

CURRENT SITUATION COVID-19 ECUADOR



Objectives



Historical Summary

Current situation:

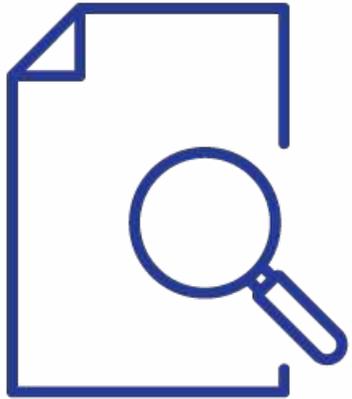
- Disease indicators and tendency
- Health system impact

Epidemiological strategy: Successful pearls

Learned experiences

Next steps

Historical Synthesis COVID-19, Ecuador



Period 1: Guayaquil and Babahoyo local spread
(March 15th - March 28th)

Imported cases from Spain and Italy - primary and secondary transmission clusters

Period 2: community transmission and exponential growth: Guayaquil, Samborondón, Daule, Durán, Milagro

(March 29th - April 4th)

Contingency Measures



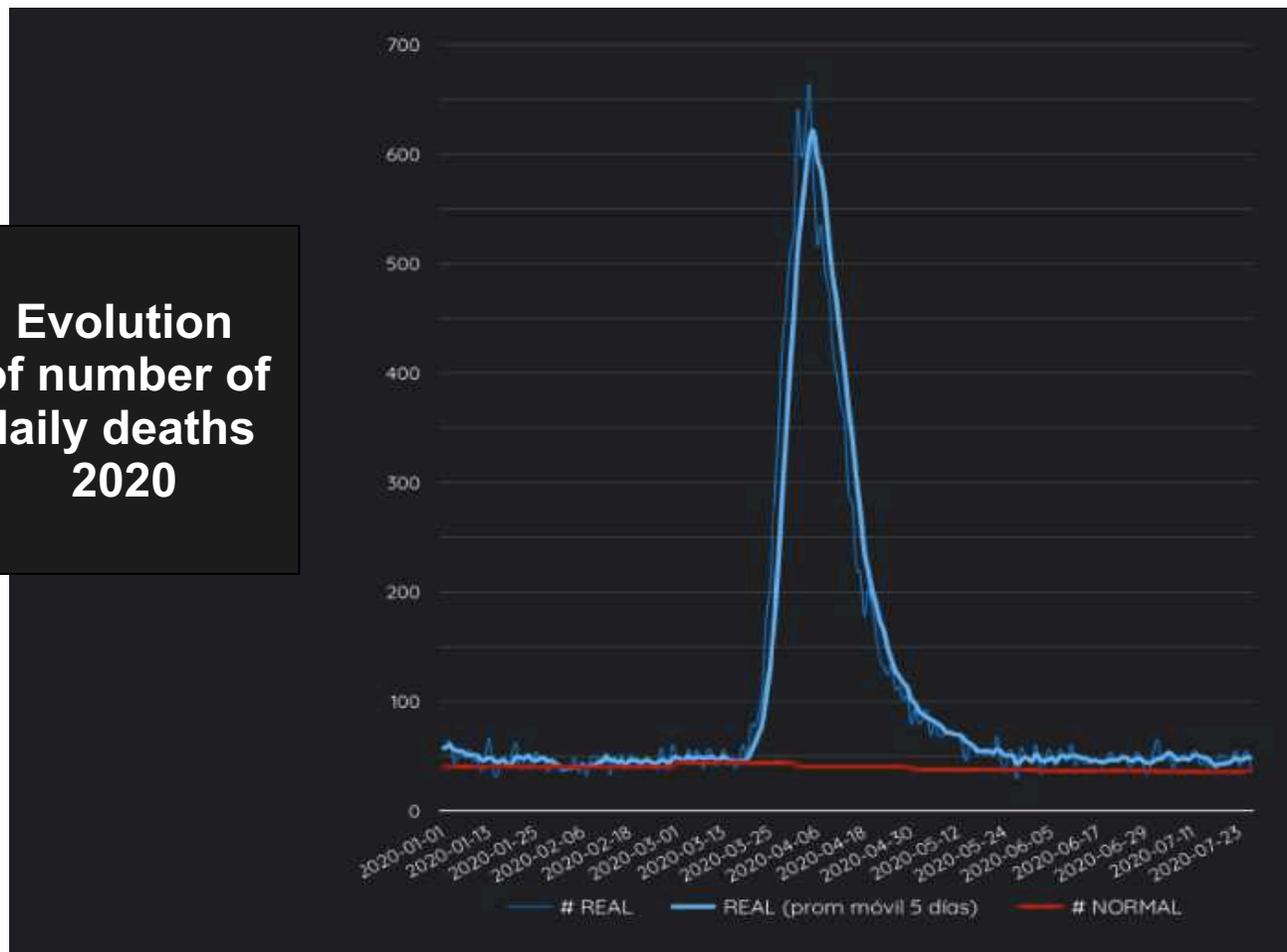
- February 29th “Patient Zero”- (February 15th)
Guayaquil, Babahoyo

- March 16th - state of emergency declared:
Emergency Operations Committee (EOC)

- 2nd country in Latin America to close airports

Daily deaths, April to July, Guayaquil

Evolution
of number of
daily deaths
2020



Source: Sebastián
Naranjo (Twitter:
[@NobombardeenUIO](https://twitter.com/NobombardeenUIO))

