

Série Corona360



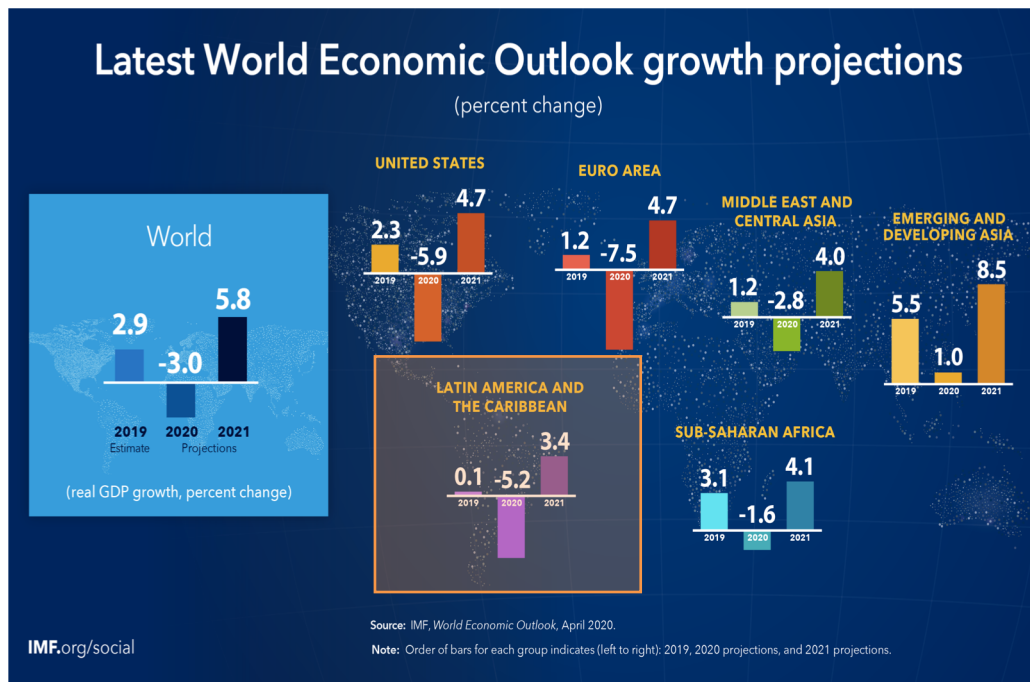
# CRISE SANITÁRIA E SISTEMAS DE SAÚDE: COMO OS PAÍSES ESTÃO RESPONDENDO À COVID-19

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# O impacto econômico da COVID-19



## Latest World Economic Outlook Growth Projections

The COVID-19 pandemic will severely impact growth across all regions.

(real GDP, annual percent change)	2019	PROJECTIONS	
		2020	2021
<b>World Output</b>	<b>2.9</b>	<b>-3.0</b>	<b>5.8</b>
<b>Advanced Economies</b>	<b>1.7</b>	<b>-6.1</b>	<b>4.5</b>
United States	2.3	-5.9	4.7
Euro Area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other Advanced Economies	1.7	-4.6	4.5
<b>Emerging Markets and Developing Economies</b>	<b>3.7</b>	<b>-1.0</b>	<b>6.6</b>
Emerging and Developing Asia	5.5	1.0	8.5
China	6.1	1.2	9.2
India	4.2	1.9	7.4
ASEAN-5	4.8	-0.6	7.8
Emerging and Developing Europe	2.1	-5.2	4.2
Russia	1.3	-5.5	3.5
Latin America and the Caribbean	0.1	-5.2	3.4
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
Middle East and Central Asia	1.2	-2.8	4.0
Saudi Arabia	0.3	-2.3	2.9
Sub-Saharan Africa	3.1	-1.6	4.1
Nigeria	2.2	-3.4	2.4
South Africa	0.2	-5.8	4.0
Low-Income Developing Countries	5.1	0.4	5.6

