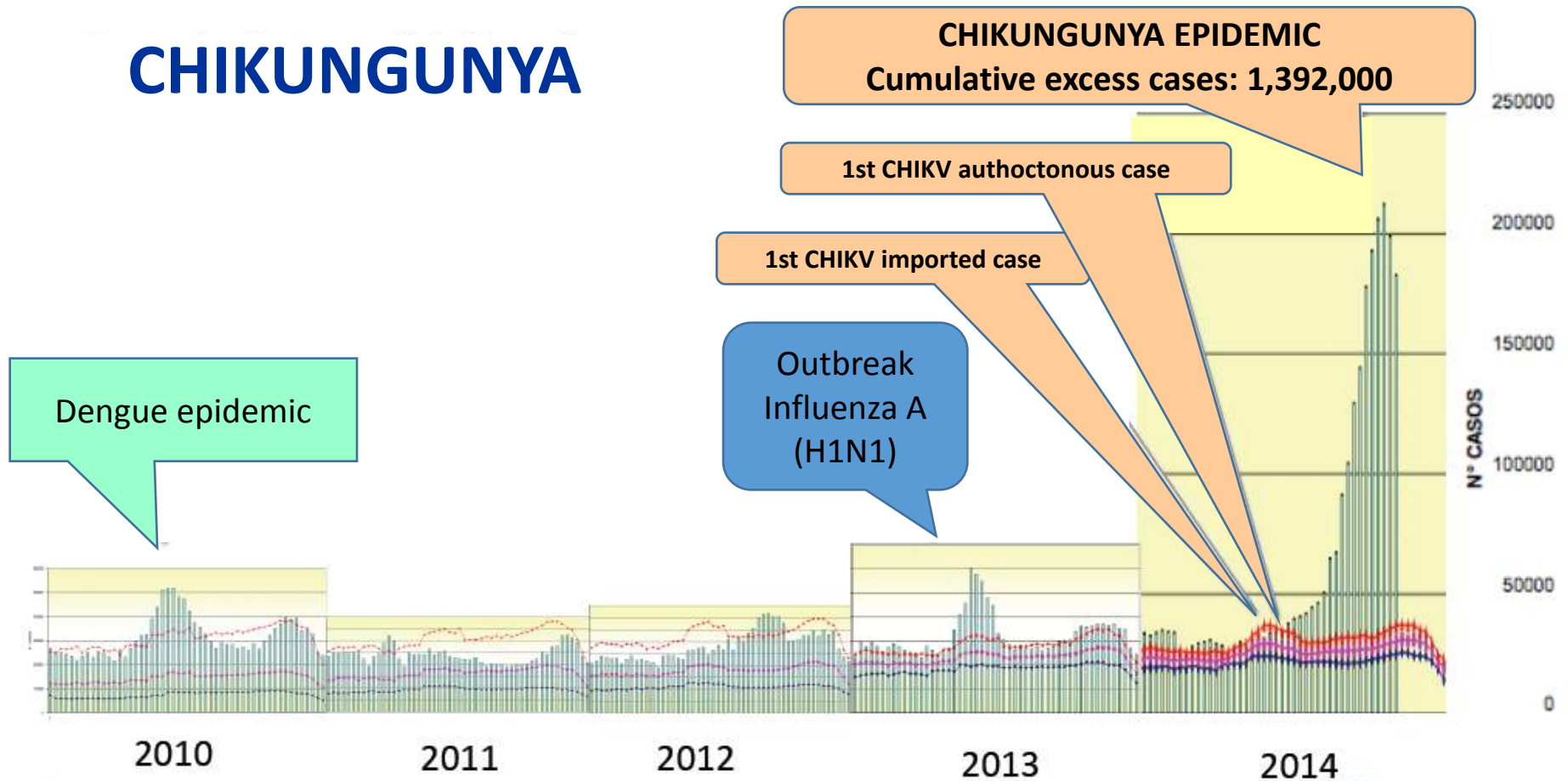
Ideal conditions for a Chikungunya (2014) and Zika (2016) epidemics in Venezuela

- Presence of vectors:
A. aegypti and *A. albopictus* (Tijgermug)
- Naïve population
- Uncontrolled dengue epidemic

