

A microscopic view of several COVID-19 virus particles. The particles are spherical with a textured surface and numerous spike-like projections extending from them. They are set against a light blue background with a bokeh effect of out-of-focus light spots.

Anticipating what comes next: COVID-19 and LATAM Healthcare Markets

May 13, 2020 – *Prepared for FIFARMA*



DUCKERFRONTIER

Agenda

LATAM Macroeconomic Scenarios

COVID-19 Impacts on Access and Reimbursement: What Comes Next?

- Impact Of COVID-19 On Healthcare Funding in LATAM*
- Evolving Changes To Patient Care Pathways in the Region*
- Key Reimbursement Risks*

Impacts on Digital Health Strategies in the Region

- The Role of Telehealth in a Post-COVID Environment: Challenges and Opportunities*
- How Shifts in Healthcare Ecosystem Will Impact Clinical Data Aggregation and Analysis in LATAM*

Q&A

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Q&A

Three key variables will explain economic trajectory over the short and medium term

Key economic drivers

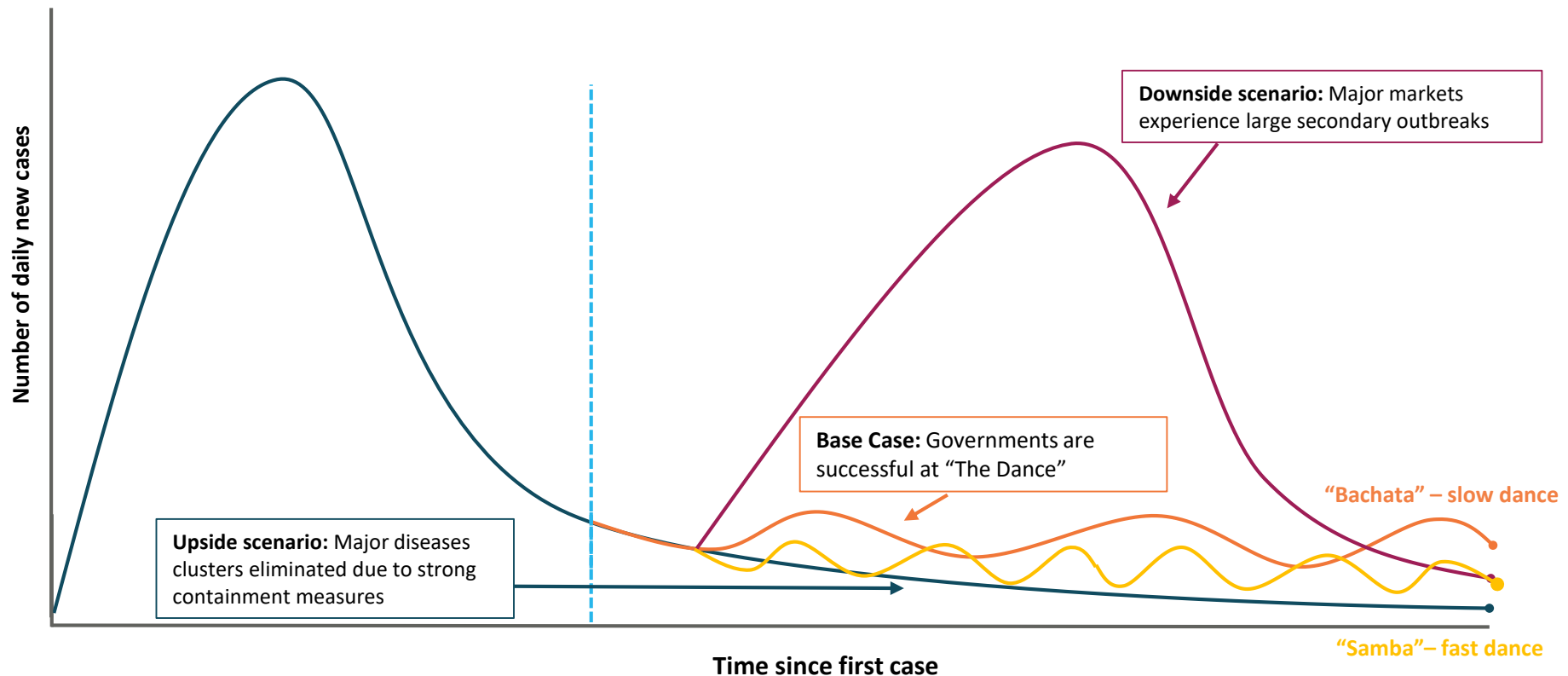
- 1 Recurrence, length, and stringency of social distancing measures (SDM)
- 2 Government stimulus during and after SDMs
- 3 Timing of treatment and vaccine

1. “Dancing” with COVID-19 has become the base case scenario in most countries



COVID19 scenarios leading up to widespread vaccination

Virus containment approaches inspired by Tomas Pueyo's analysis [*Coronavirus: The Hammer and the Dance*](#)

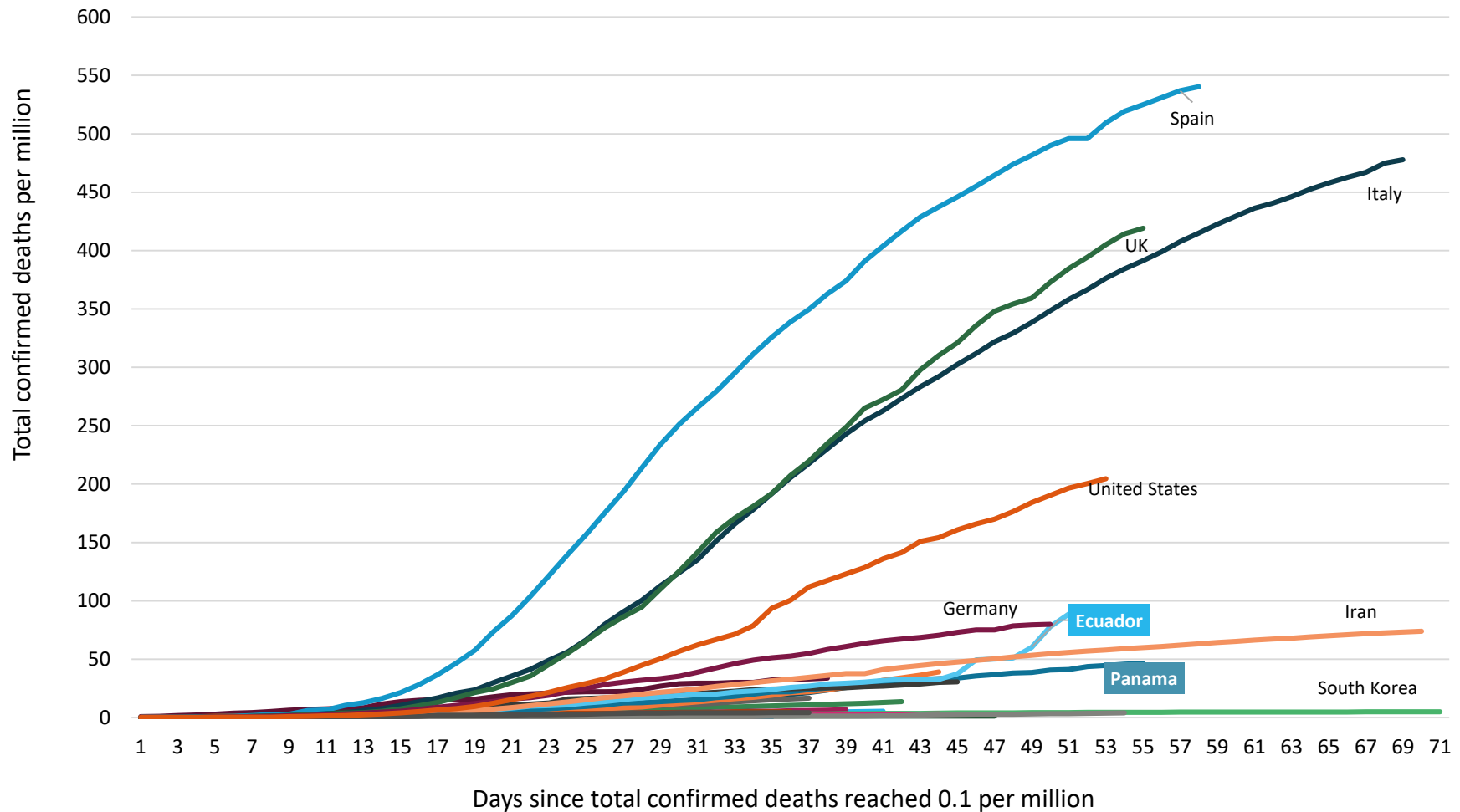


Good “dancing skills” can limit virus spread, reducing the need for and cost of SDMs



Key “dancing skills”		Variables & Importance	“Bachata” – slow dance	“Samba” – fast dance
1	Early reaction (and dancing with the right tempo)	<ul style="list-style-type: none"> - Early border controls: to stop importation of cases - Early SDM: to stop domestic contagion (e.g. closing of schools, mass gatherings, release of SDM guidelines) 	<p>Slow reaction leads to rapid spike in number of cases</p> <p>Reopens the economy too quickly</p>	<p>Rapid reaction keeps case count under control</p> <p>Reopens the economy at the right pace</p>
2	Good information	<ul style="list-style-type: none"> - Testing (1): To identify and isolate cases - Tracing: To identify and isolate suspected cases - Testing (2): To identify people with antibodies and allow for targeted relaxation of SDM 	<p>Lack of information leads to indiscriminate and widescale restrictions during containment and relaxation phases</p>	<p>Good information allows for more targeted measures during containment and relaxation phases</p>
3	Treatment capacity	<ul style="list-style-type: none"> - To reduce contagion: PPE for healthcare workers, masks, gloves, disinfection - To reduce morbidity: strong primary care system; # hospital beds (normal and ICU); #ventilators 	<p>Poor healthcare infrastructure and resources lead to higher contagion and morbidity rates</p>	<p>Strong healthcare infrastructure and resources lead to lower contagion and morbidity rates</p>
4	Endorsement from local authorities	<ul style="list-style-type: none"> - Influences adherence to WHO and local healthcare guidelines, and hence contagion rates - Influences trust during relaxation phase 	<p>Conflicting orders reduce adherence to SDM guidelines</p> <p>Activity stays muted during relaxation of SDM amid fears of contagion</p>	<p>Greater alignment increases adherence to SDM guidelines</p> <p>Activity picks up faster during relaxation of SDM if healthcare criteria dominates</p>