COVID - 19 , September 22 Data



102.852
RECOVERED
PATIENTS



17.679 HOSPITAL
DISCHARGES



197.697 DISCARDED
CASES



126.711 CONFIRMED
CASES



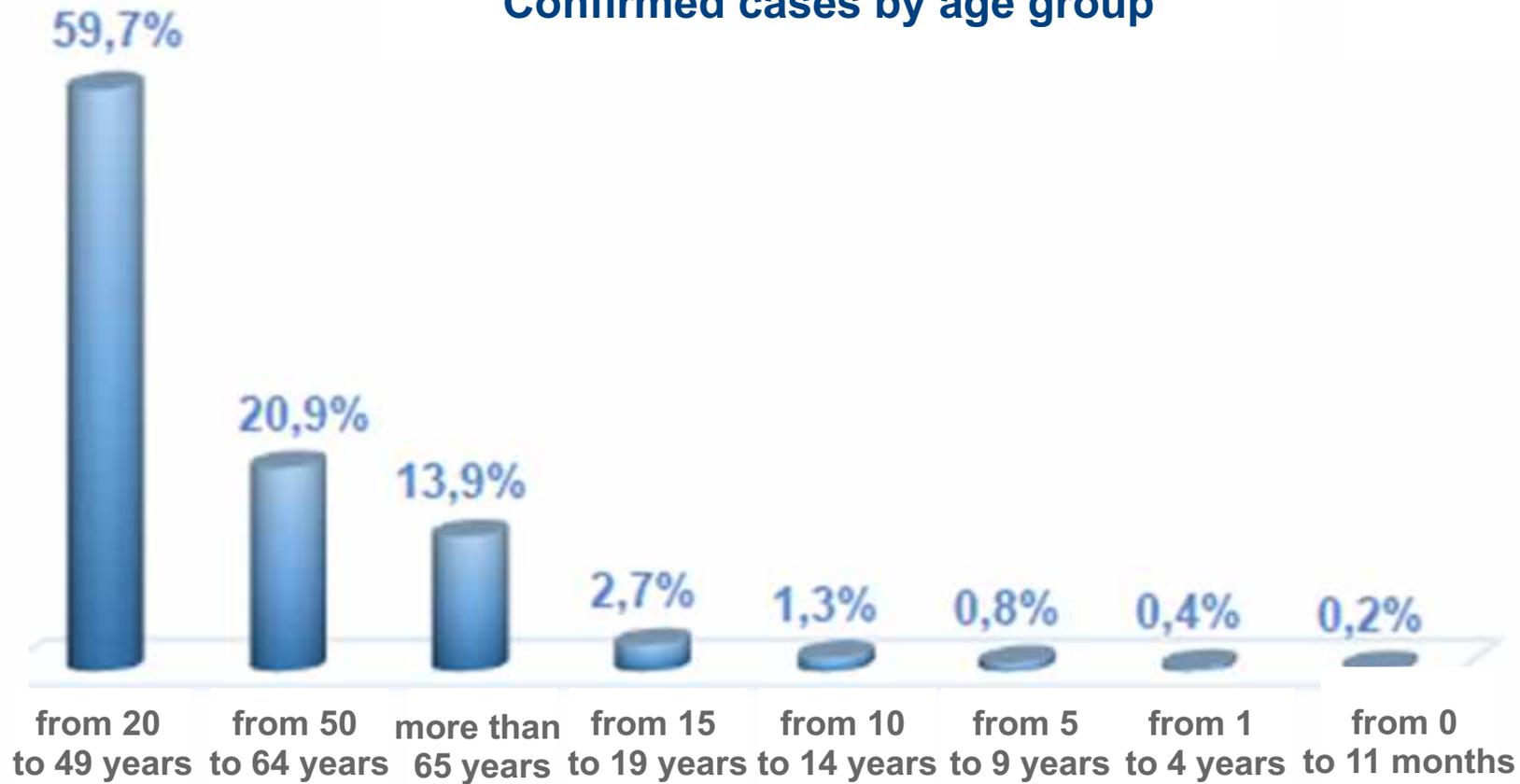
7.301 CONFIRMED + 3,794
PROBABLE



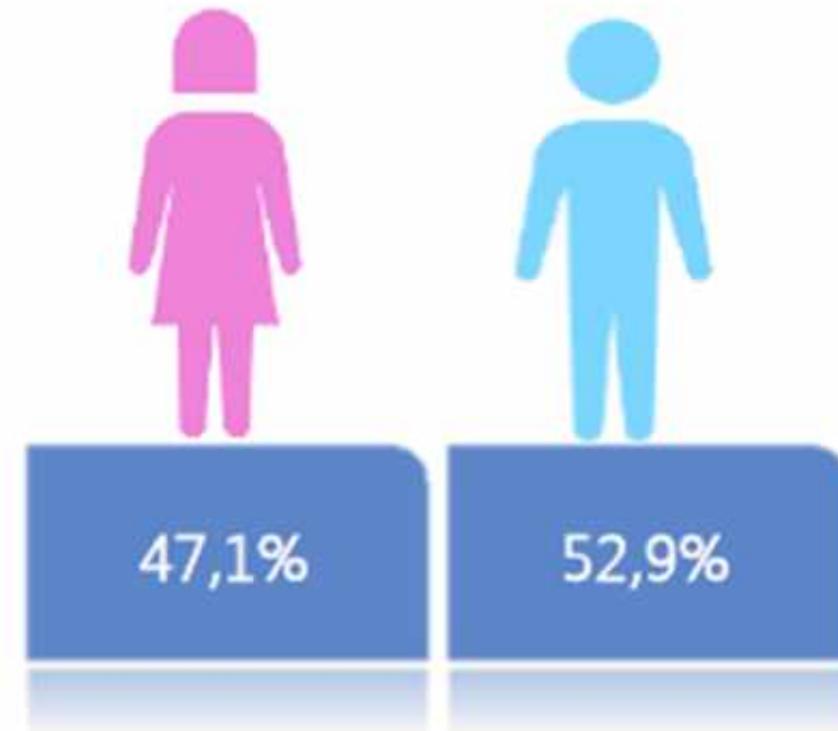
