



Actions applied in Costa Rica to handle:

The traffic increase due to social isolation measures to prevent COVID-19



August 20, 2020



Actions applied in Costa Rica to handle traffic increase due to social isolation measures to prevent COVID-19:



Creation of *“technical group of operators' delegates to analyze networks response”*



Continuous monitoring of networks with the *National system of measurement probes* for fixed and mobile services



Regulatory measures to broaden and ease the contract options for telecommunications services (RCS-128-2020)





Technical group of operators' delegates to analyze networks response

Members:



Regulator



Central Government (Micitt)



Main Operators



11 meetings (April 1st-August 5) :

Highlights

April

- All operators joined or increased capacity to one or more IXP (incumbent joined)
- Proposal and review of alternatives to handle traffic increase (international measures benchmark)
- Discussion of alternatives to solve customer complaints (Alternative Dispute Resolution)
- Enforce the requirement to report network outages or problems to informe.red@sutel.go.cr
- Operators are free to establish financial arrangements with customers facing payment problems
- New and particular **KPI** creation for monitoring **Networks Response to Traffic Increase (NRTI)**

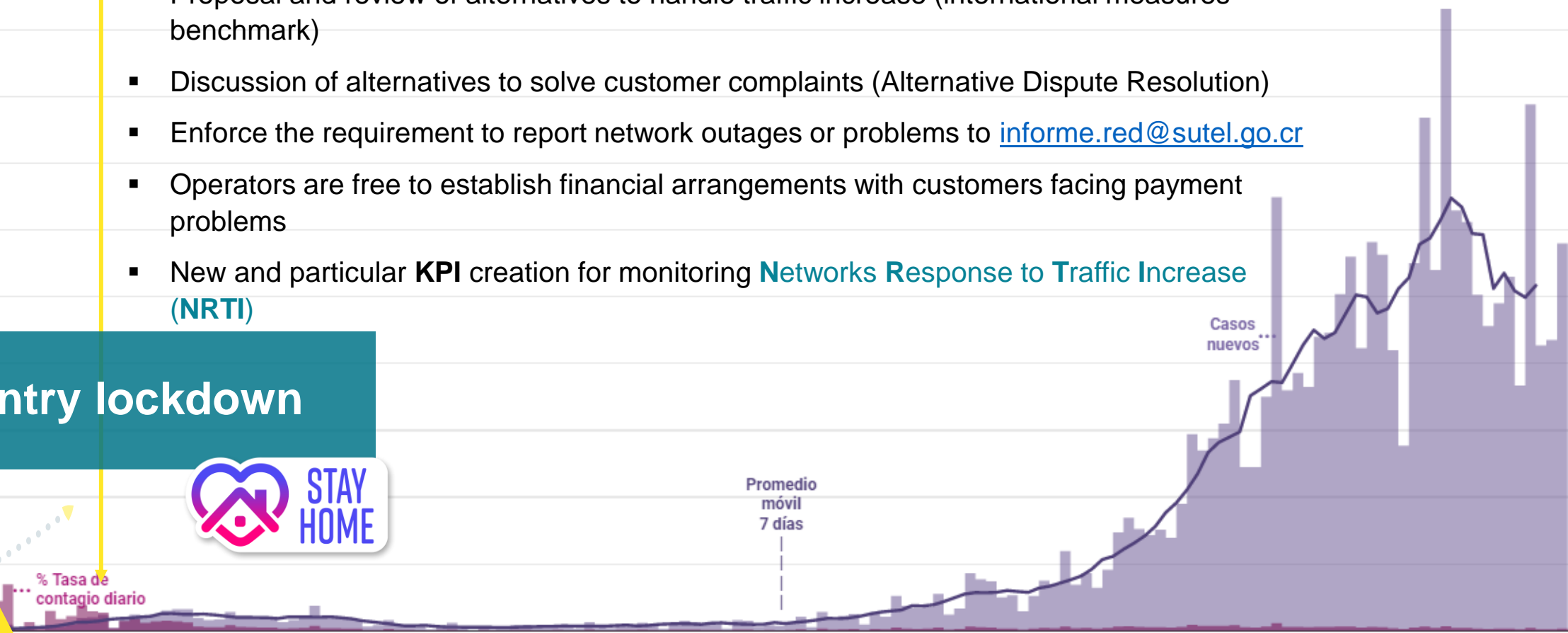
Country lockdown



% Tasa de contagio diario

Promedio móvil 7 días

Casos nuevos



11 meetings (April 1st-August 5) :