LATAM has so far avoided Europe and US impact levels, but beware of under reporting of cases



Production and distribution of treatment and vaccine could prove challenging for LATAM



Treatment

Vaccine

Upside (15%)

- Effective treatment & moderate access by Q3 2020

- Moderate access by Q3 2021

Base case (55%)

- Effective treatment & moderate access by Q4 2020

- Moderate access by Q4 2021

Downside (30%)

- No effective treatment found

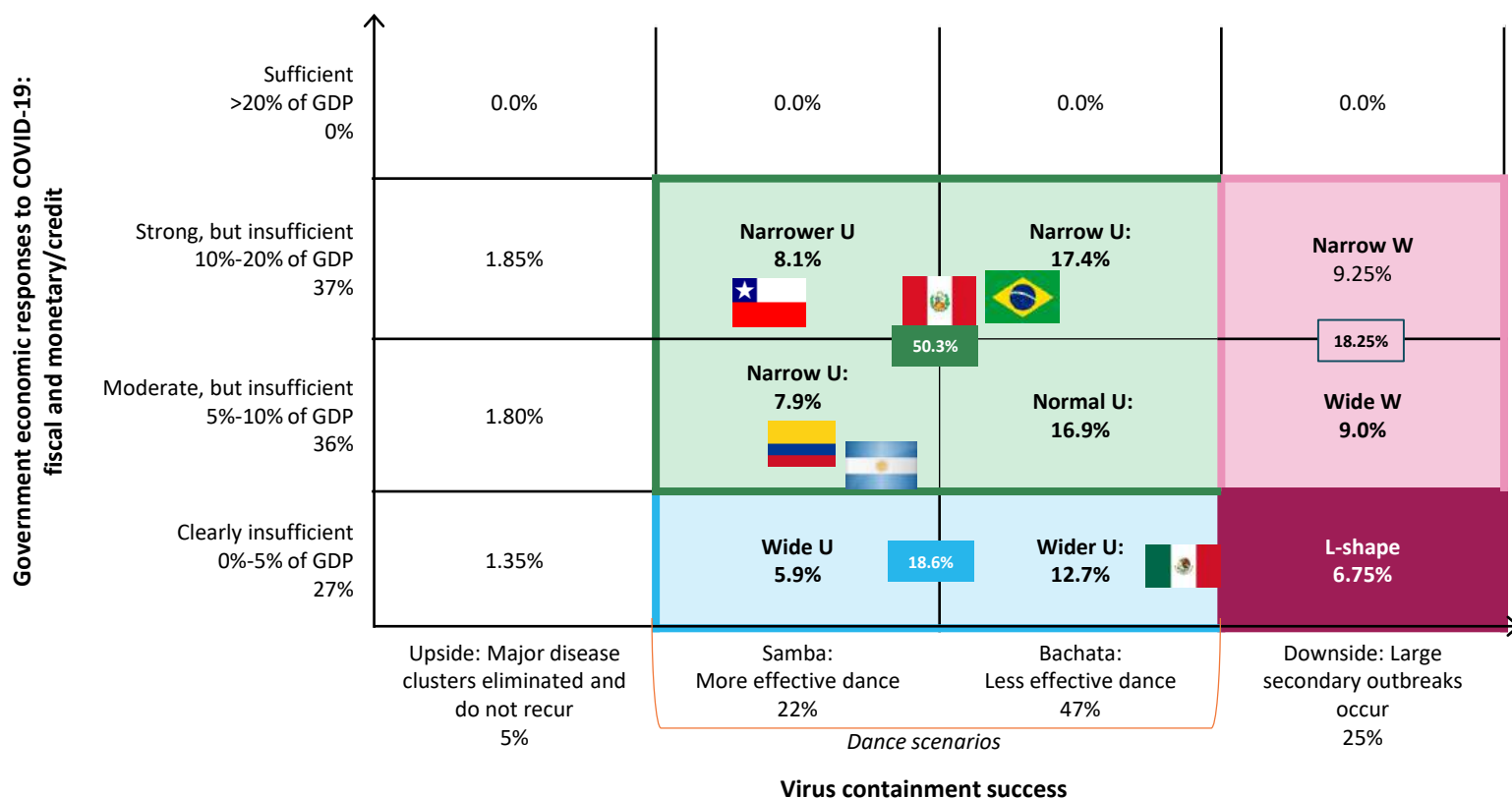
- Moderate access by Q4 2022 or no vaccine found

Access definitions		Low access	Moderate access	Good access
Treatment	% of population	5%	25%	50%
Vaccine	% critically sick patients			

However, the region will fall short of required stimulus to mitigate the impact of SDMs



Scenarios and likelihoods for Latin America's economic growth outlook*



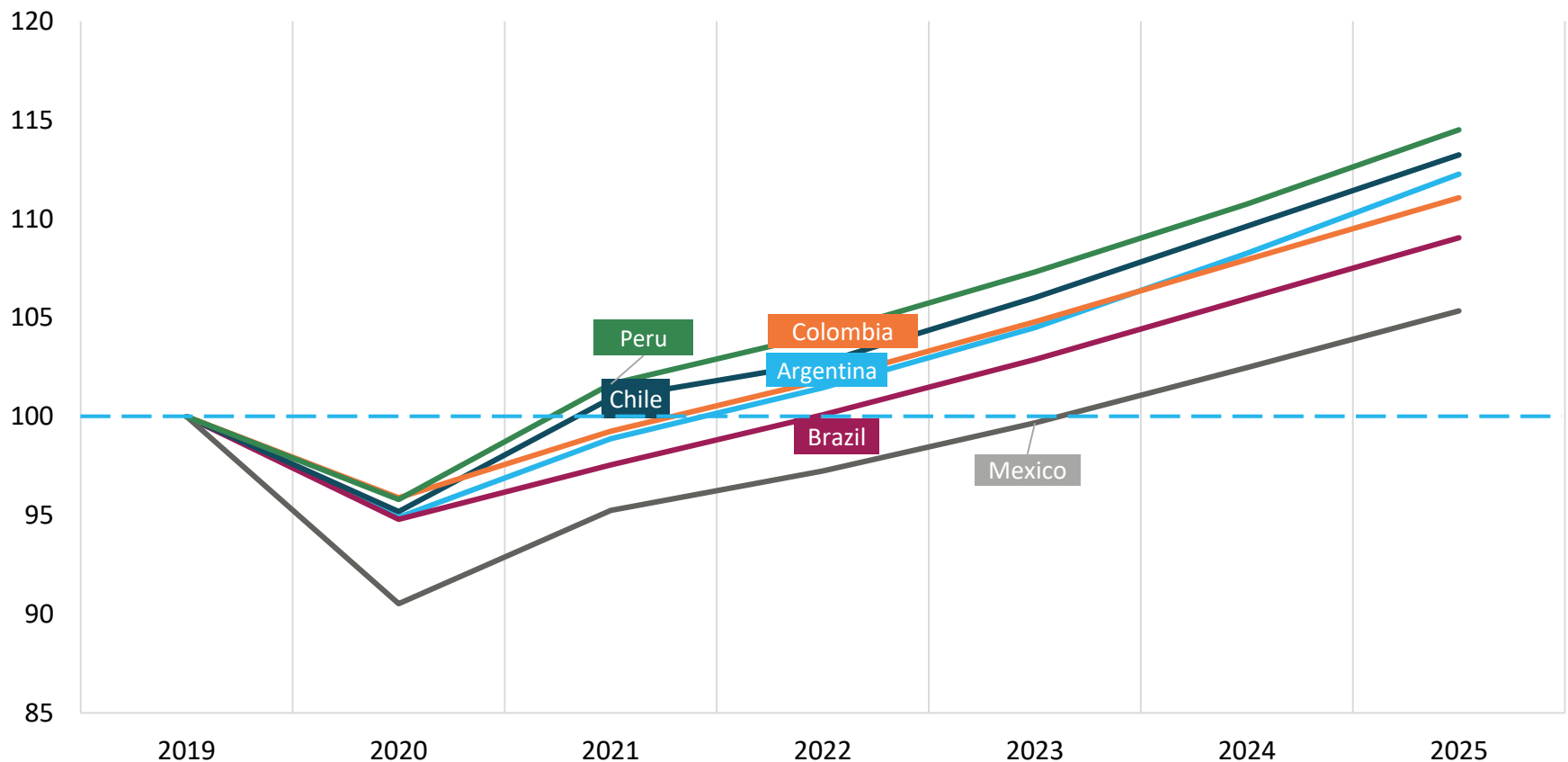
*Likelihoods reflect regional weighted average of individual country probabilities for each scenario (weighted by GDP in dollars)
Flags reflect most likely scenario for each country

Economic forecasts

Strength: Mexico will be the last to regain 2019 levels among top markets



GDP levels index, Real LCU; 2019=100



We expect currencies to stabilize from current levels, but volatility will persist



