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)
COVID-19, September 22 Data

102,852 RECOVERED PATIENTS

17,679 HOSPITAL DISCHARGES

389,000 RT-PCR TAKEN

197,697 DISCARDED CASES

126,711 CONFIRMED CASES

7,301 CONFIRMED + 3,794 PROBABLE
Sex and Age Distribution, National Data

Confmed cases by age group

- from 20 to 49 years: 59.7%
- from 50 to 64 years: 20.9%
- more than 65 years: 13.9%
- from 15 to 19 years: 2.7%
- from 10 to 14 years: 1.3%
- from 5 to 9 years: 0.8%
- from 1 to 4 years: 0.4%
- from 0 to 11 months: 0.2%

Confmed cases by sex

- Female: 47.1%
- Male: 52.9%
Ecuador
Cumulative Cases, by Province
September 22th

Accumulated% of confirmed cases by province, referring to the national total

- Less than 1.36%
- From 1.36% to 2.41%
- From 2.41% to 3.96%
- From 3.97%
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

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Weekly Evolution / Effective Reproduction Number (Ro)

MINISTRY OF PUBLIC HEALTH
General deaths, Ecuador 2015 - 2020

https://public.tableau.com/profile/instituto.nacional.de.estad.stica.y.censos.inec.#!/vizhome/Registroestadisticodefuncionesgenerales_15907230182570/Men

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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)
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

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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

**BEFORE THE PANDEMIC**
- Beds
- Hospitalization: 1,019
- ICU: 217

**DURING THE PANDEMIC**
- Beds
- Hospitalization: 2,136
- ICU: 545

+ 1,117 beds for hospitalization
+ 328 ICU

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3. Community surveillance

- Active surveillance
- Early detection
- Isolation and Case Management COVID-19
- Follow-up of contacts
- Communication and Multi-sectoral coordination
- Preparation of health services
3.1 Identification of vulnerable populations:

Strengthening the "Médico del Barrio" strategy

<table>
<thead>
<tr>
<th>Households in poverty and extreme poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior citizens</td>
</tr>
<tr>
<td>Children with disabilities</td>
</tr>
<tr>
<td>Indigenous, Afro-Ecuadorian, Montubio and other minority children and adolescents</td>
</tr>
<tr>
<td>Persons of productive age who became unemployed or informally employed</td>
</tr>
<tr>
<td>Children, youth and women victims of domestic violence</td>
</tr>
</tbody>
</table>
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%  
(1C95%: 19,5 - 24,3)

Approximately 369,000* people have been infected

*369,080 (IC95%: 362,431 – 411,730).

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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
Next Steps

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

First cases in Ecuador
Multiple introductions of SARS-CoV-2 to Latin America

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

Charité/INSPI-MPS Study

World pattern

Patrón mundial

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