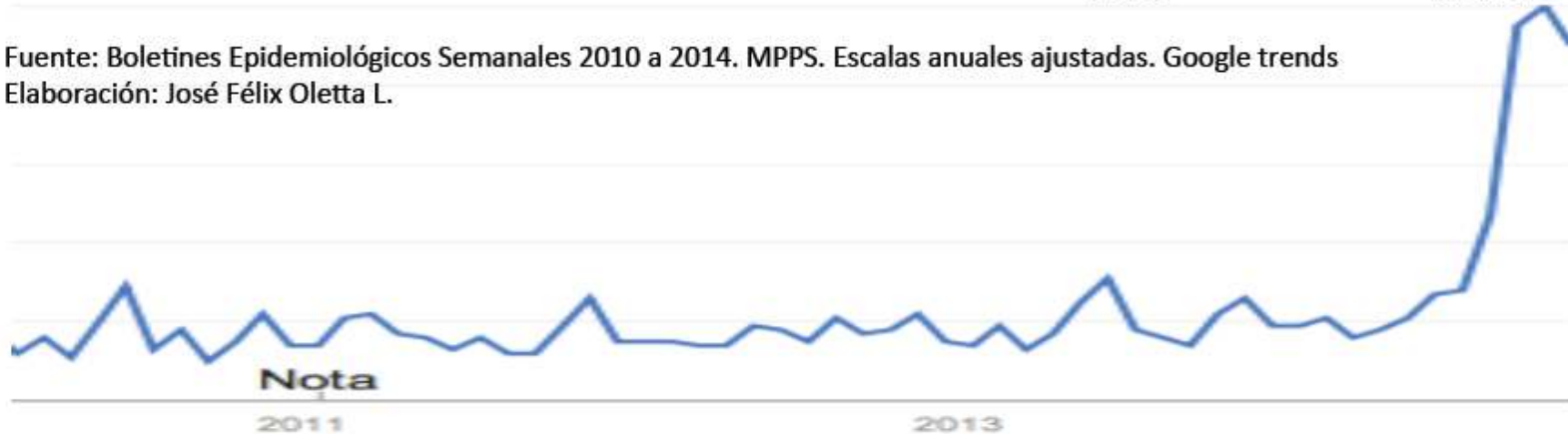


- Risk factors, poverty
- Deteriorated health system

CHIKUNGUNYA

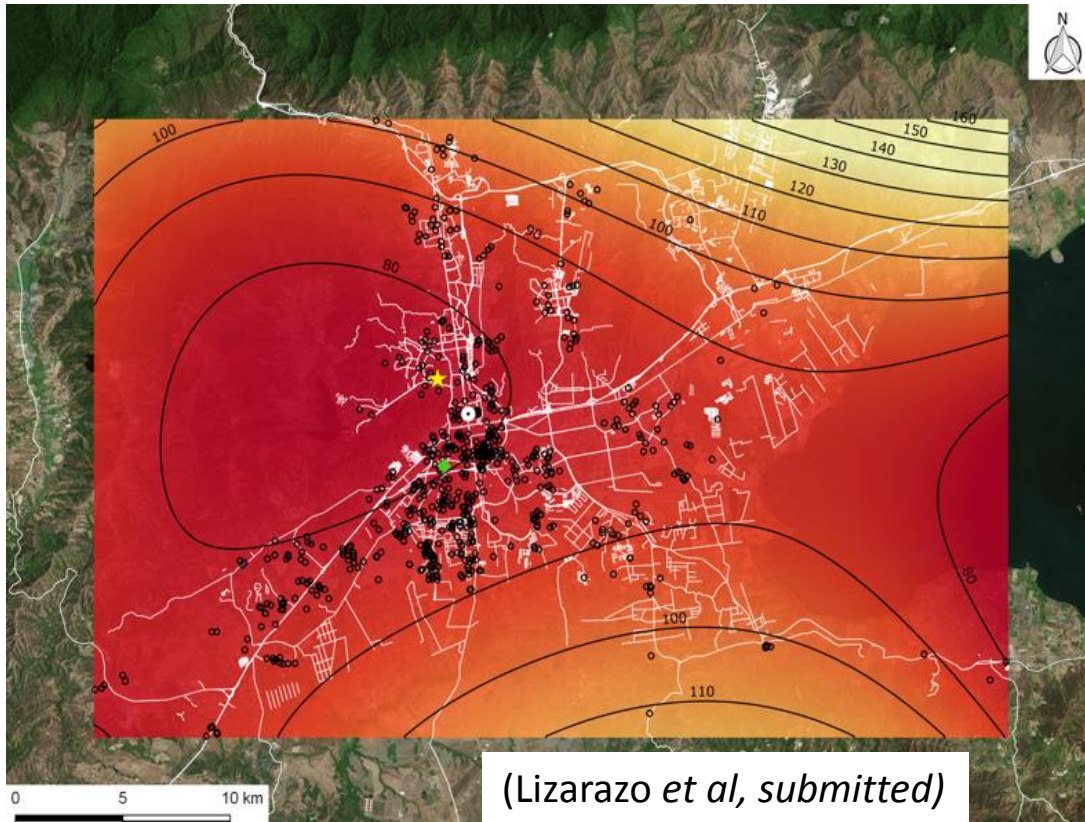


Fuente: Boletines Epidemiológicos Semanales 2010 a 2014. MPPS. Escalas anuales ajustadas. Google trends
Elaboración: José Félix Oletta L.



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

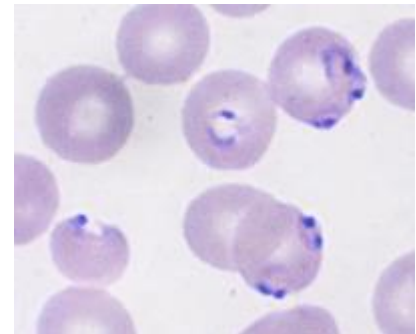


Havoc during chikungunya and Zika epidemics

- 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



Malaria in The Americas (2000-2015)

- 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

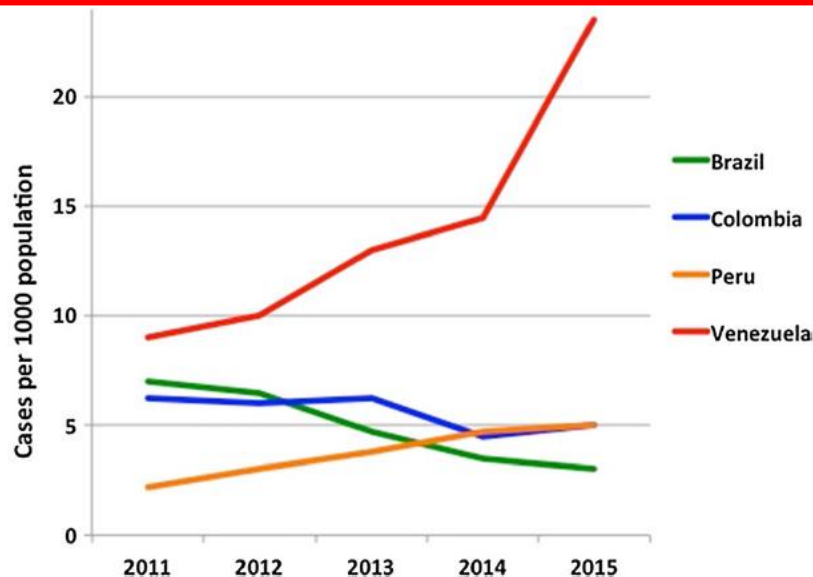


Fig. 2 Confirmed malaria cases 2011–2015. Number of confirmed malaria cases in Brazil, Colombia, Peru and Venezuela are shown per 1000 population Data from [1]