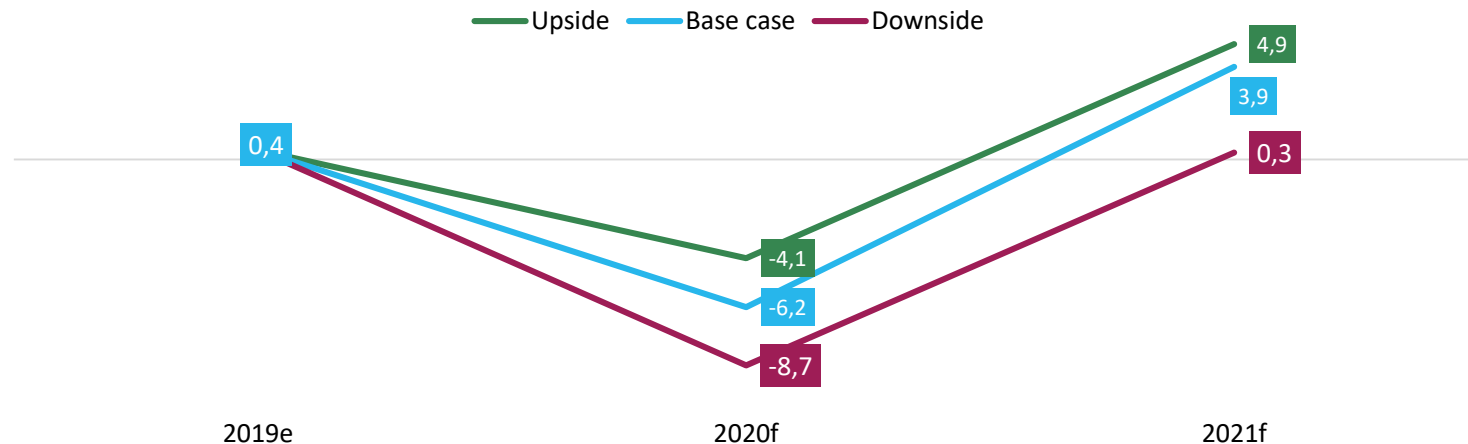
LCU:USD exchange rates – Evolution since January 1st and 2020 forecasts

Currency	Jan 1	May 4	Average-of-year DuckerFrontier	End-of-year consensus range	Diff between max and min
CLP	735.9	838.6	822.2	784–820	5%
COP	3,274	3,966	3,800	3,500–4,200	20%
PEN	3.26	3.38	3.52	3.35–3.60	7%
BRL	4.0	5.5	4.95	4.32–5.90	36%
MXN	18.9	24.1	22.30	20.0–26.25	31%
ARS	59.9	66.8	70.90	71.59–100.00	40%

Companies should rely on scenario planning more than ever



Real GDP, %YOY – Weighted Regional Average Latin America



Most likely Best Case and Worse Case scenarios for each country (i.e. excludes extreme scenarios)

	Brazil	Mexico	Colombia	Argentina	Peru	Chile
Best case*	Narrow U (30%)	Normal U (15%)	Narrow U (22%)	Narrow U (22%)	Narrower U (21%)	Narrower U (27%)
Base case	Narrow U (30%)	Wider U (40%)	Narrow U (22%)	Narrow U (22%)	Narrow U (24%)	Narrower U (27%)
Worse case**	Narrow W (15%)	L-shape (25%)	Wide U (14%)	Wide W (11%)	Normal U (16%)	Narrow U (18%)

*All upside scenarios assumes effective treatment & moderate access by Q3 2020, and moderate access to vaccine by Q3 2021

**All downside scenarios assume no effective treatment found, and moderate access to vaccine by Q4 2022 or no vaccine found

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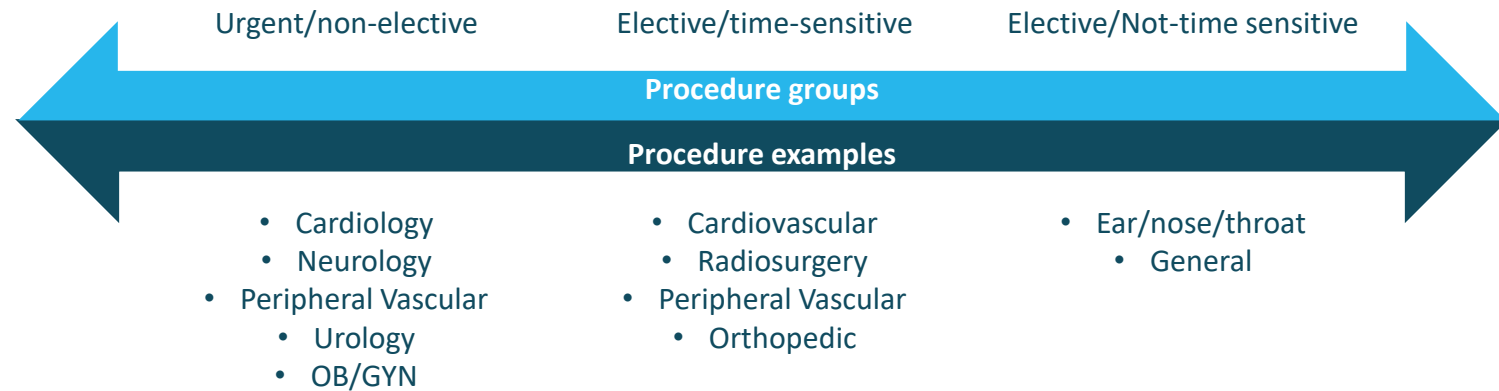
Impact on Funding

A qualitative framework is necessary to answer the question of funding impact

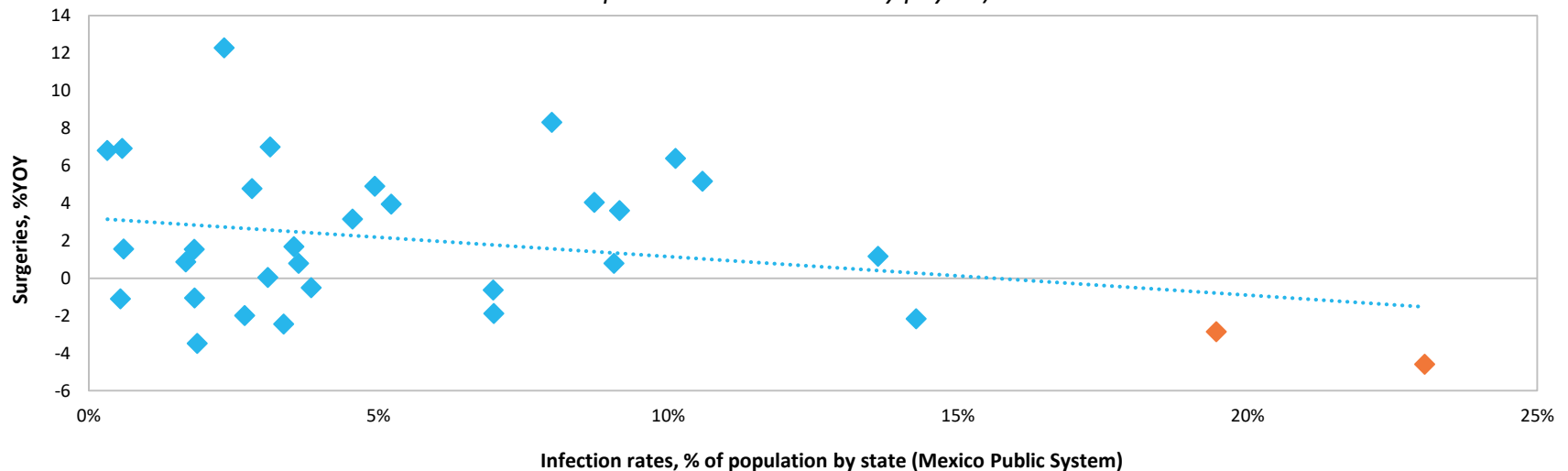


	Infection rates	Fund injection	Fiscal Space	Savings from elective procedures
Argentina	Low	Large	Very low	High
Brazil	Moderate	Moderate	Moderate	High
Colombia	Low	Low	Low	High
Chile	Low	Very High	Very High	High
Mexico	Moderate	Low	Moderate	High
Peru	High	Low	High	High