389,000 RT-PCR TAKEN

Sex and Age Distribution, National Data

Confirmed cases by age group



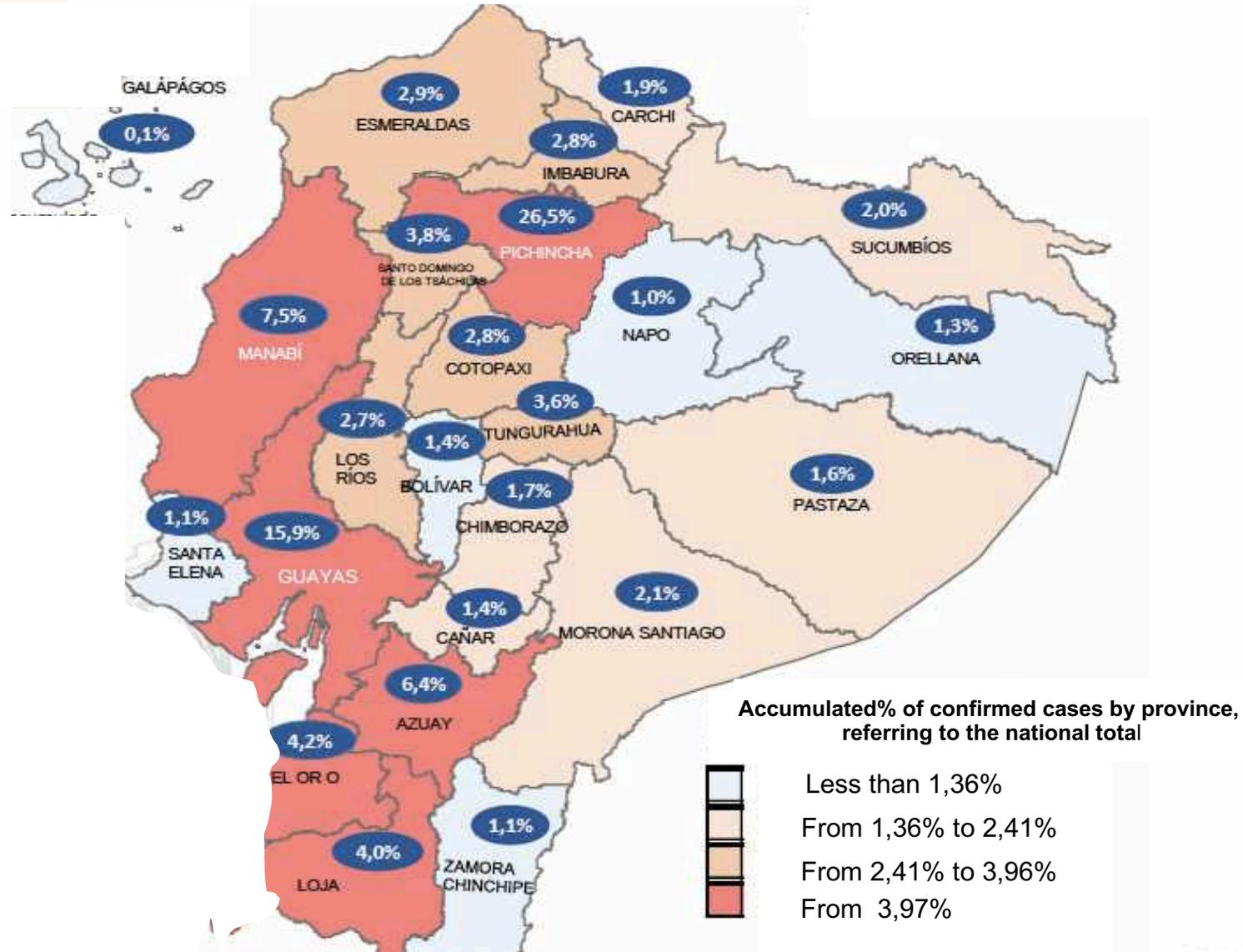
Confirmed cases by sex



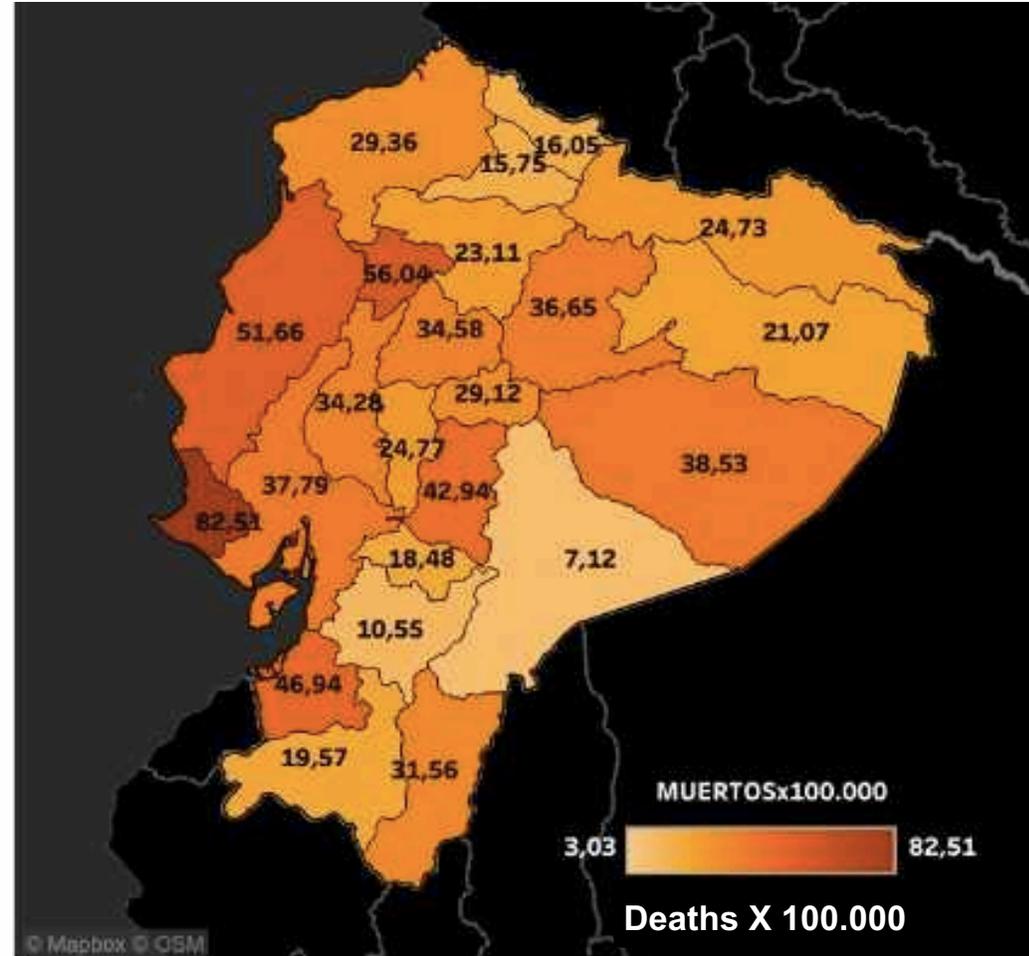
Ecuador

Cummulative Cases, by Province