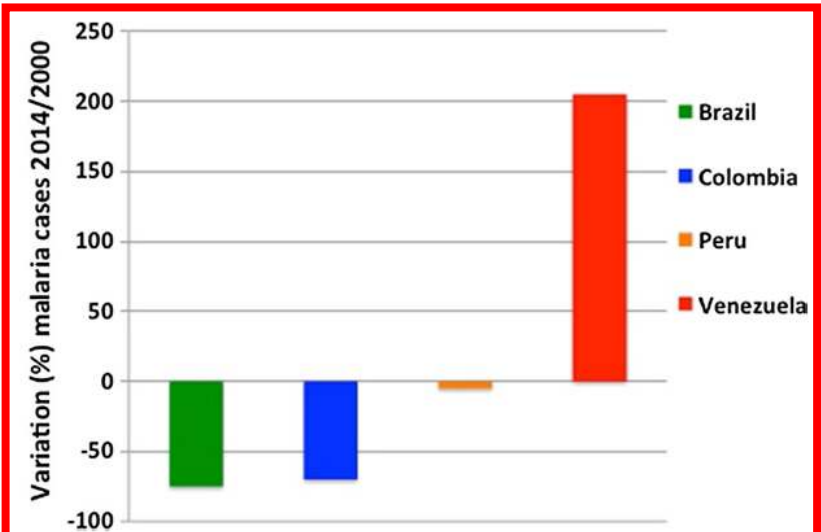
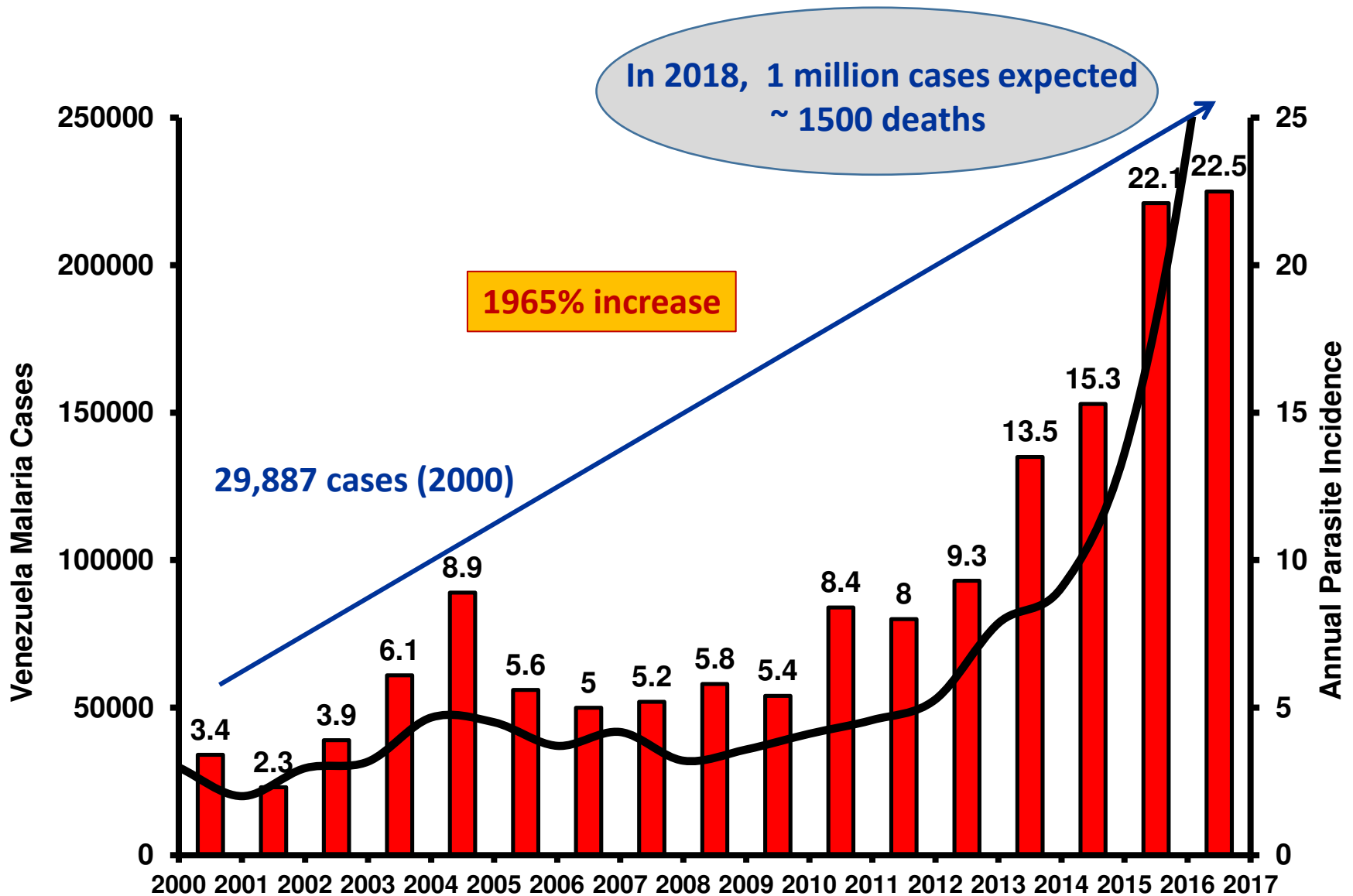