Highlights

May

- Request for emergency, health and education websites “zero rating” to mobile operators
- All operators increased their international capacity.
- **KPI (NRTI)** day by day monitoring on mobile and fixed networks (also monitor the peak hours interval)
- Issuance of regulatory measures to broaden and ease the contract options for telecommunications services (**RCS-128-2020**)
 - New options to subscribe telecommunications services (electronic signature, and signature over digital media)
 - Remote possibilities to modify subscriptions conditions (using phone, whatsapp, chats, web forms, among others)
 - User consent registration

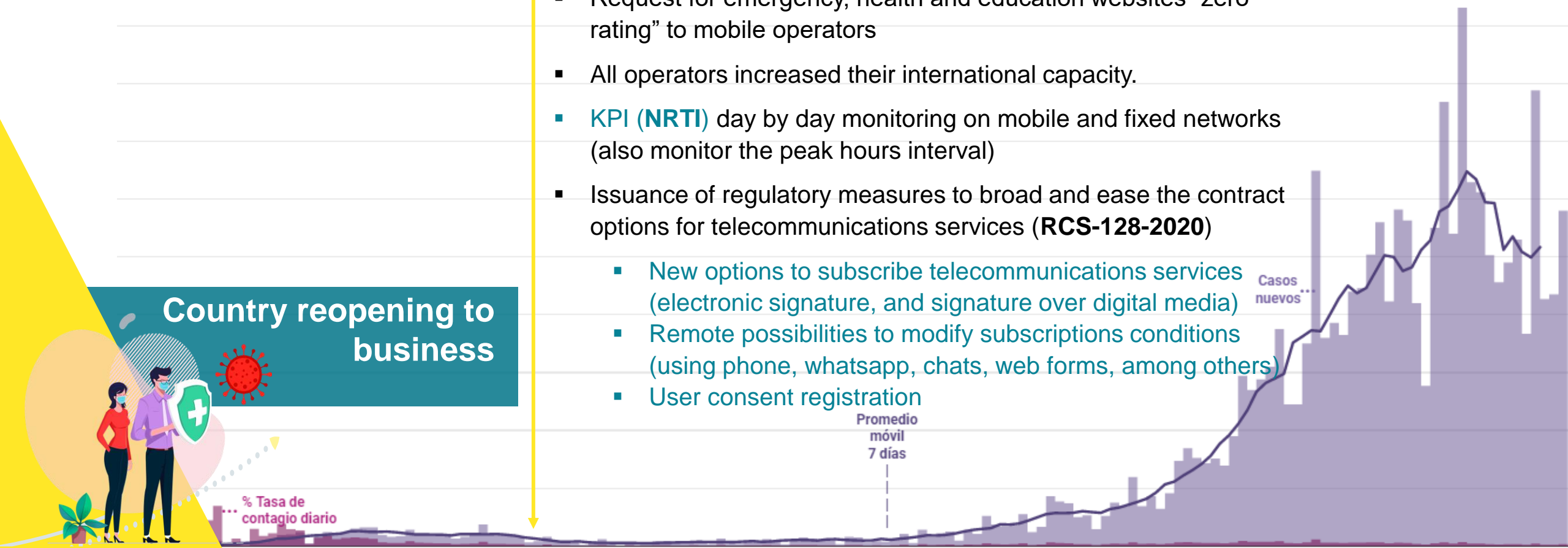
Country reopening to business



% Tasa de contagio diario

Promedio móvil 7 días

Casos nuevos



11 meetings (April 1st-August 5) :