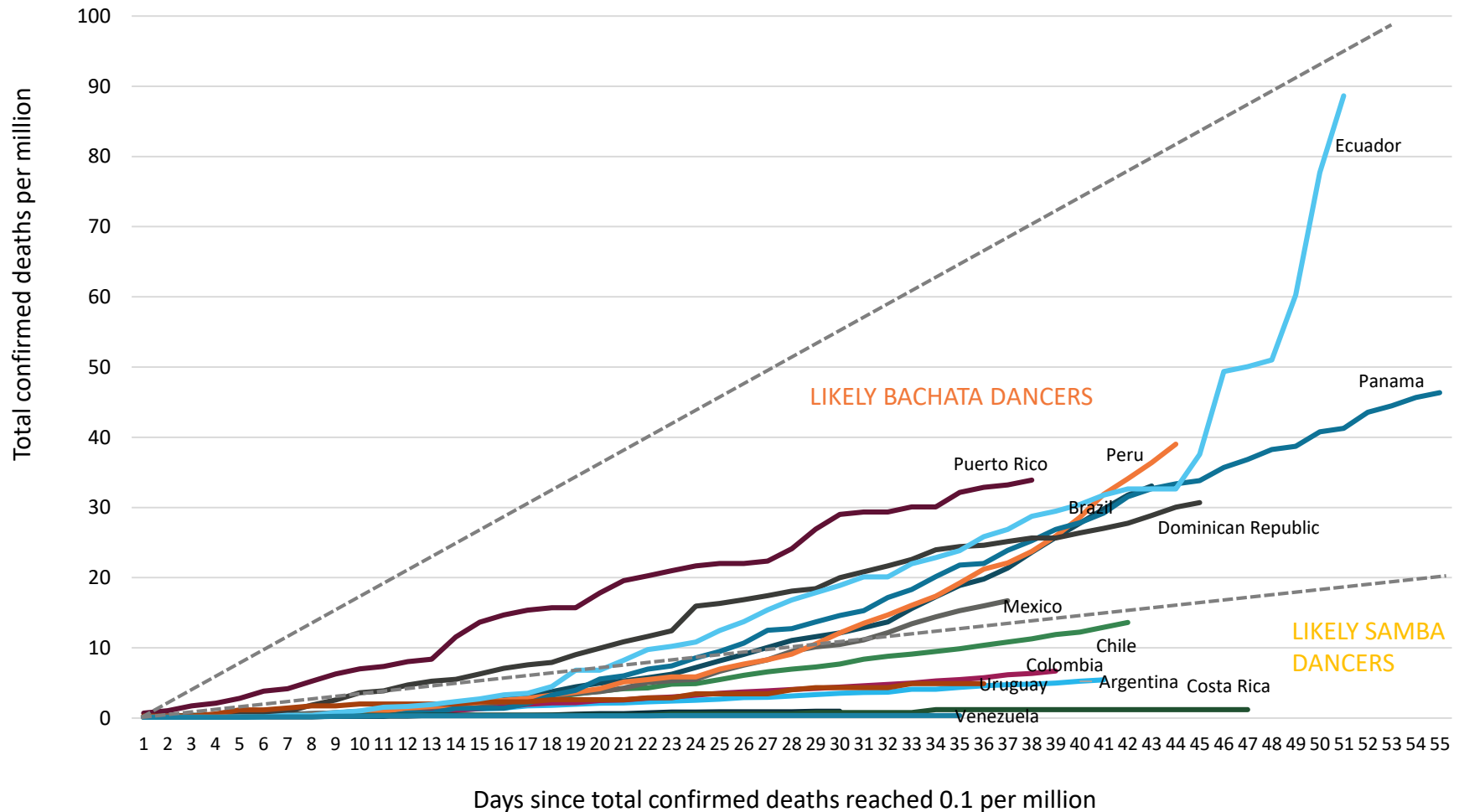
Timing of elective procedure recovery will be critical for the entire healthcare system



Historic relationship between infection rates by H1N1 at the state level in 2009 and surgical procedure volumes in Mexico (includes all public and social security payers)



Argentina, Colombia, and Chile have been more effective at virus containment than Brazil and Mexico



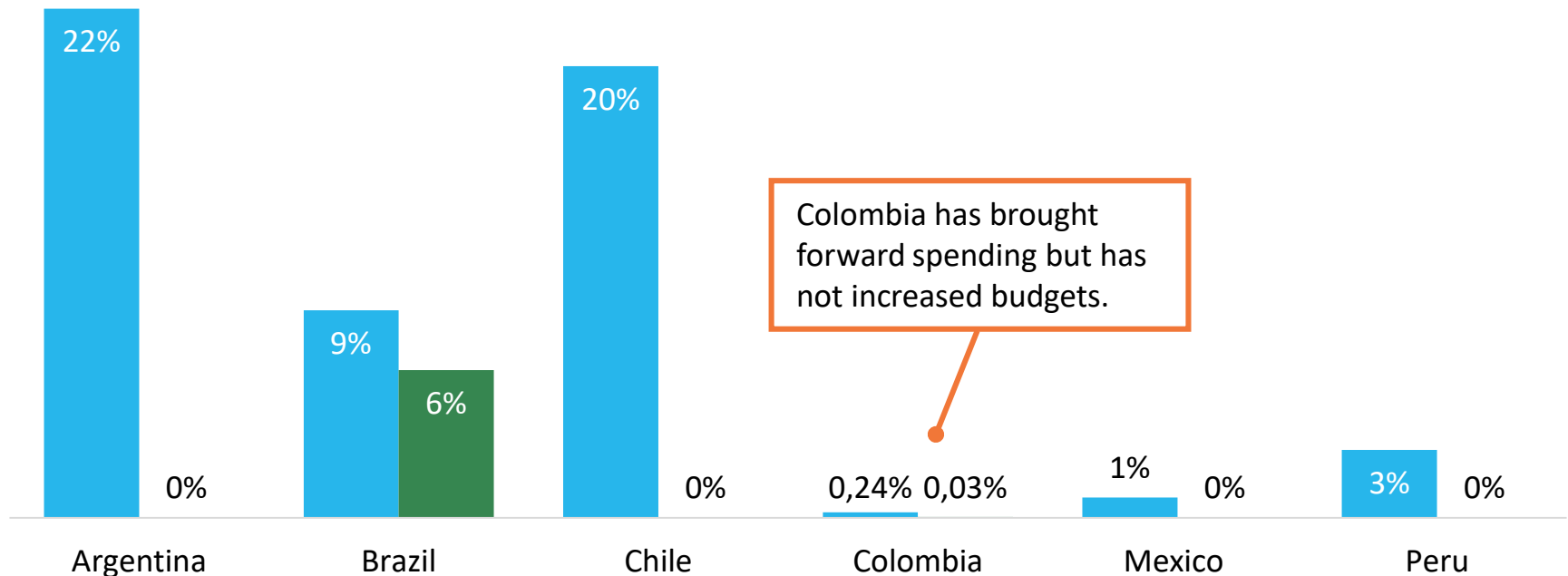
Governments have taken different approaches to emergency funding injections



The key challenge remains that many payers are actually saving money in the current scenario

Healthcare funding injection for COVID-19 as a % of healthcare spending

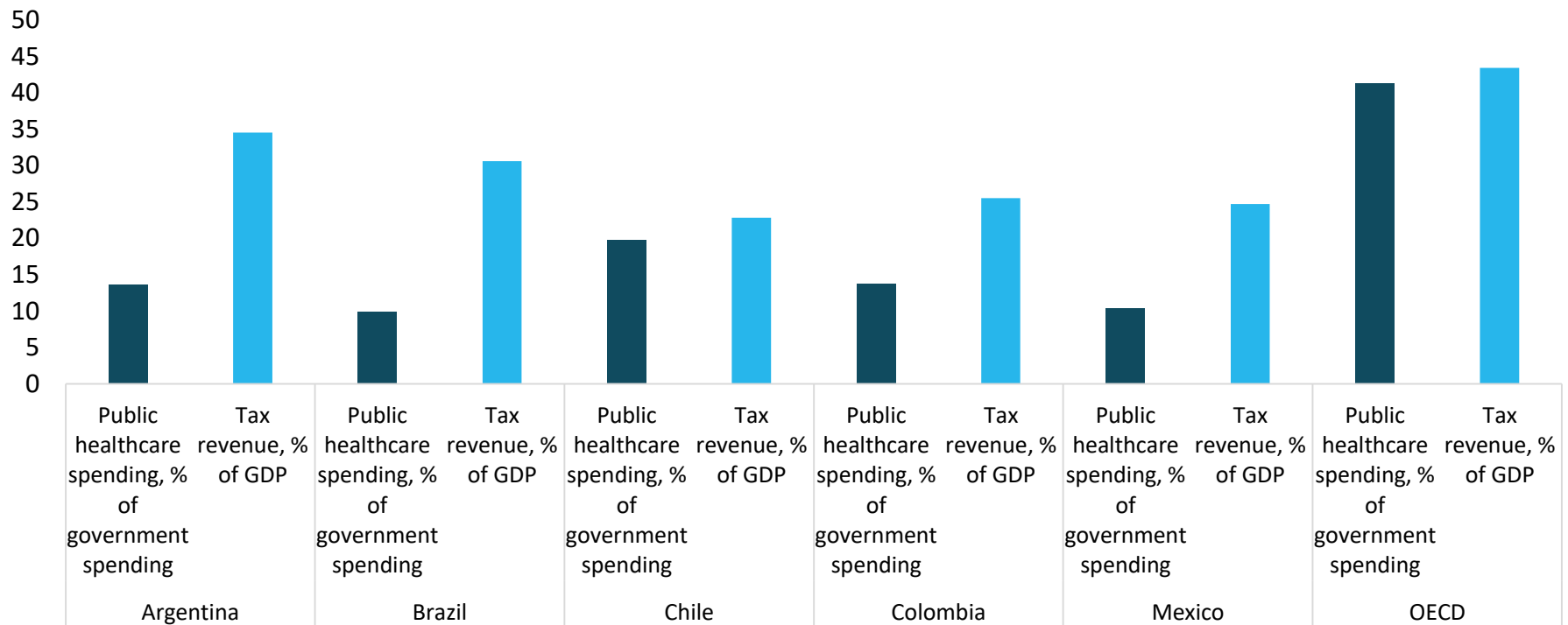
■ Public funding injection ■ Private funding injection