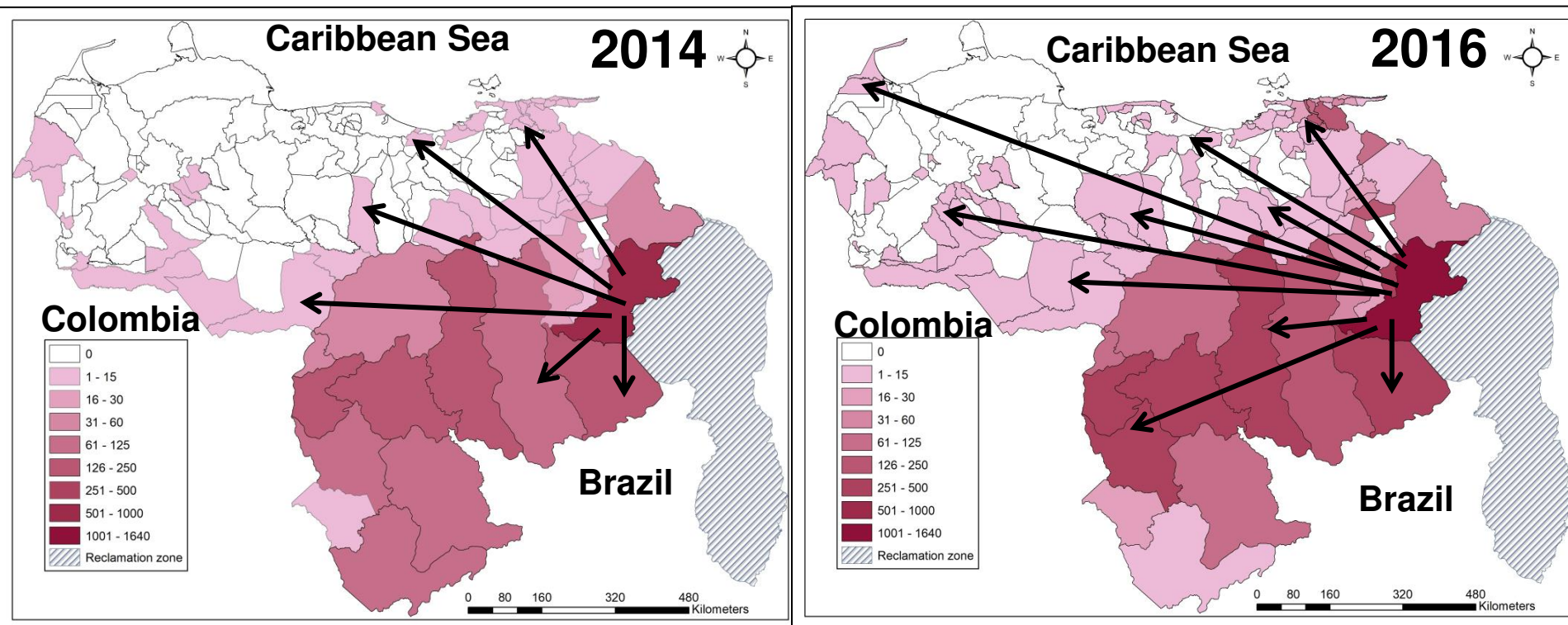
Fig. 3 Change (%) in malaria cases in 2014 compared to 2000 baseline. 2014 reduction (%) in number of malaria cases relative to the baseline year 2000 in Brazil, Colombia, Brazil, Peru and Venezuela are shown Data from [2, 5]

Malaria in Venezuela (2000-2017)

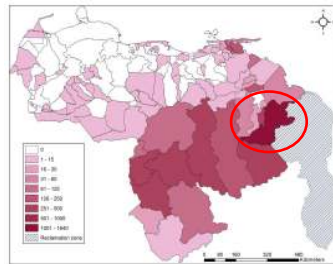


Venezuela, first WHO-certified country to eliminate malaria
in most of its territory in 1961

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



Increase in illegal mining strongly linked to the socio-economic crisis



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

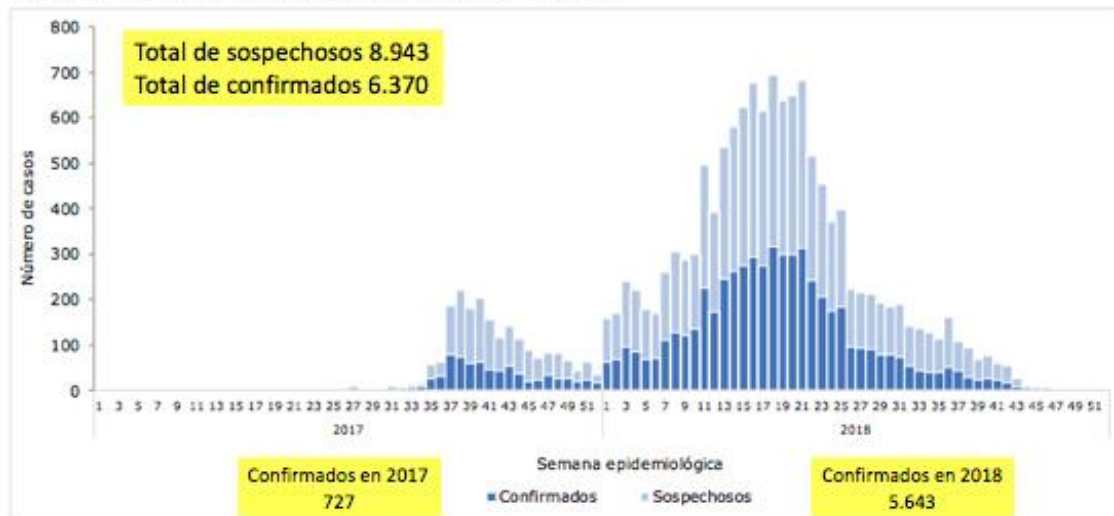


Measles epidemic

- 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

Figura 6. Casos notificados de sarampión, según semana epidemiológica de inicio de exantema. Venezuela, 2017-2018 (hasta la SE 46)