September 22th

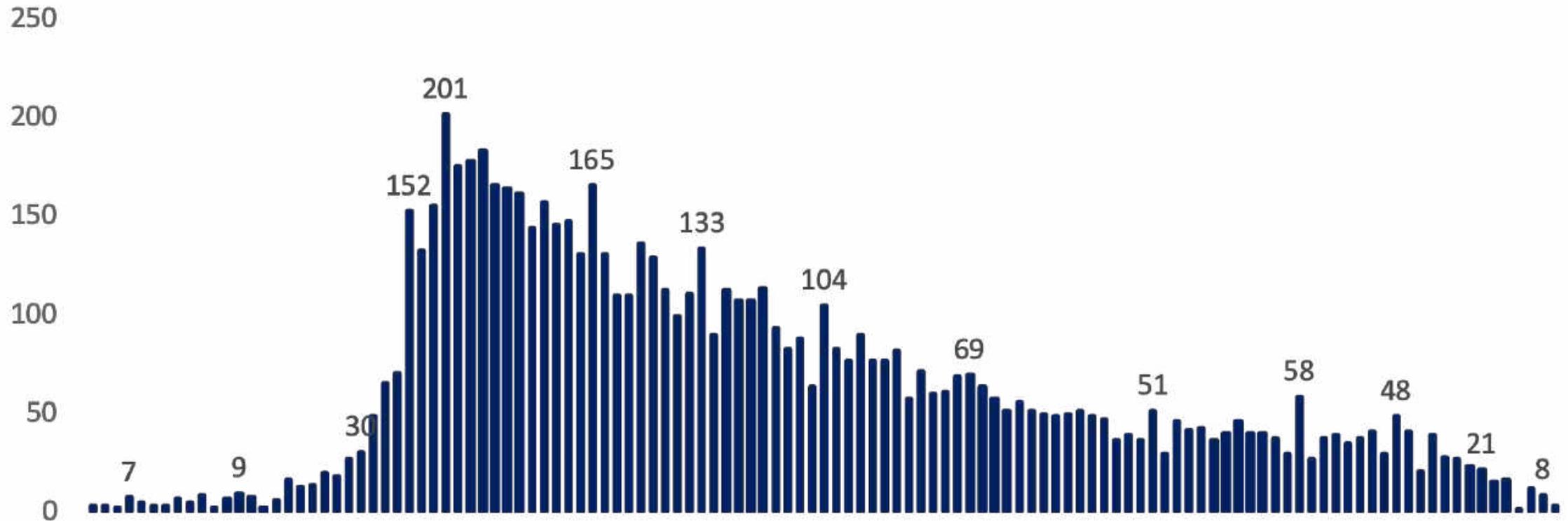


Deaths per 100,000 pop., by Province



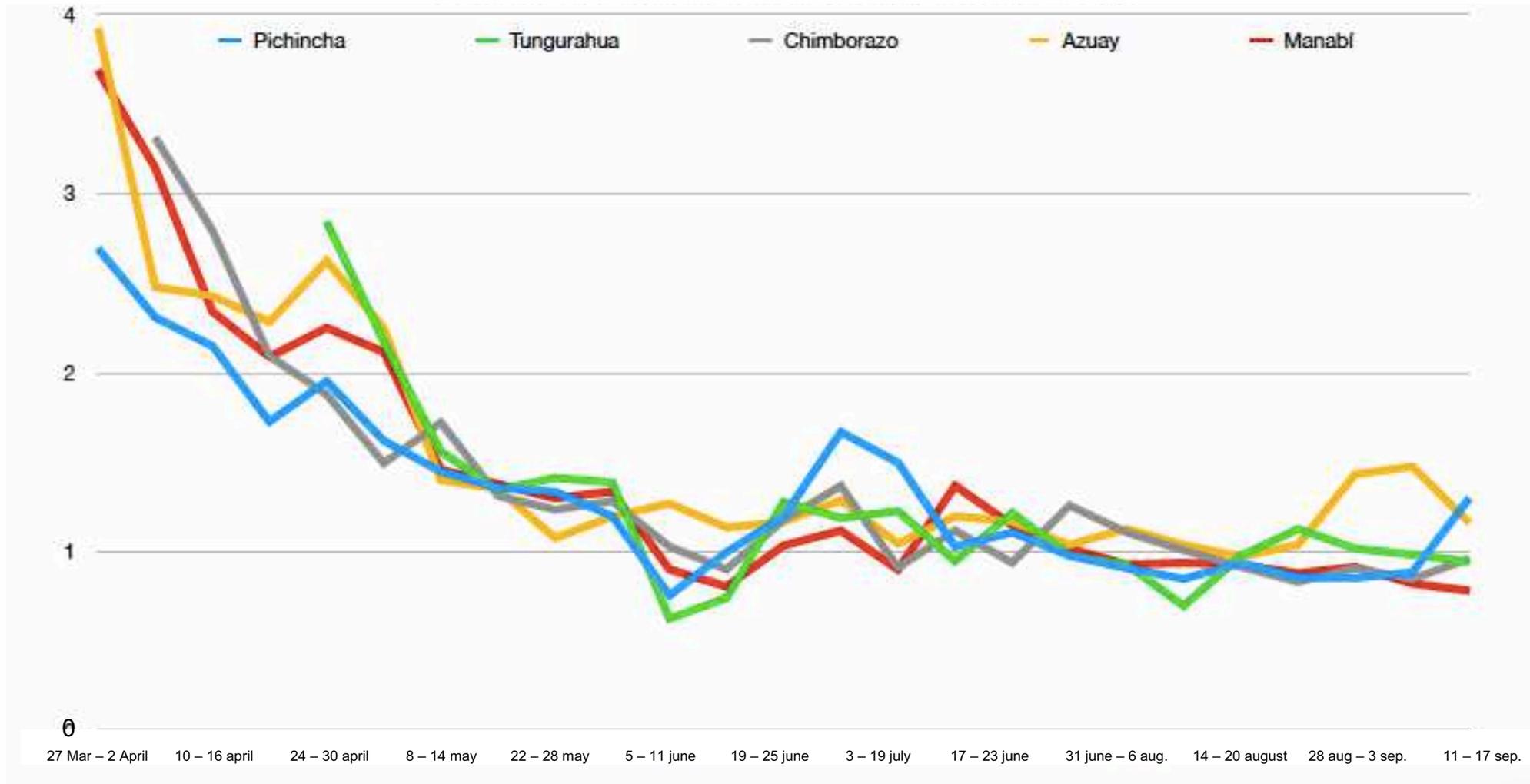
Number of CoVID-19 cases by date of death in Ecuador from February 29th to September 22th, 2020