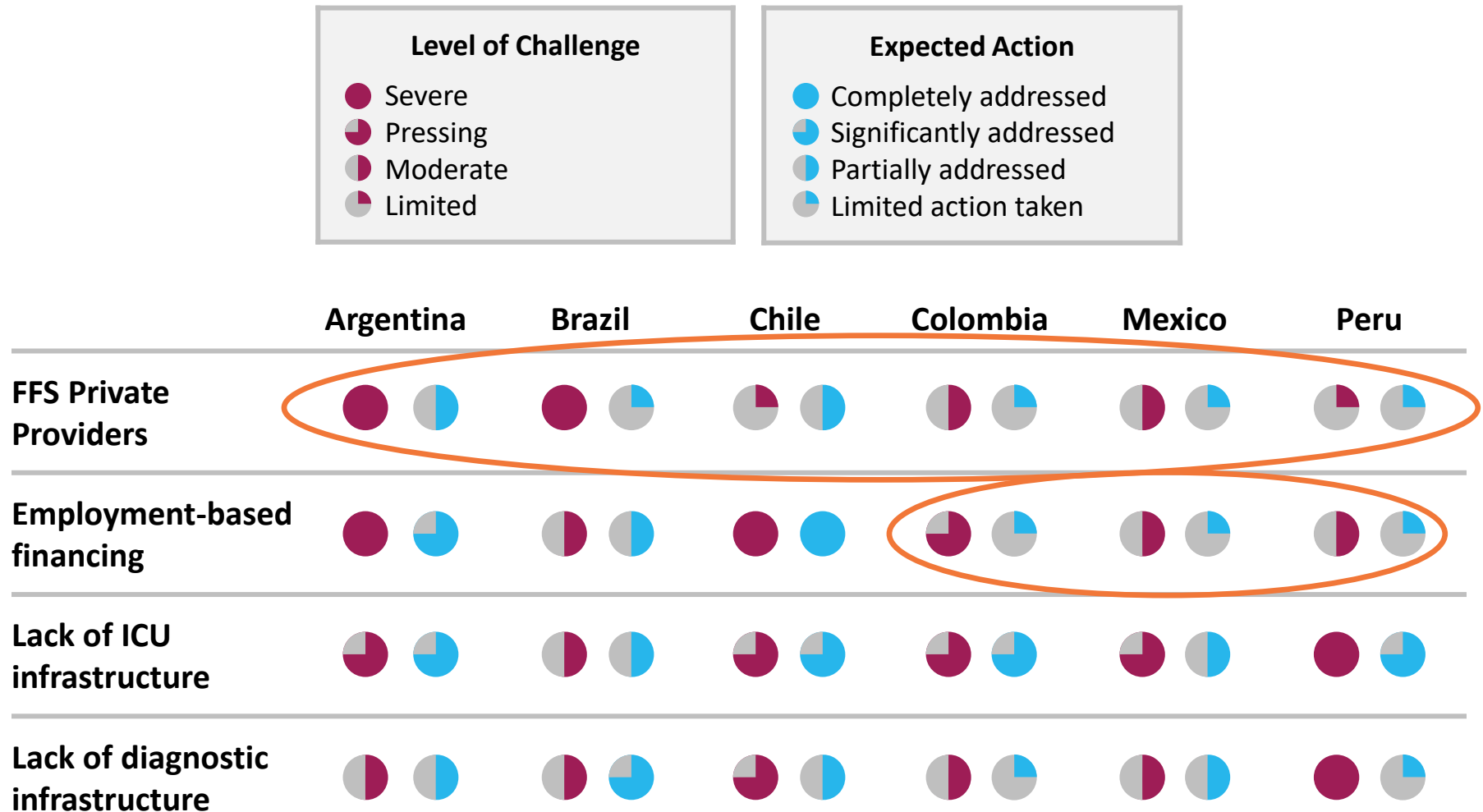
But sustainability of these funding injections is questionable in some cases



Some countries will need to increase tax intake, while others will have to rely more heavily on improving efficiency of current spending



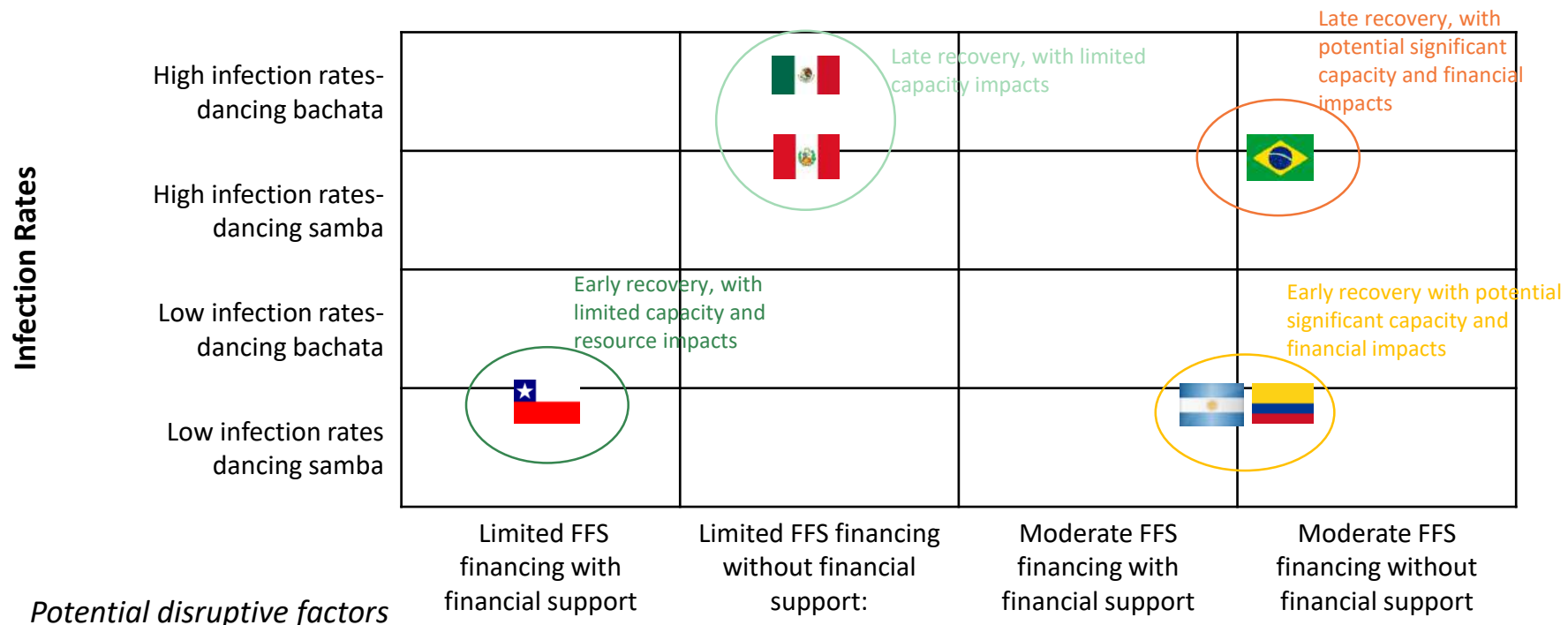
However, we believe the most important factor is provider financing sustainability



Infection rates and overall financing design will determine the timing of elective activity recovery



Framework for planning impact on elective activities in healthcare sector



Subsequent strategic implications are stark:



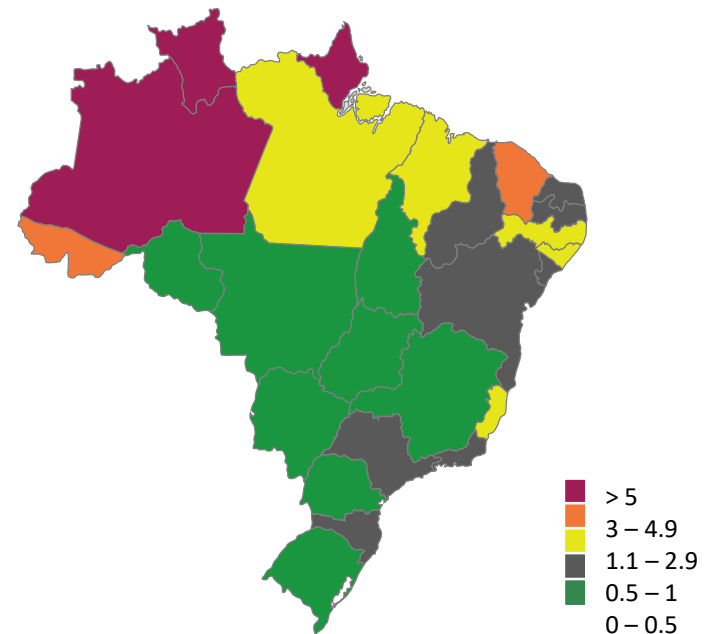
Demand recovery and impact on patient journey will differ significantly across markets

Key events to date

- Chile announces return of elective procedures
- Uruguay announces return of elective procedures
- Colombia announces return of elective procedures
- Brazil's ANS recommends continued delay of elective procedures
- IMSS signs PPP contracts to provide elective procedures in private hospitals

In high infection rate countries, the importance of a subnational strategy will be magnified