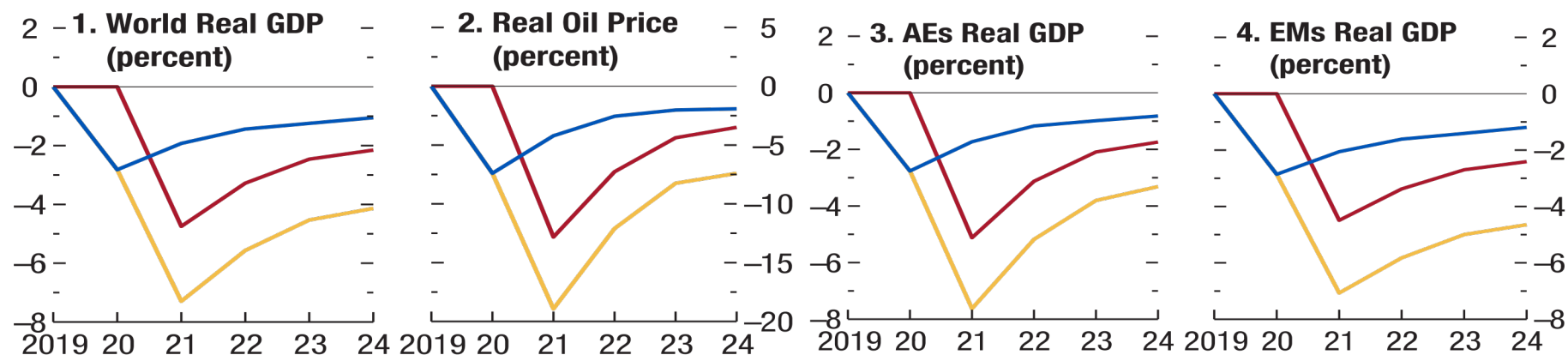
Source: IMF, World Economic Outlook, April 2020

A América Latina e o Caribe se destaca negativamente nos três cortes temporais:

- 1) **Pior ponto de partida** -> Menor taxa de crescimento pré-COVID;
- 2) **Alto impacto** -> Entre as regiões mais afetadas economicamente pela COVID-19 (Atrás apenas da OCDE);
- 3) **Retomada mais lenta** -> Menor taxa de crescimento pós-COVID.

## O quadro econômico pode ser ainda pior

As sucessivas revisões de piora nos cenários à medida em que mais informações sobre o surto da COVID-19 são revelados indicam que o quadro econômico pode e deve ser ainda pior devido tanto à prolongada duração do primeiro surto como pela ocorrência de novas ondas da doença.



Source: IMF, G-20 Model simulations.  
Note: AEs = advanced economies; EMs = emerging market economies.

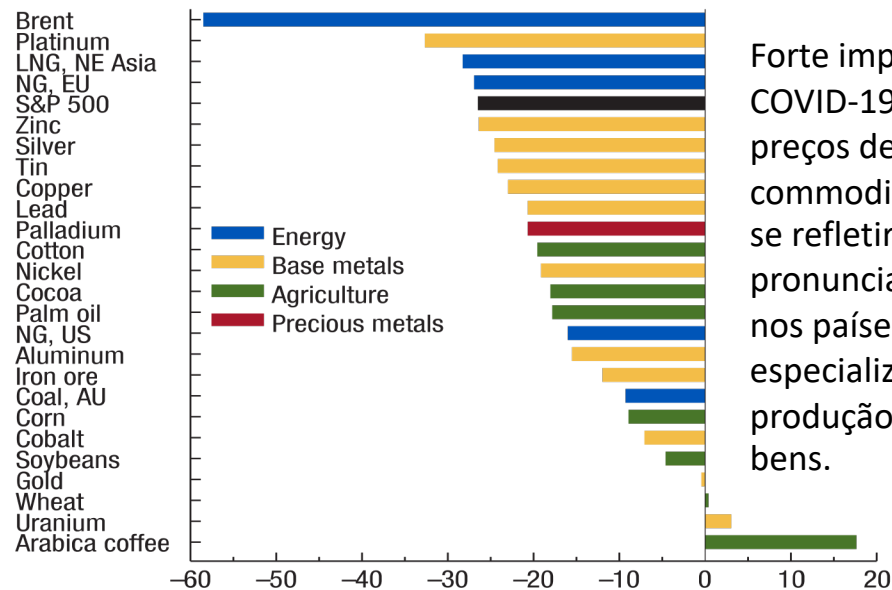
— Longer outbreak in 2020  
— New outbreak in 2021  
— Longer outbreak in 2020 plus new outbreak in 2021