Deaths COVID-19, Ecuador 2020

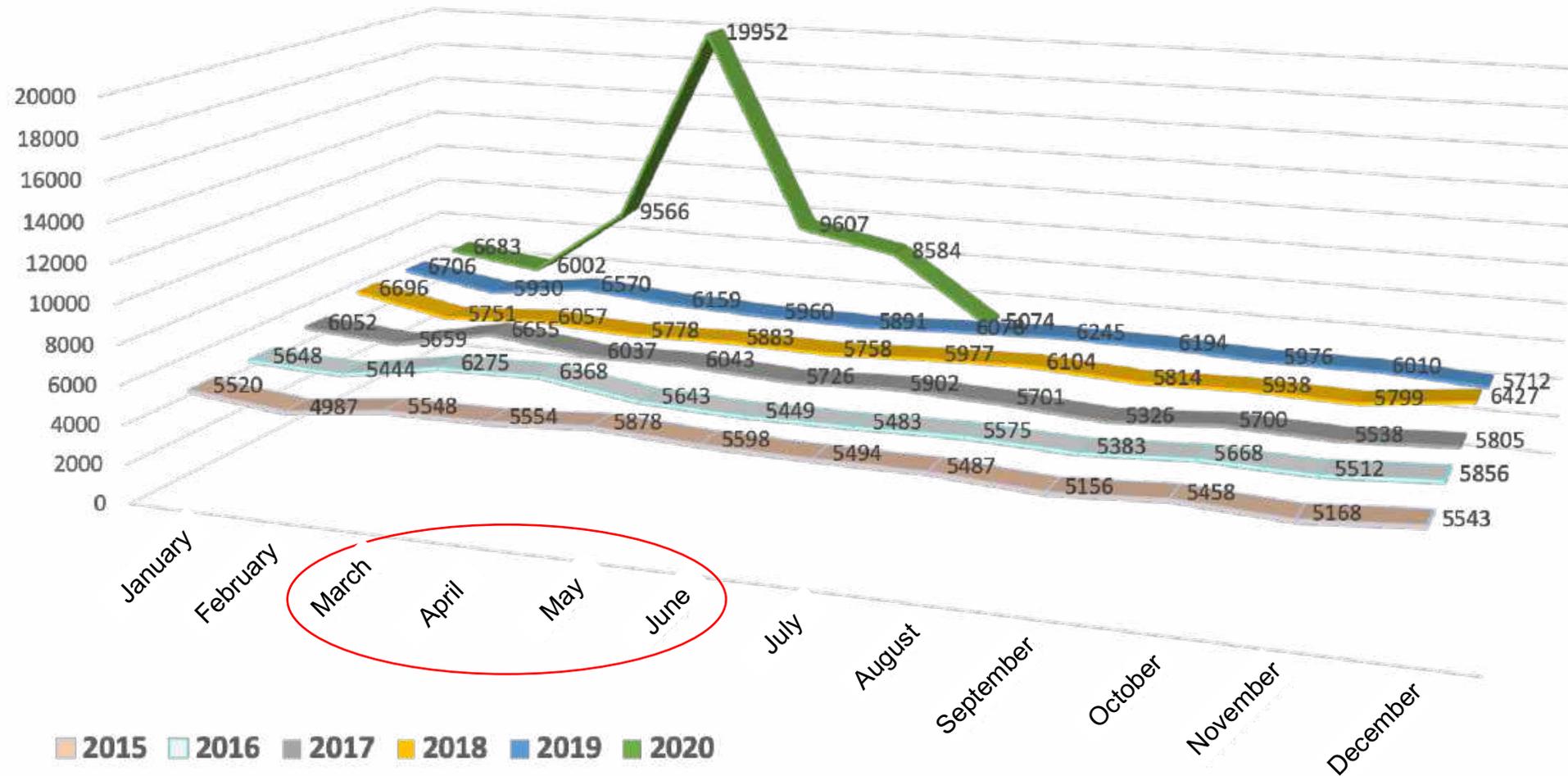


Source and Elaboration: DNVE

Weekly Evolution / Effective Reproduction Number (Ro)