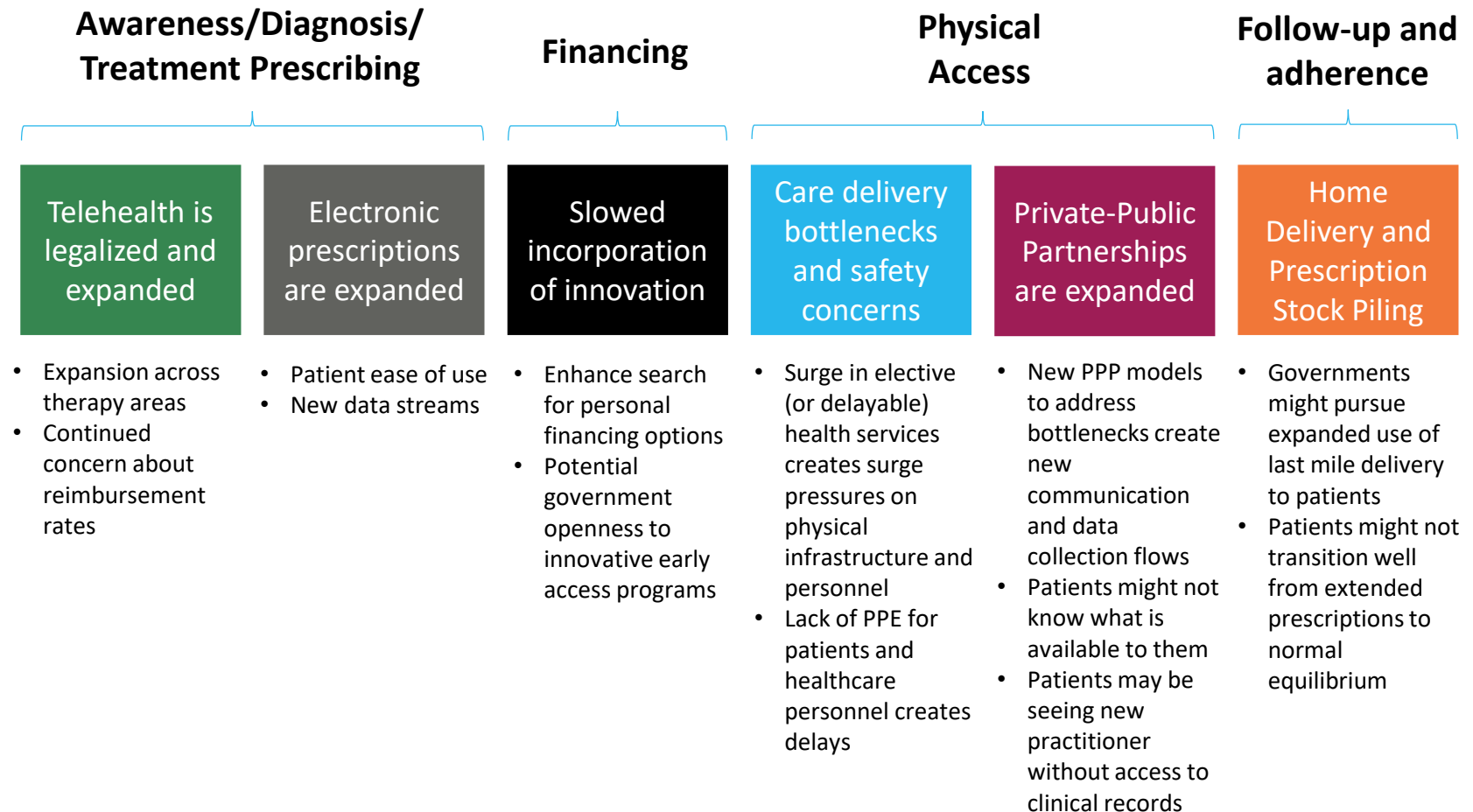
*Estimated critical COVID-19 cases per public sector ICU Bed
(As of May 5)*



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Impacts on Patient Care Pathways

The patient journey impact will fall into several buckets

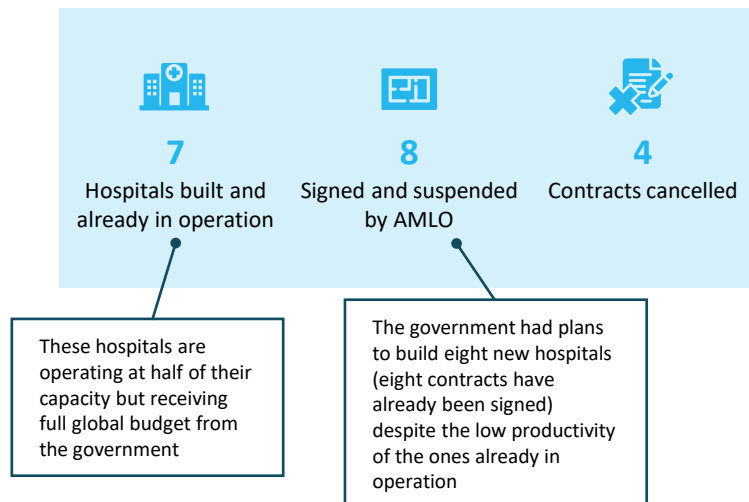


Public-private cooperation is being discussed around the world to address demand surge



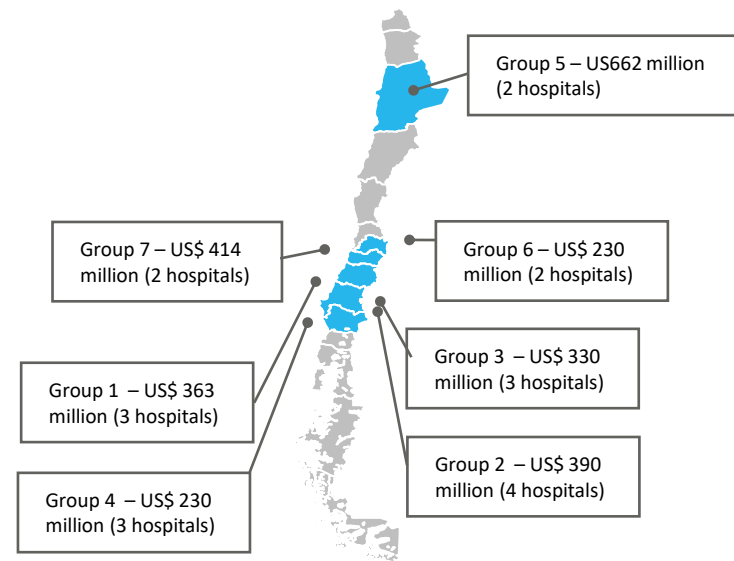
Markets such as Mexico and Brazil where there have been barriers for PPPs could see a takeoff

Current situation of PPP hospitals in Mexico, by status



Other markets where there was already growth might see a broadening and acceleration

Planned PPP hospitals in Chile – by region and total expected expenditure

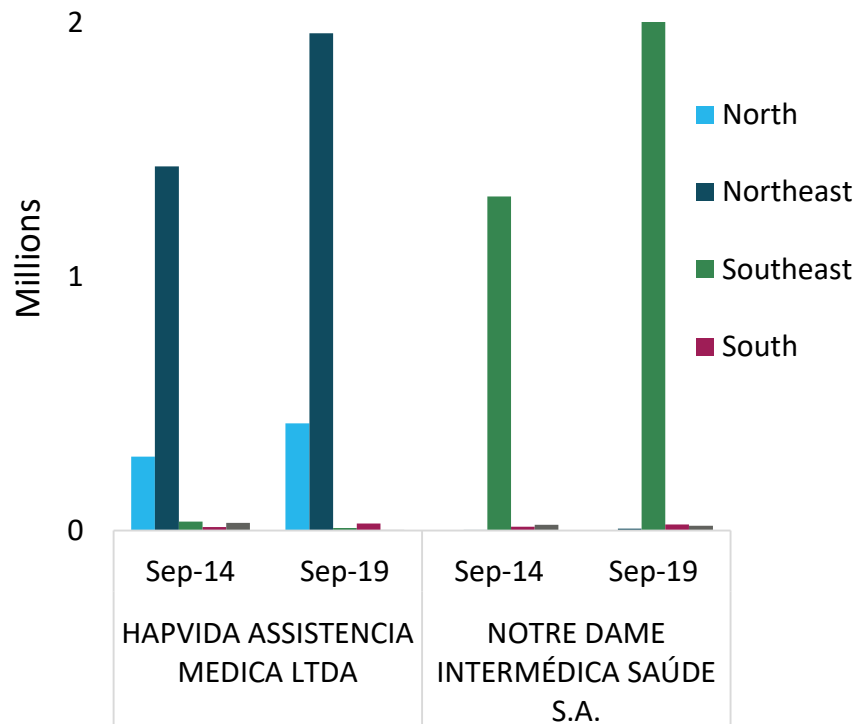


Fintech financing of healthcare is likely to continue to emerge for several reasons



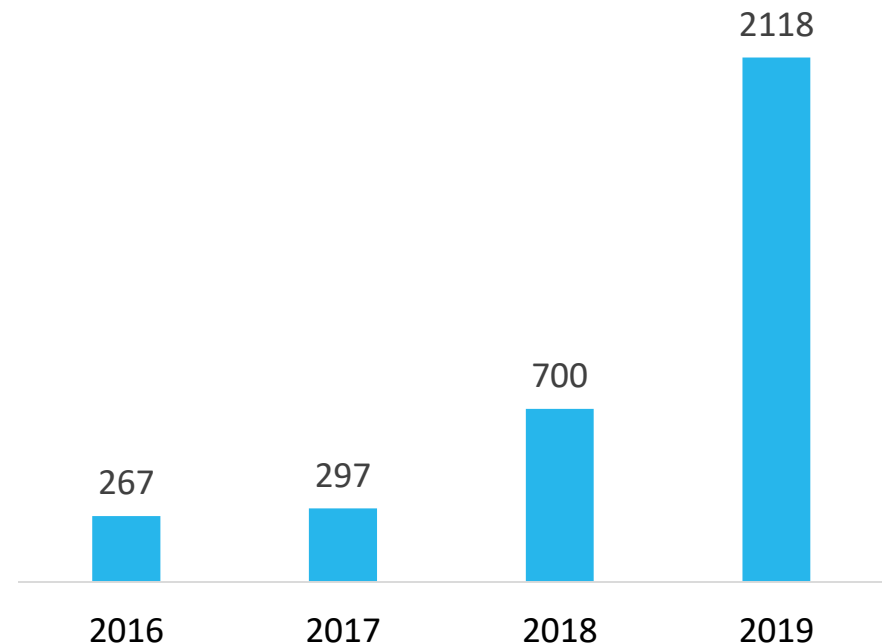
Low-cost payers and providers will accelerate expansion across LATAM