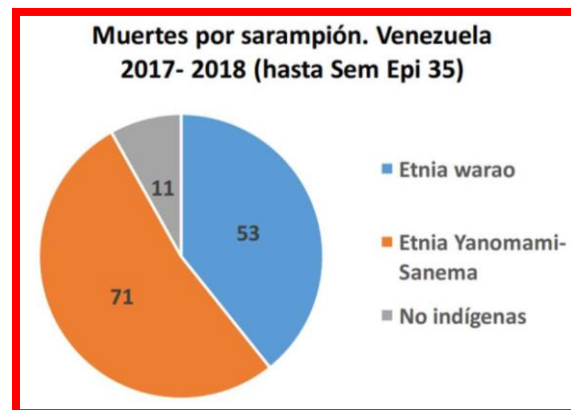


Up to November 2018:
~9,000 cases reported
135 deaths (underestimate)

Fuente: Datos del Ministerio del Poder Popular para la Salud de Venezuela y reproducidos por la OPS/OMS.

Measles epidemic

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



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)

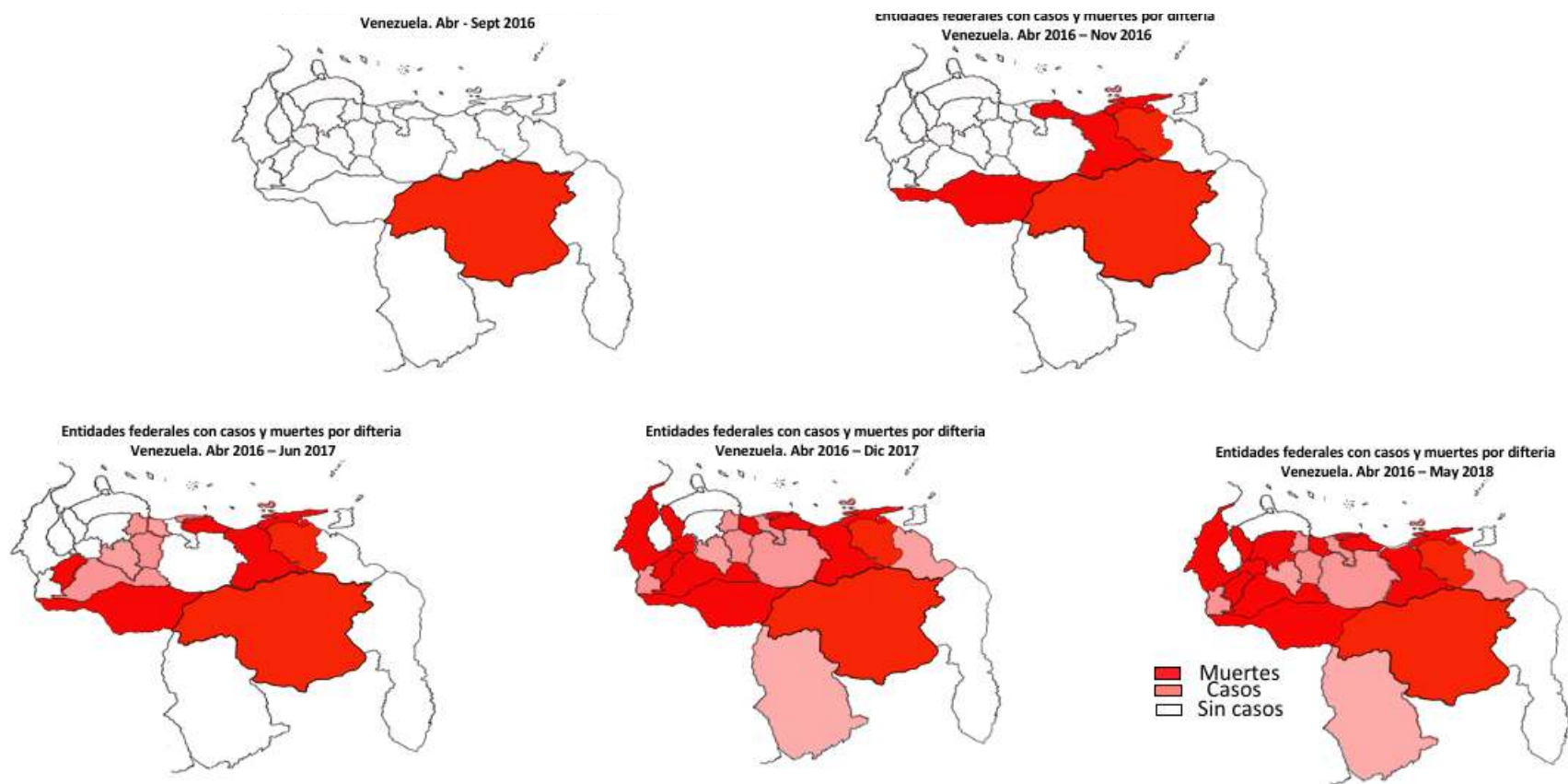


Diphtheria epidemic in Venezuela

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



Source: Sociedad Venezolana de Salud Pública/ Red Defendamos la Epidemiología Nacional, Caracas, Venezuela. www.alianzasalud.org