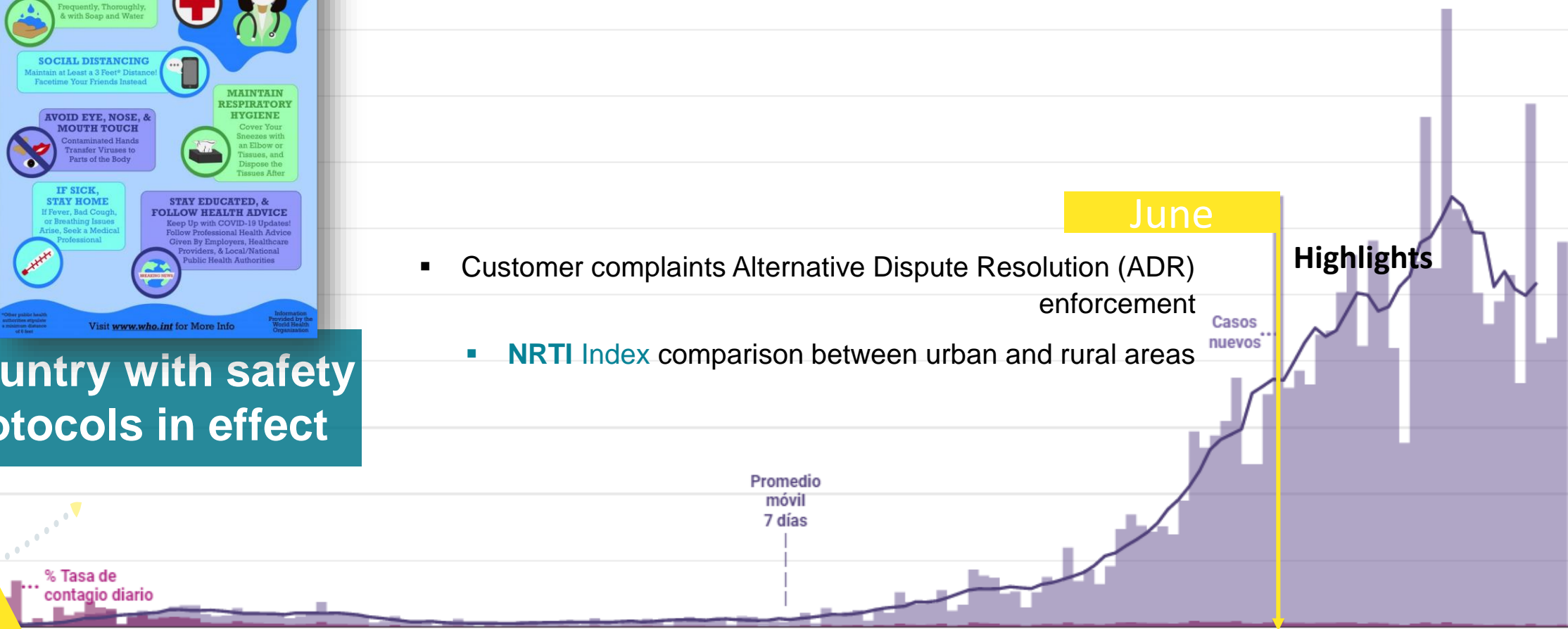


Country with safety protocols in effect

- Customer complaints Alternative Dispute Resolution (ADR) enforcement
- NRTI Index comparison between urban and rural areas

June

Highlights



 **Network Response to Traffic Increase Index**

Calculation: shows the ratio between a network indicator (i.e. downlink throughput) **measured** during peak hours to the average of the measurement, defined over a period (i.e. a day).



Scale: 1-100 (%)



Where is NRTII applied?

Applied to fixed and mobile networks



Fixed



Mobile



Benefits

- A simple and easy to understand index.
- A straightforward way of following up the response of the different networks over time.
- Aggregated indicator - not related to a specific network operator.
- Not directly related to QoS regulatory indicators.
- Measures the effectiveness of proposed actions to deal with traffic increase because of COVID-19.