*Brazil beneficiaries by region by insurance provider
(key low cost insurers being highlighted)*



Fintech will remain a focus of investment within the region

Value of venture capital fintech investments in LATAM (US\$ millions)



Source: Statista

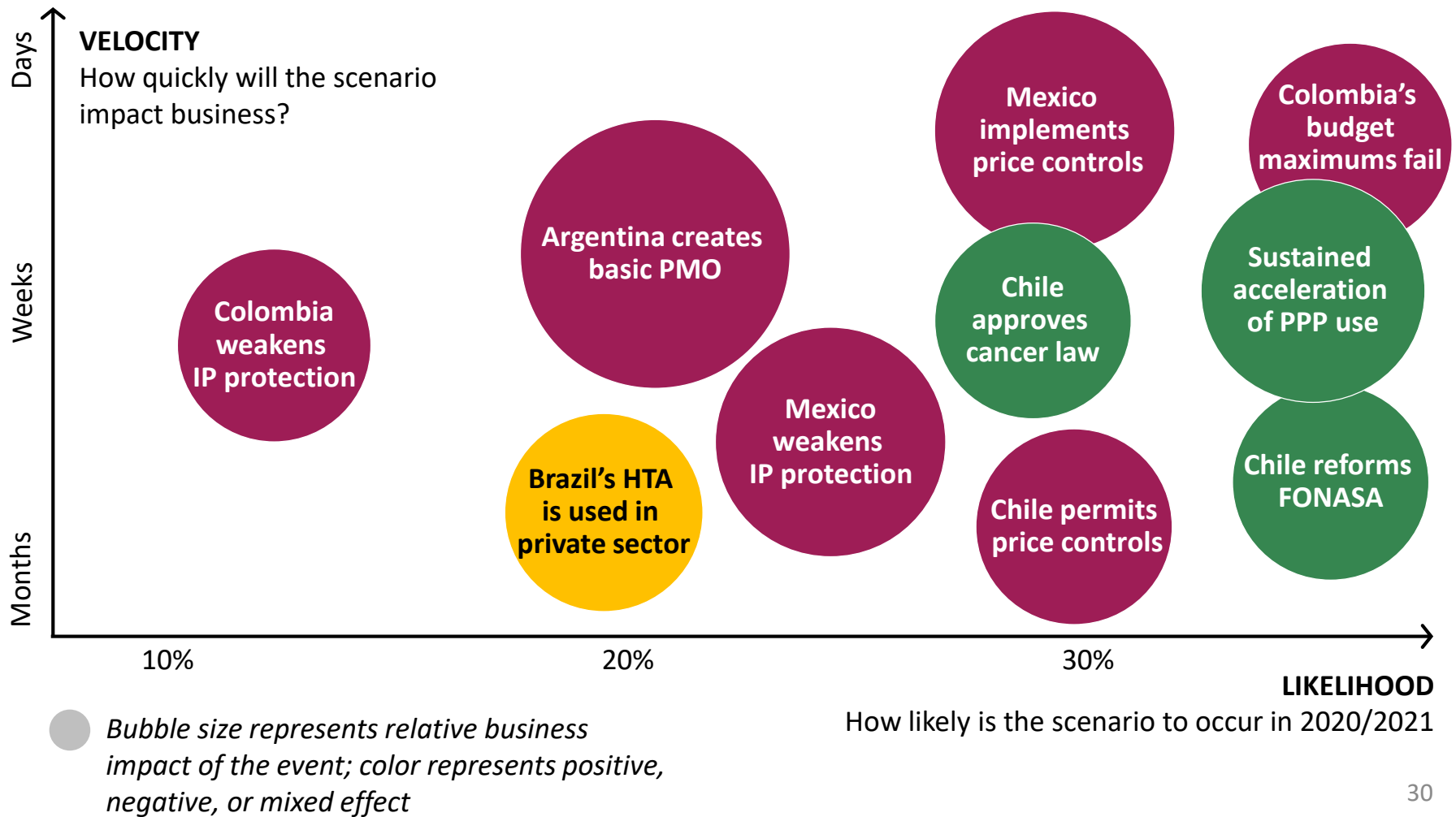
Reimbursement risks

The impact on pre-existing trends will be significant...



	Cost-focused Trends	Access-focused Trends	Quality-focused Trends
Accelerate	<ul style="list-style-type: none"> • Investment in primary care • Reduced budgets for sanitary bodies/delayed marketing authorization • Centralized procurement 	<ul style="list-style-type: none"> • Use of opex budgets to procure capital equipment • Easing of restrictions on imports without local sanitary registration • Digitization of health services 	<ul style="list-style-type: none"> • Data interoperability
Delay	<ul style="list-style-type: none"> • Investment in HTAs/Discussion on cost-benefit analysis metrics 	<ul style="list-style-type: none"> • Growth of full coverage private insurance 	<ul style="list-style-type: none"> • Seeking of value-based contracting • Leveraging of existing clinical data to drive insights • Implementation of quality metrics
Cancel Out	<ul style="list-style-type: none"> • Freezes on infrastructure spending 		
Renew	<ul style="list-style-type: none"> • Weakening of IP protection • International centralized negotiations/tenders 	<ul style="list-style-type: none"> • Use of PPPs to build infrastructure and contract services 	

Risks will continue to evolve across the region

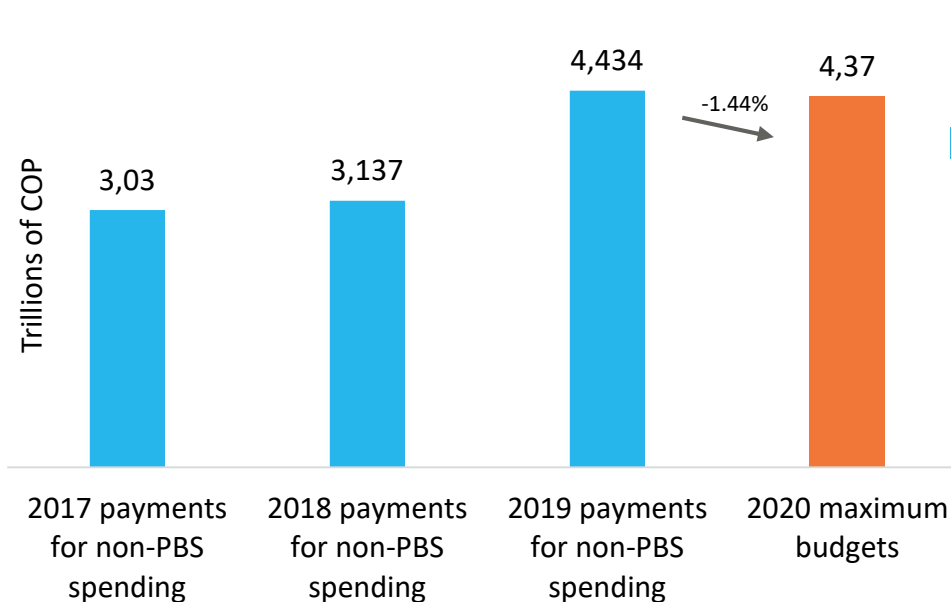


But a few specific risks present the largest downside



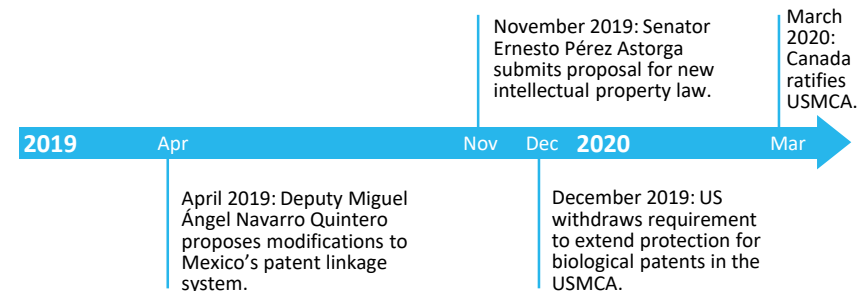
Collapsed fiscal space in Colombia means the implementation of new budget ceilings could be in jeopardy

Total non-PBS budget passed to EPSs and IPSs by year (maximum budget for 2020)



Mexico's new proposed intellectual property law poses a rising risk amid a contraction in resources and hardening of administration

Key recent timeline of Mexico IP legislation action



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Role of Telehealth

Expanded investment in digitalization will shift priorities



	Current Standing on Key Components of Digital Health Readiness						
	Digital Health Strategy	Interoperability Strategy	EMR Strategy	Data Protection Law	Specific Public Digital Health Body	Digital Health Faculty Within Leading Universities	Regulation on Telehealth
Argentina	✓	✓	✓	✓	✓	✓	✗
Brazil	✓	✓	✓	✓	✓	✓	✗
Chile	✓	✓	✓	✓	✓	✓	✗
Colombia	✗	✓	✓	✓	✗	✗	✓
Costa Rica	✓	✓	✓	✓	✓	✗	✗
Guatemala	✗	✗	✓	✓	✗	✗	✗
Mexico	✗	✗	✓	✓	✗	✓	✗
Panama	✓	✗	✓	✓	✓	✗	✗
Peru	✓	✓	✓	✓	✗	✓	✓
Uruguay	✓	✓	✓	✓	✓	✓	✗