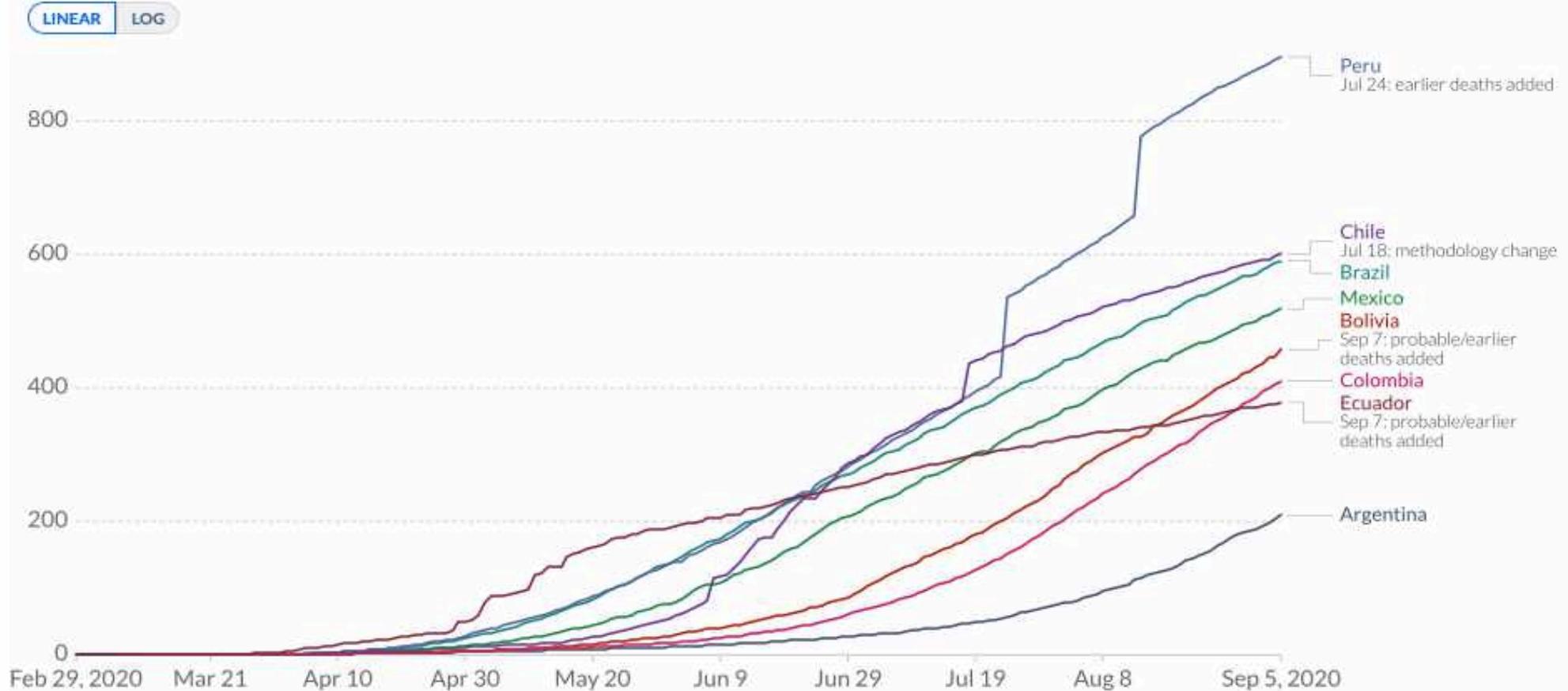
General deaths, Ecuador 2015 - 2020



https://public.tableau.com/profile/instituto.nacional.de.estad.stica.y.censos.inec#!/vizhome/Registroestadsticodedefuncionesgenerales_15907230182570/Men

Cumulative confirmed COVID-19 deaths per million people

Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.



Source: European CDC - Situation Update Worldwide - Last updated 11 September, 11:35 (London time)

CC BY



Impact on the health sector

Increase in pre-hospital emergency care.

Technology updates in three response systems

Increase in the capacity of public laboratories for test processing

Increase of infrastructure and equipment for endowment; increase of hospital beds



Deceased health professionals

Increase in deaths by coronavirus

Drastic reduction in usual attention

Substantial reduction in health promotion and disease prevention

Increased referral of patients from public health network to private health network