NSMP: National system of measurement probes

<https://visorcalidad.sutel.go.cr/>

CLICK HERE

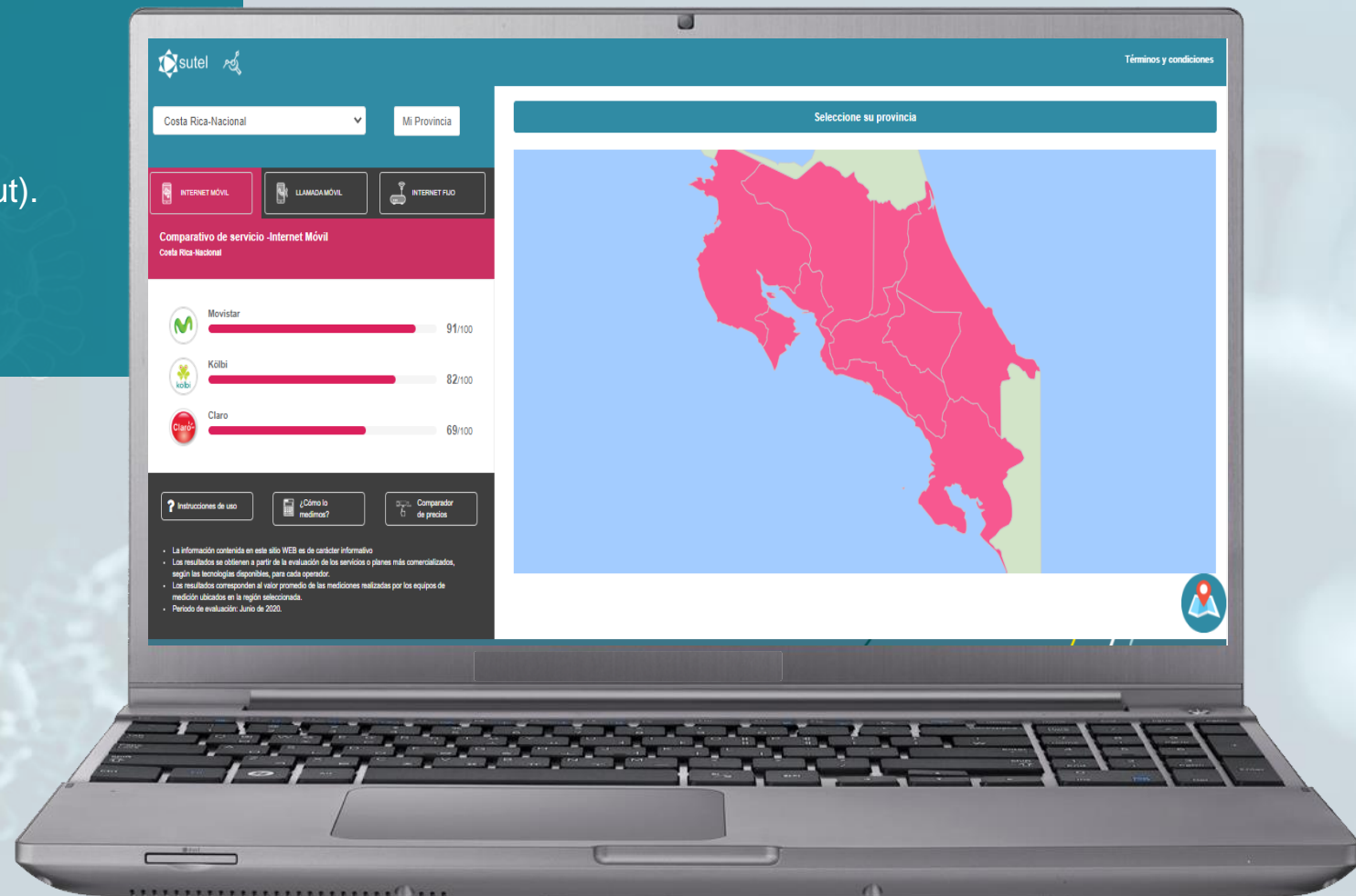
Continuous: 24/7 measurements (indicators: daily, weekly, monthly, yearly).

QUALITY VISOR



Conozca la calidad de servicio ofrecida por los operadores de telecomunicaciones en Costa Rica

- **Comprehensive results:**
 - 1-100% scale of different network KPI results.
 - Simple and advanced results display.
- **Evaluated KPI (local, international):**
 - Nominal Network Speed (uplink/downlink throughput).
 - Peak traffic hours.
 - Latency.
 - Network availability: Up/Down Time.