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 News

8 November 2018

UN sounds alarm as Venezuelan refugees and migrants passes three million mark

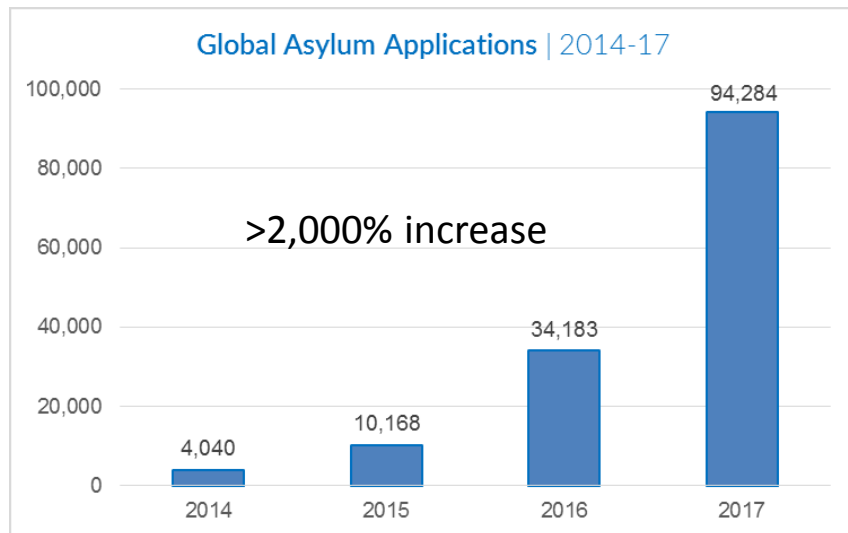


© UNHCR/Paul Smith | A family of Venezuelan children and their older Colombian-born relatives stand outside their wooden house in Barrio Camilo Daza in the city of Cúcuta, Colombia. Mother of four, Aide Caceres (far left) recently brought her children here because of the situation in Venezuela, but is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

Migrants and Asylum seekers



Asylum-seekers applications: >146,000



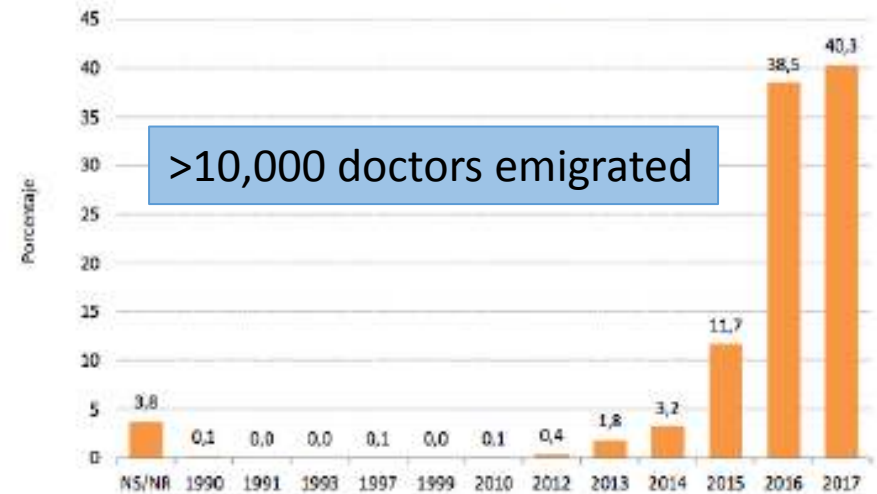
(UNHCR 2018, <https://www.unhcr.org/>; www.semana.com)



Exodus and collapse of health system



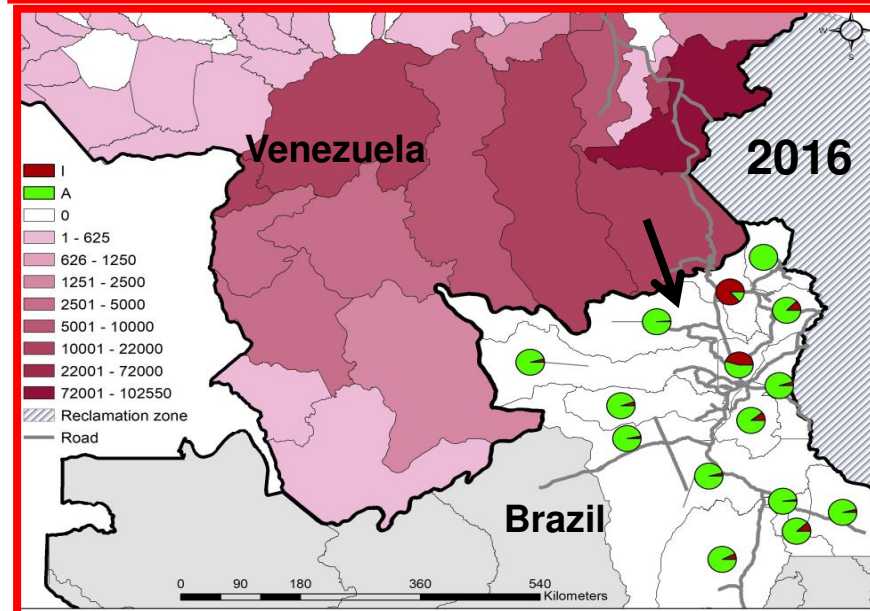
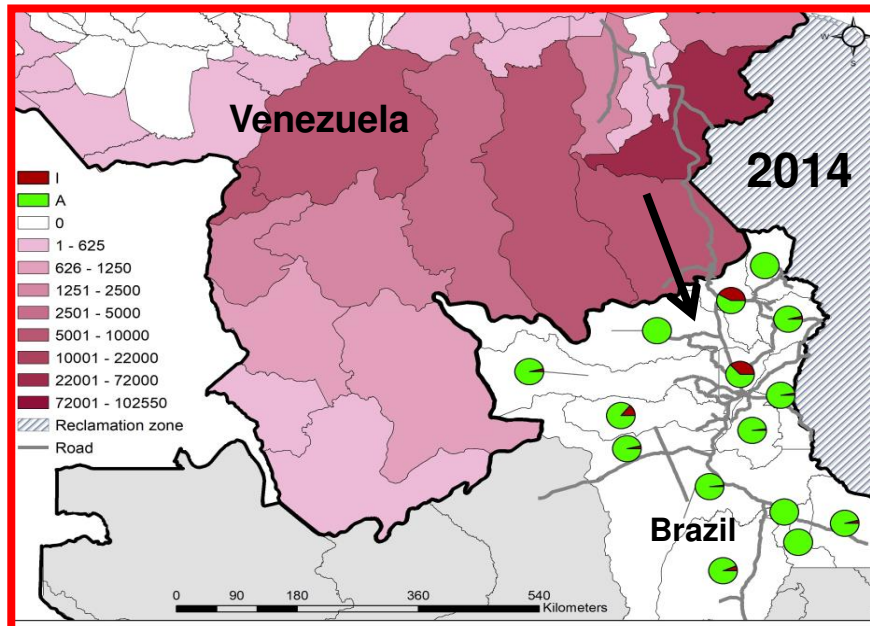
Distribución porcentual de la emigración venezolana según fecha de emigración