Epidemiological Strategy



Strengthening the primary health sector

Expansion of hospital Capacity

Active search for COVID-19 cases

Investment of 219 million dollars

Telemedicine training for health personnel

1. Strengthening the primary health sector, national



353 ENABLED Medical Consultancy

Attention to suspected cases of Covid-19

873,000 attention to vulnerable and priority patients

853,856 external consultations
345,442 emergency care for respiratory diseases

2. Increase of hospital capacity and health professionals



142 hospitals
for COVID-19

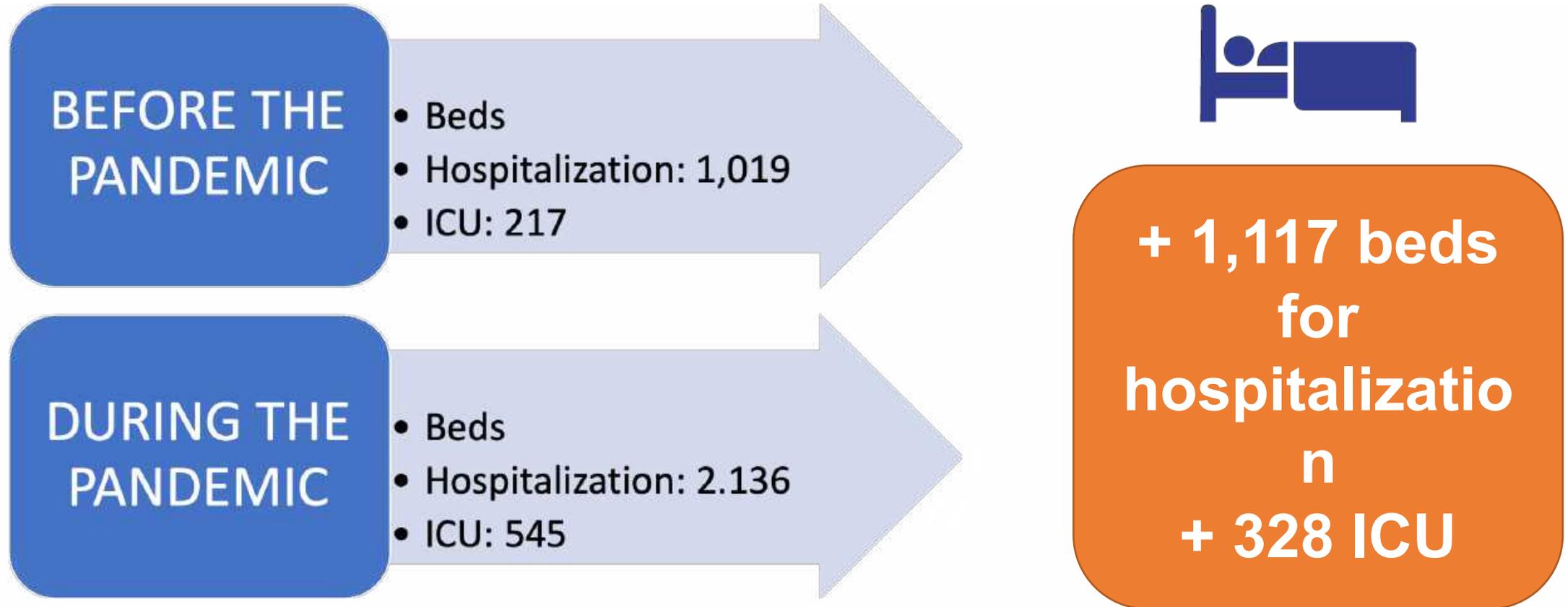


52,724 health
professionals

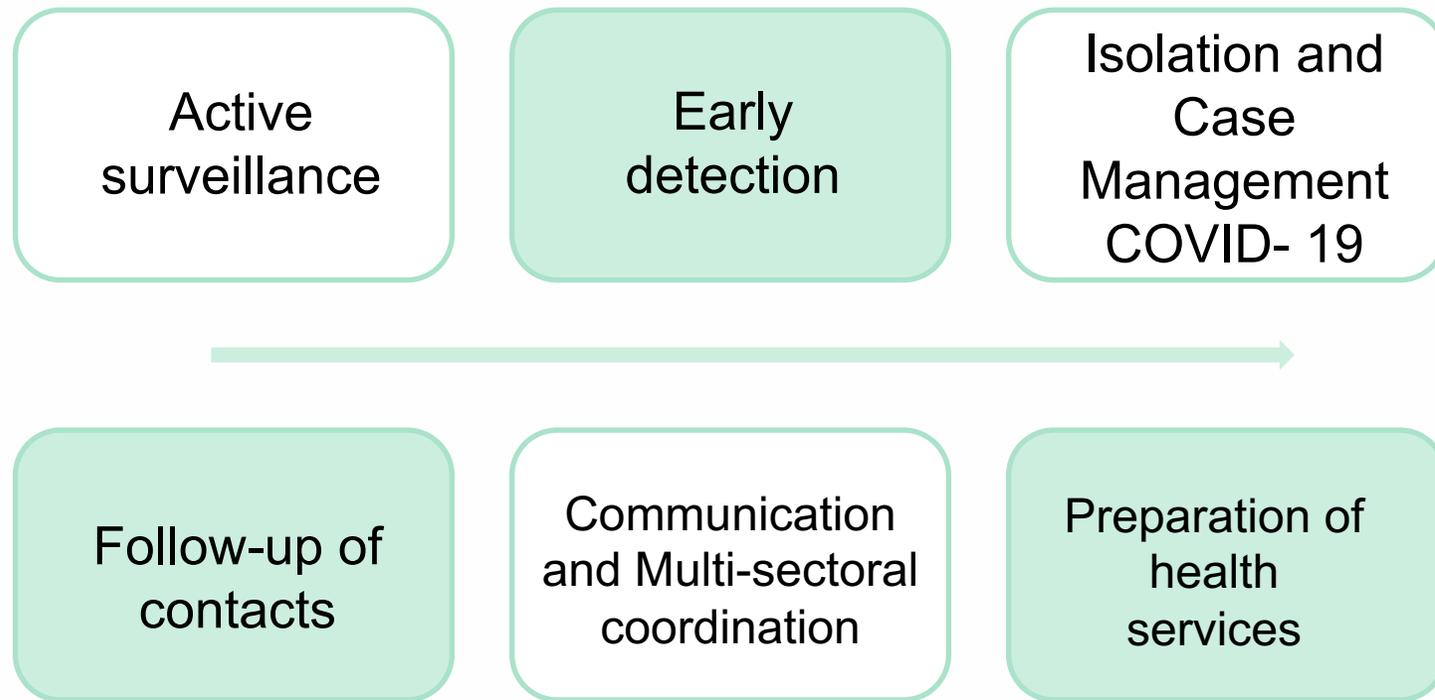


+ 2,273 health
professionals for the
emergency services

2.1 Increase of beds, hospitalization and icu / covid-19



3. Community surveillance



3.1 Identification of vulnerable populations:

Strengthening the "Médico del Barrio" strategy



Households in poverty and extreme poverty

Senior citizens

Children with disabilities

Indigenous, Afro-Ecuadorian, Montubio and other minority children and adolescents

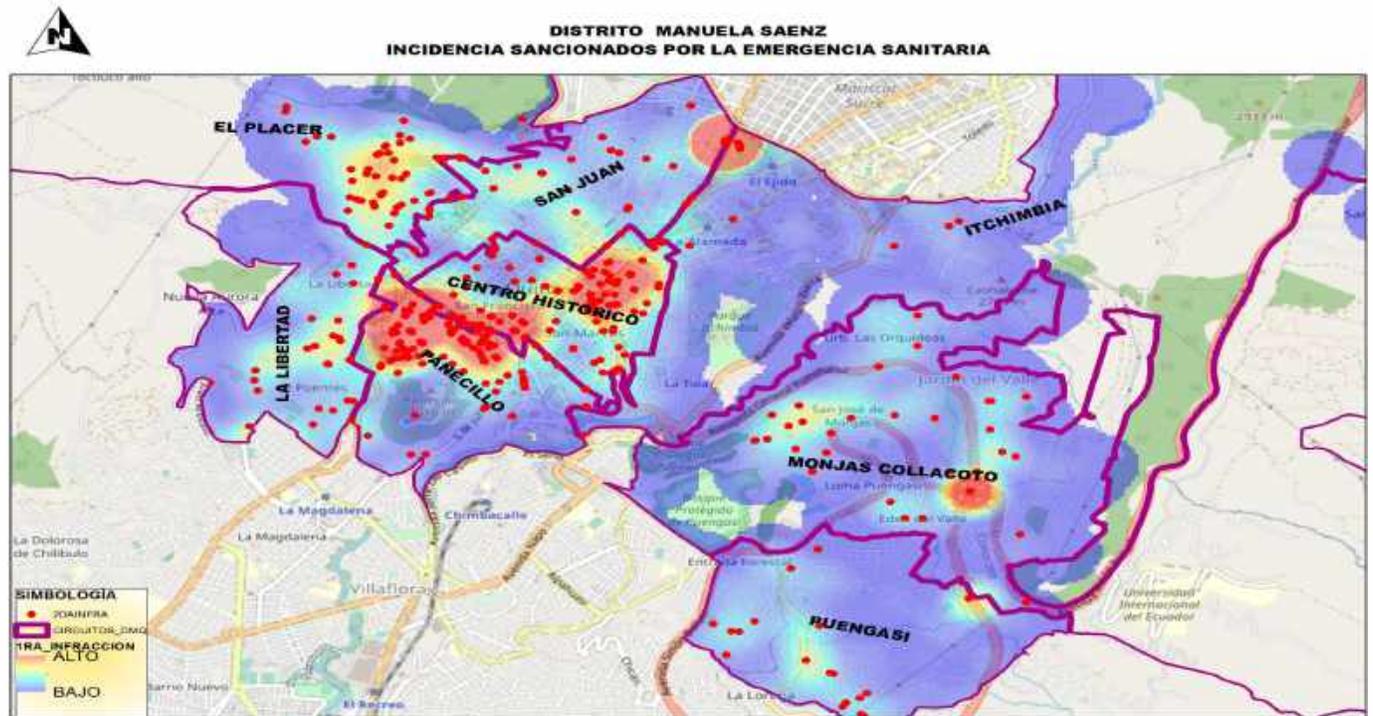
Persons of productive age who became unemployed or informally employed

Children, youth and women victims of domestic violence

4. Epidemiological Strategy: Diagnostic Tests

No massive testing: Limited access to RT-PCR tests, antigens, antibodies

- Smart sectorization
 - Probabilistic population
- Samples survey + Test
+ Georeferencing



Probabilistic Sample: Seroprevalence, Quito

Estimated prevalence of SARS-Cov-2 antibodies in Quito

21,9%
(IC95%: 19,5- 24,3)