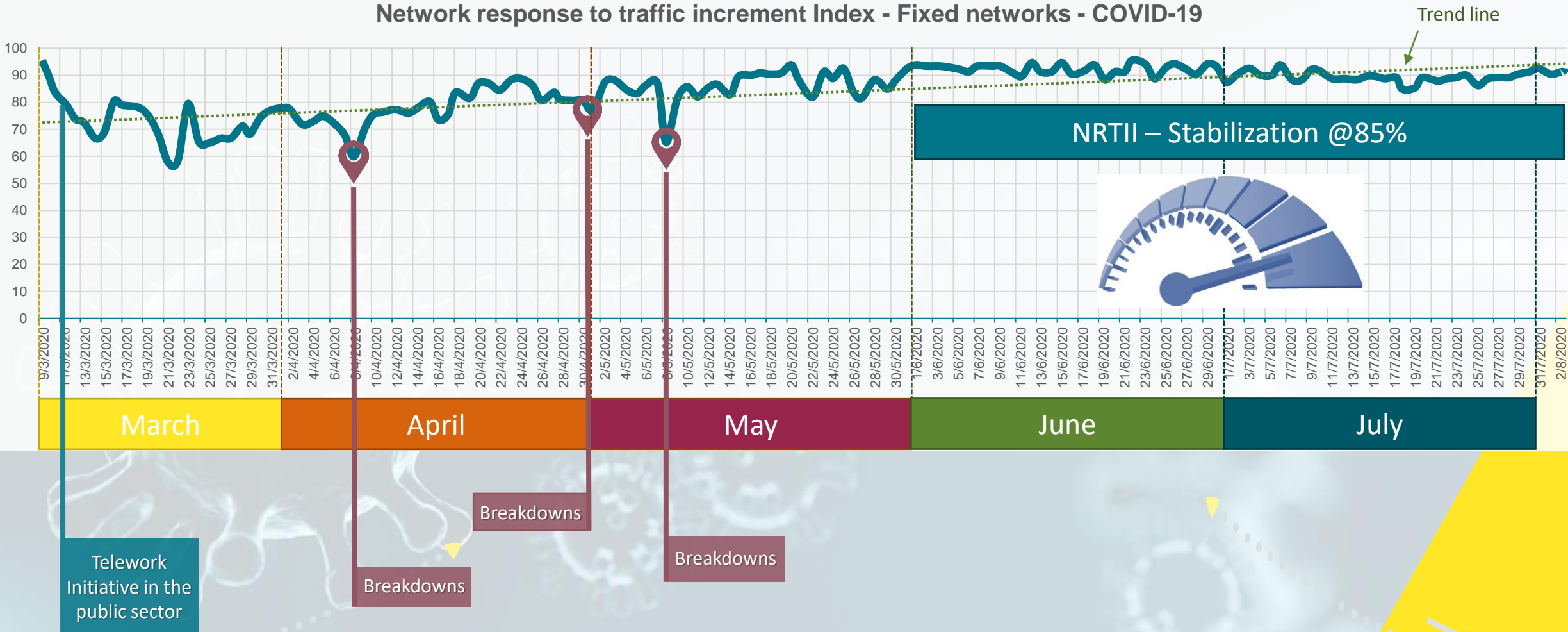


What is NSMP?



- **Nationwide:** More than 500 measuring probes in the country.
- **Far-reach:** Simultaneously measures all available network operators per site (panelist)
- **Independent:** The site is a common user not related to the operator or regulator.
- **Dynamic:** site selection
 - Higher density of clients.
 - Most operators available.
 - Time frame of measurements (1-year average, then it is changed).