>10,000 doctors emigrated



Exodus and spill-over of infectious diseases Malaria



INSIGHTS

LETTERS

Edited by Jennifer Hill

Malaria in Venezuela requires response

The Americas have witnessed a substantial decline in malaria-related mortality (62%) and mortality (63%) during the past 15 years as part of the implementation of the Global Malaria Action Plan (3). Venezuela, the first World Health Organization (WHO)-certified country to eradicate malaria in 1968 (2), has been the alarming exception in the region, displaying an unprecedented 365% increase in malaria cases between 2000 and 2005 (2). In 2008 alone, 246,613 malaria cases were officially reported (3). Worryingly, 30% witnessed an increase of 48% in the cumulative number of cases compared to the previous year, totaling 339,705 malaria cases by 20 October (4). The disease has spread to areas where malaria was eradicated previously (such as near the capital, Caracas), prompting alarm in the health sector. Moreover, malaria cases have overwhelmed frontier health care infrastructure in Brazil and Colombia, where 76 and 81%, respectively, of imported malaria cases in 2005 originated in Venezuela (5).



Venezuelans wait outside a health center for malaria treatment in November 2012.

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REFERENCES

the use of new compounds will likely lead to the development of new medications to resist them. Integrated vector management programs should therefore devote equal attention to noninsecticide methods. Numerous biological control agents, from viruses to predatory fish, have been evaluated for effectiveness in controlling malaria mosquitoes. Foremost, the use of the bacterium *Serratia marcescens* was evaluated and has substantially diminished malaria when applied to aquatic habitats, such as the natural reservoir of *Anopheles* (6).

Science

Malaria in Venezuela requires response

Maria Eugenia Grillet, Leopoldo Villegas, José Félix Oletta, Adriana Tami and Jan E. Conn

Science 359 (6375), 528.
DOI: 10.1126/science.1254440

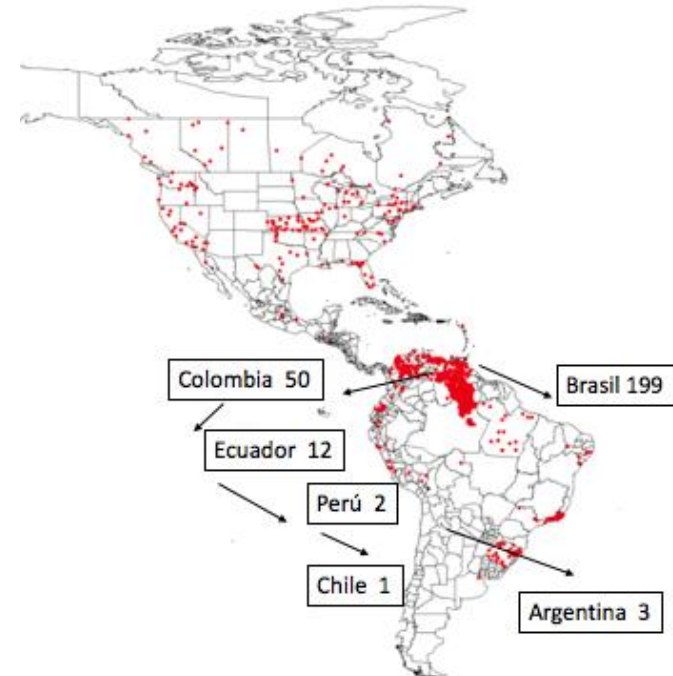
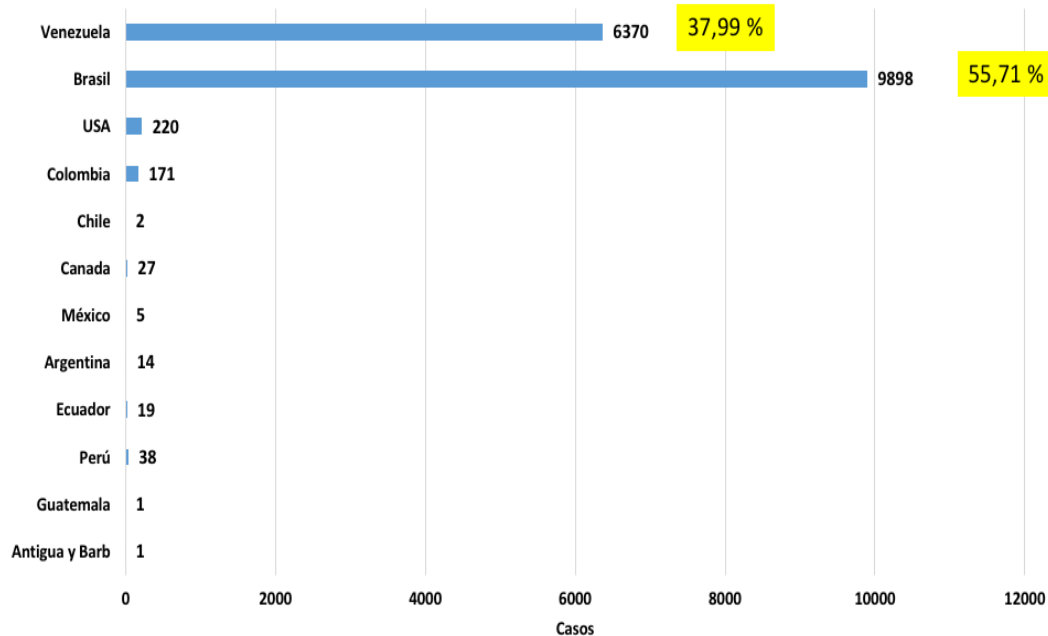
2 FEBRUARY 2018 • VOL 359 ISSUE 6375.p: 528