The crisis has driven legal and regulatory changes around digital health

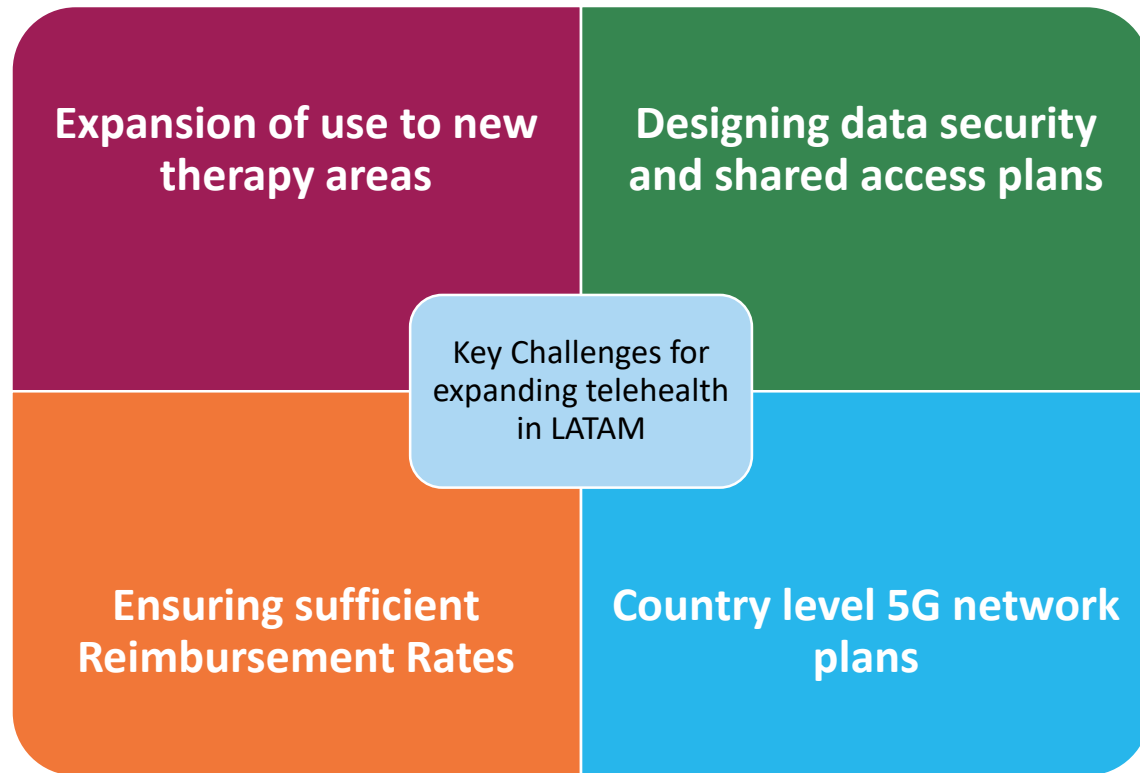


	Actions on telehealth	Other digital health actions
Argentina	Implementation of Telecovid, a telehealth network ran by the national government for telehealth consults for potentially infected patients and recovering patients.	E-prescription for oncological drugs, treatment of chronic, non-transmittable illnesses, and any other medication requiring a prescription that is not a psychotropic may be issued through images via WhatsApp, email or fax.
Brazil	A decree has legalized medical consults, diagnostics, and medical certificates (including prescriptions) to be conducted and issued virtually throughout the duration of the pandemic.	E-prescriptions for medication is now authorized nationwide, excluding psychotropics and opioid's, and are accessible via online platform for pharmacies and physicians.
Chile	The National Center for Health Information Systems published a Telehealth best practices guide with key recommendations for physicians, providers and patients.	The Chilean government is planning on launching "CoronaApp" to adequately monitor potential infection points and avoid large gatherings of citizens. Allowed citizens to pay copays for FONASA online
Colombia	Decree 538 was issued and allows for physicians to use video and audio platforms to evaluate and prescribe medications to patient, avoiding contagion amid the COVID-19 pandemic.	EPSs have begun implementing telehealth, via specific apps or WhatsApp, in order to attend to high-risk patients and mitigate losses from COVID-19
Mexico		
Peru	The government announced the creation hotline with 400 health professionals, with the capacity to take 80,000 calls on daily basis for non-COVID 19 related health issues, such as mental health.	

There are opportunities to address challenges that will slow expansion of telehealth



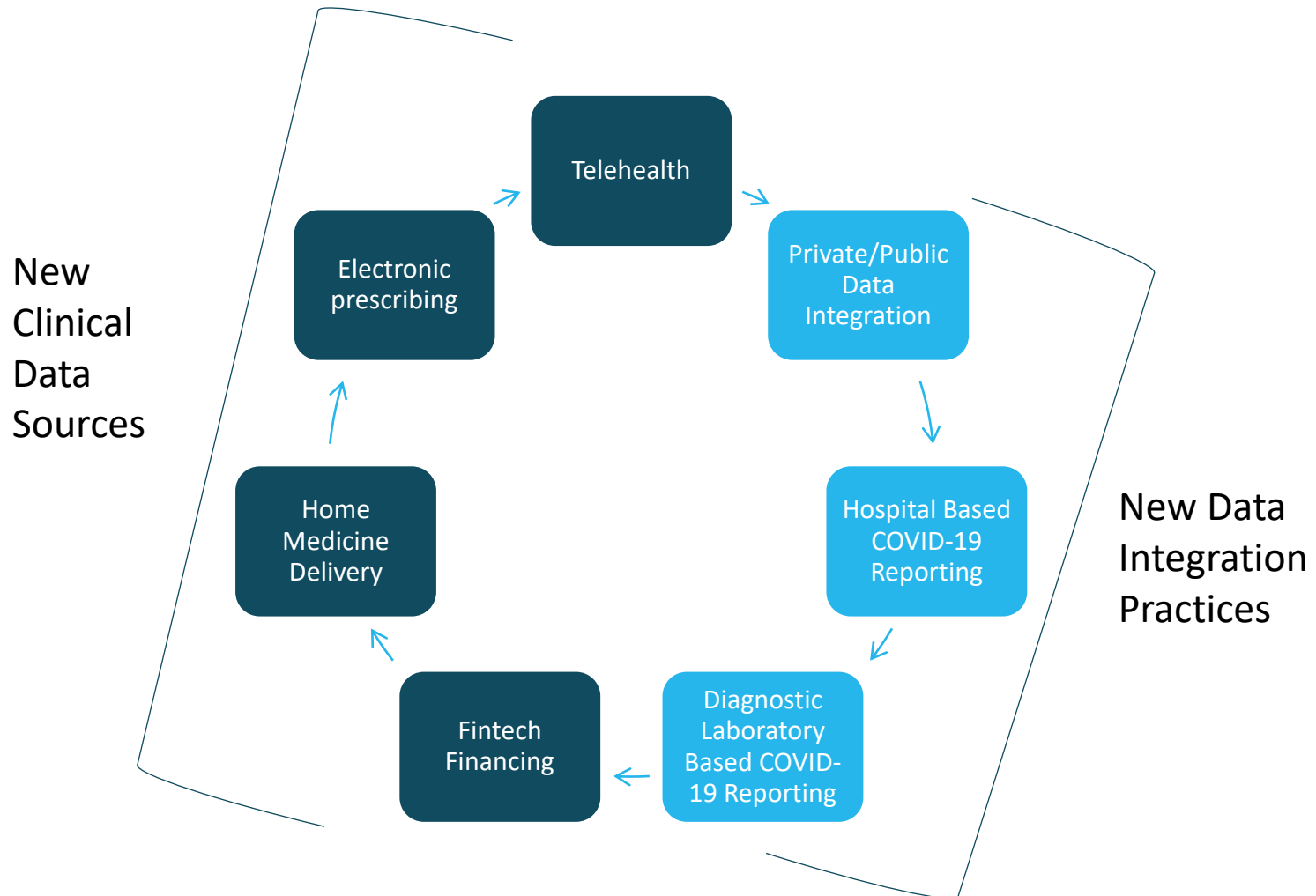
Work streams should be created around these prioritized areas



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Data Collection and Analysis

New data streams and data integration practices have been initiated



New policy makers will need to be educated as to the importance of actions on data collection



Brazil Replaces Minister of Health – April 20



- Amid a political crisis, new Minister Nelson Teich is appointed by Jair Bolsonaro.
- Teich is former oncologist with an extensive background in healthcare economics and management.
- With strong ties to the private sector, Teich has worked with Hospital Israelita Albert Einstein and President Bolsonaro's presidential campaign as a consultant.

Peru Replaces Minister of Health – March 21



- Victor Zamora replaces Elizabeth Hinostroza as Minister of Health as President Vizcarra claims Zamora possesses “extensive expertise in public health”.
- Zamora is a physician with an academic background in health management and economics.
- Prior to his ministerial position, Zamora was regional health director for San Martin and acted as an advisor for the Ministry of Health.

Ecuador Replaces Minister of Health – March 21



- Juan Carlos Zevallos is a cardiologist who replaced Catalina Andramuño after her resignation as Minister of Health amid a deep sanitary crisis.
- Zevallos was an acting professor at Universidad de las Americas and at Florida International University.
- Prior training includes epidemiological control at the Center for Disease Control in the United States.

Guatemala Replaces Minister Health – January 15



- Hugo Roberto Monroy de Castillo was announced Minister of Public Health and Social Services on January 15
- As Guatemala's health crisis deepens, Guatemala's Human Rights Obmudsman has filed a request to destitute Monroy from his position due to his poor execution of public policies during the COVID-19 pandemic.

Colombia Assigns new Vice-Minister of Health – April 6



- Appointed during the COVID-19 pandemic, María Andrea Godoy Casadiego is the new Vice Minister of Social Protection.
- A lawyer, Godoy has an extensive background in health management and administrative law.
- Prior to her role, Godoy worked in management at health insurers such as Fasminar and Colsanitas, and in charge of the Legal Advisory Office of the National Superintendency of Health.

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