Network response to traffic increment Index - Fixed networks - COVID-19

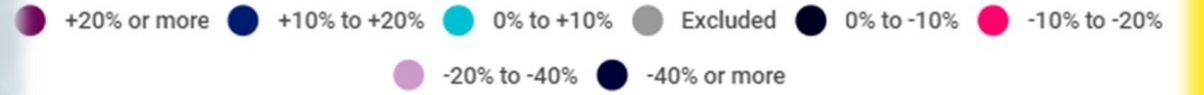
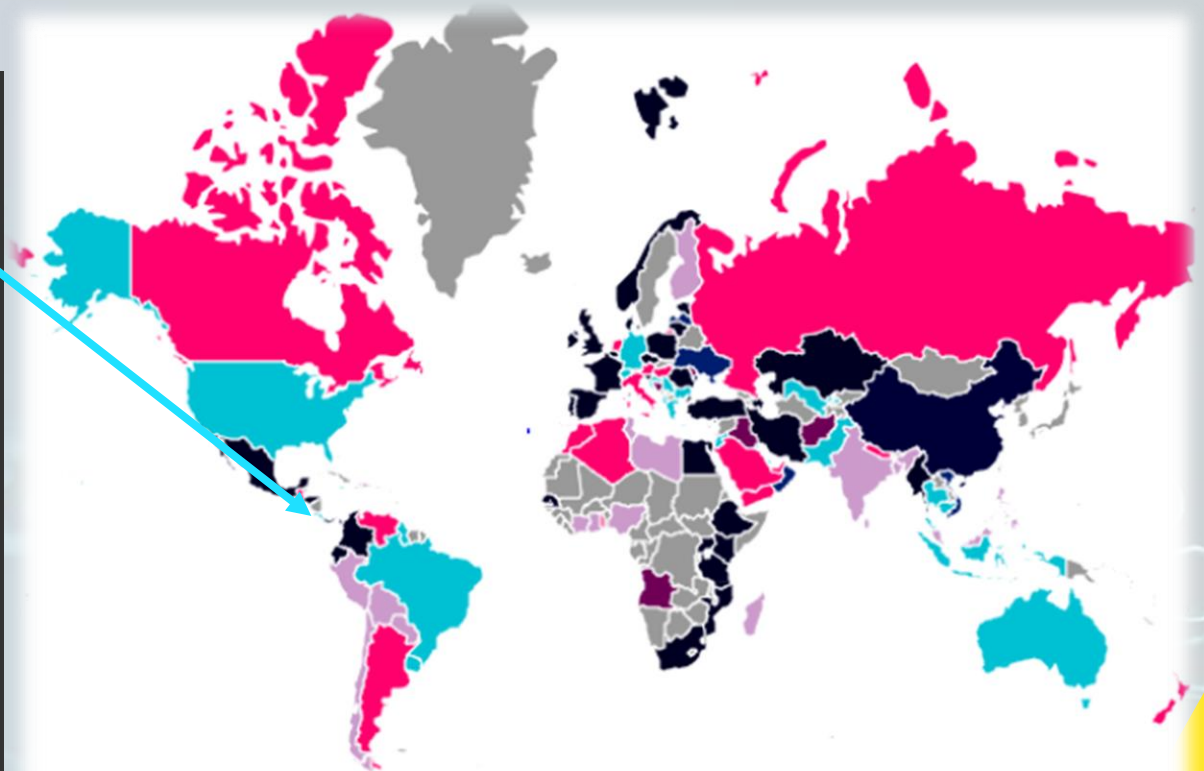


cable.co.uk

Central America

The region where speeds dropped by the greatest percentage overall was Central America, with an average drop of -26.03% during its combined lockdown periods. Only one of the six countries qualifying in this region experienced a rise (Costa Rica at +0.82%). Meanwhile, Panama (-48.99%), Guatemala (-14.30%), Honduras (-3.69%), Mexico (-2.35%), and El Salvador (-0.01%) all experienced drops in speed of varying severity.

- **Costa Rica**
- % Change
0.82%
- Lockdown Start
3/17/20
- Lockdown End
6/30/20
- Mean lockdown stringency
57.73
- Number of speed tests
93,428
- Download during lockdown
20.29Mbps
- Download outside of lockdown
20.13Mbps



[CLICK HERE](#) 

<https://www.cable.co.uk/broadband/speed/broadband-speeds-covid-19-lockdown/>



Q&A





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Thank you!

ITUWebinars

Quality of Service Development Group Webinar Series

*Episode #1: Network performance,
QoS and QoE in the light
of a global pandemic*

20 August 2020
16:00 - 17:30 CEST

<http://www.itu.int/go/QSDG-Webinar-01>



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