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

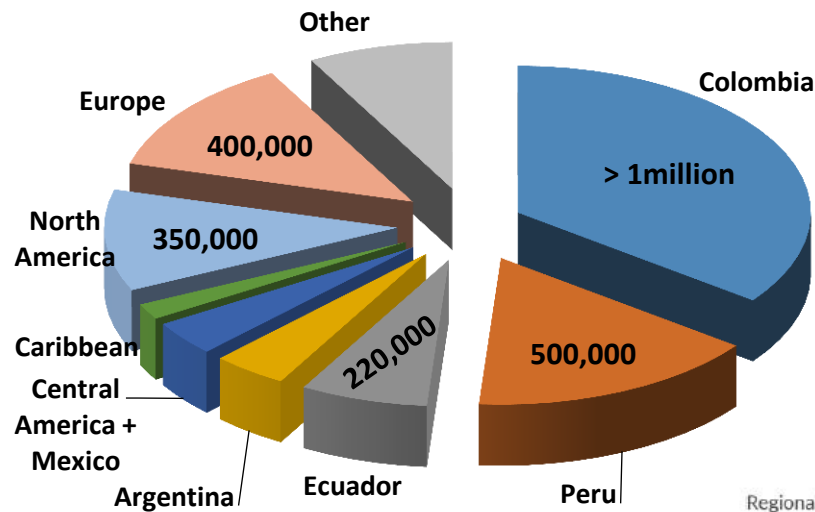
(Grillet, Tami *et al*, accepted Lancet Inf Dis)

Measles epidemic spill-over to other countries

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



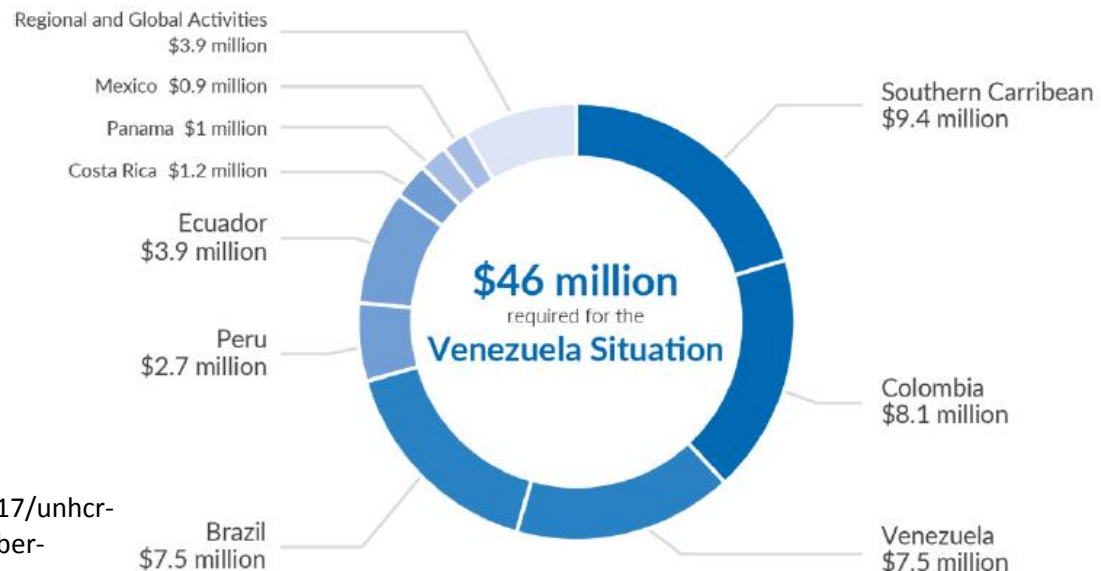
Neighbouring countries and NGO's praised for humanitarian response to Venezuelan migrants and refugees



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



Financial requirements | 2018



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)



A call for action



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



**VENEZUELA
MUERE DE HAMBRE**

International help needed

QUESTIONS...