Approximately 369,000* people have been infected

***369.080** (IC95%: 362.431 – 411.730).

Lessons Learned



Joint work: city halls, private companies

Primary Healthcare System Activation

Telemedicine: staff training of 38 hospitals

Probabilistic samples: community immunity

International cooperation is essential

International Collaboration



MINISTRY OF PUBLIC HEALTH

Next Steps

1) Genomic Surveillance Genomic characterization SARS-Cov-2- Ecuador

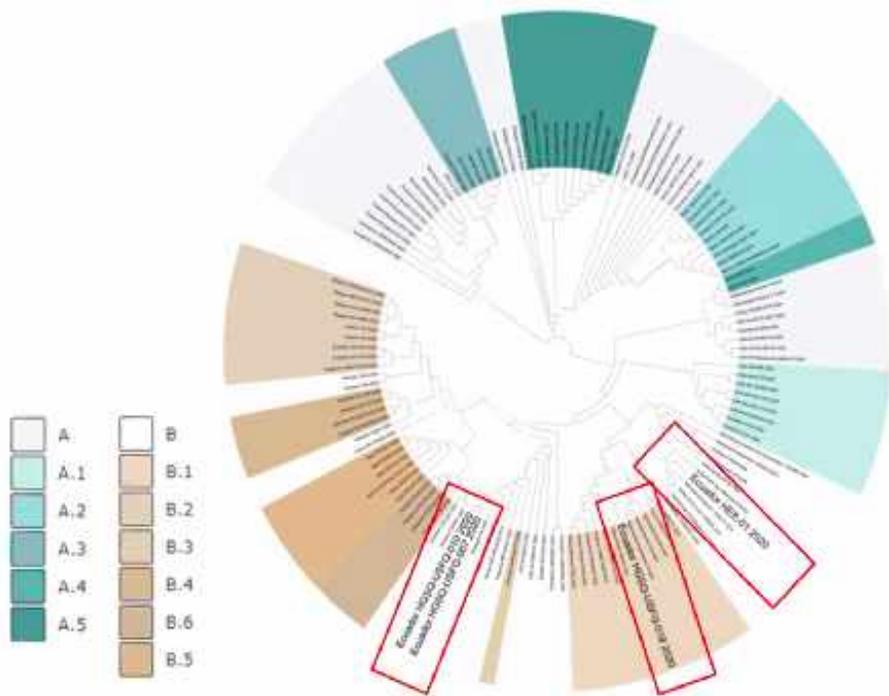
First cases in Ecuador



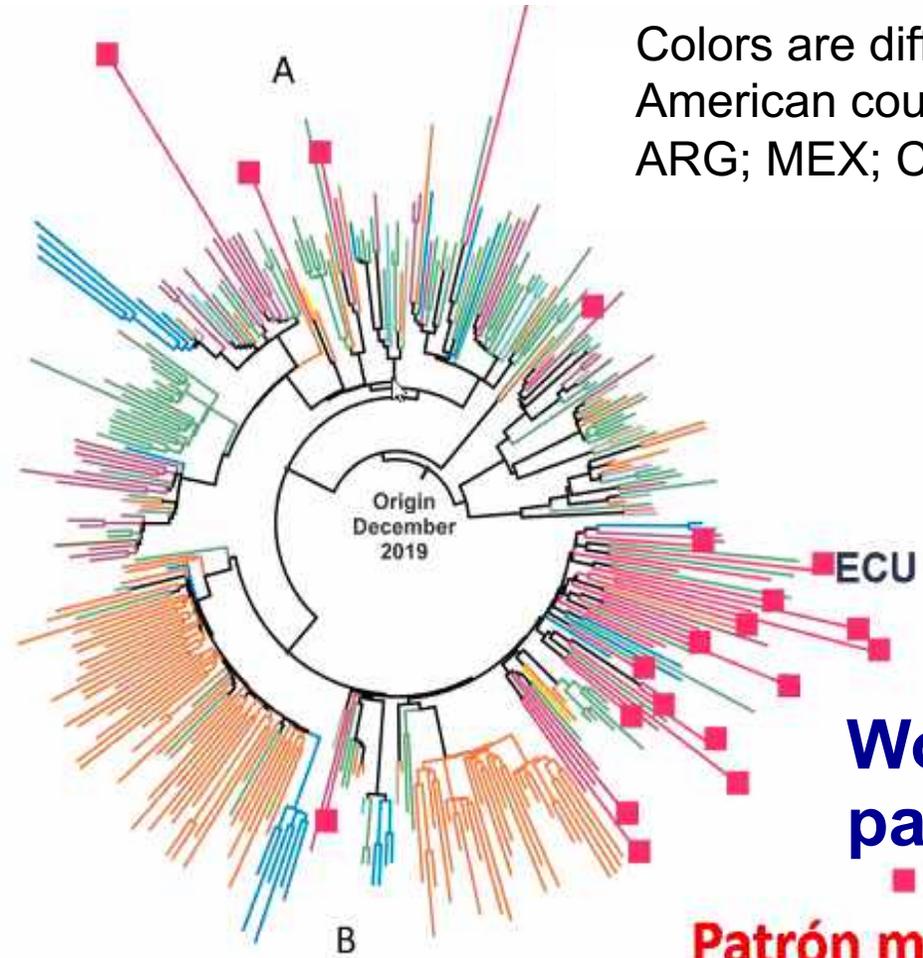
GISAID	
Lineage (GISAID Clade)	B.1.1.1 (1)
Accession details/history	Original
Sample information	
Collection date	2020-03-20
Location	South America / Ecuador / Los Rios / Barcelona
Sex	Female
Additional laboratory information	
Specimen	nasal
Patient age	68
Patient status	unknown
Specimen source	
Additional host information	
Outbreak	
Last vaccinated	
Treatment	
Sequencing technology	Illumina MiSeq
Assembly method	
Coverage	
Comment	
Lab information	
Originating lab	Instituto Nacional de Investigaciones en Salud Pública - INSP
Address	Ecuador
Sample ID given by the sampler/provider	
Submitting lab	INSP - QUITO
Address	ECUADOR-GERMANY
Sample ID given by the submitting laboratory	
Authors	María Inés Caceres, Consuelo de Mora Corona, Andrea Heredia-Eche, Maria-Lena Sander, Nina Kitzler, Marika Diercke, Daniela Portugal, Manuel Dominguez, Silvia Salgado, Adam Orlandi, Alexander Löffler, Justo Castro Zambrano, Justo Castro Zambrano
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Multiple introductions of SARS-COV-2 to Latin America



Charité/INSPI-MPS Study



Colors are different Latin American countries: BRA; CHI; ARG; MEX; COL

“The pandemic shouldn’t be controlled inside the hospitals, but at the community level”