# O impacto não é homogêneo sobre a atividade econômica

Em geral, toda a economia perde, mas algumas atividades em setores relacionados à saúde, tecnologia e bens de consumo podem até se fortalecer, enquanto aquelas dependentes do crescimento do produto global devem sofrer negativamente, como, particularmente, as commodities.

O desempenho dos setores nos mercados acionários são uma boa proxy para avaliar quem mais perde e quem eventualmente pode ganhar com a crise.

Impact on Commodity Prices

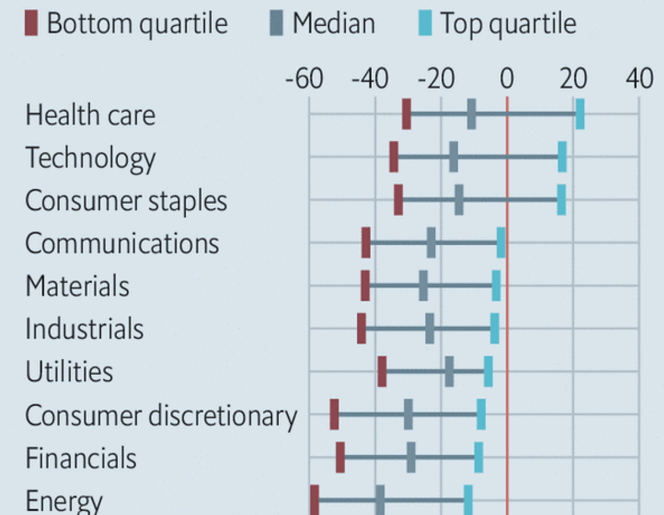


Forte impacto da COVID-19 nos preços de commodities deve se refletir mais pronunciadamente nos países especializados na produção desses bens.

Sources: Argus; Bloomberg L.P.; Thomson Reuters Datastream; URSA Space Systems; and IMF staff calculations.

## Viral variance

Global stockmarket performance by sector\*, % January 1st-April 3rd 2020, \$ terms



Source: Bloomberg

\*Companies with current market capitalisation over \$5bn

## Impacto ainda mais profundo e assimétrico no mercado de trabalho

Os efeitos podem ser ainda piores no mercado de trabalho já que o surto tem afetado, particularmente, setores (i) intensivos em trabalho (com exceção de agricultura/pesca/madeira) e (ii) com as menores remunerações. Em termos de gênero, homens, são particularmente mais afetados.

Table 2. Workers at risk - sectoral perspective

Economic sector	Impact	Share in global employment (%)	Wage ratio (av. monthly sector earnings/av. total earnings )	Share of women (%)
Education	Low	5.3	1.23	61.8
Human health and social work activities	Low	4.1	1.14	70.04
Public administration and defence; compulsory social security	Low	4.3	13.5	31.5
Utilities	Low	0.8	1.07	18.8
Agriculture; forestry and fishing	Low-Medium	26.5	0.72	37.1
Construction	Medium	7.7	1.03	7.3
Financial and insurance activities	Medium	1.6	1.72	47.1
Mining and quarrying	Medium	0.7	1.46	15.1
Arts, entertainment and recreation, and other services	Medium-High	5.4	0.69	57.2
Transport; storage and communication	Medium-High	6.1	1.19	14.3
Accommodation and food services	High	4.3	0.71	54.1
Real estate; business and administrative activities	High	4.7	0.97	38.2
Manufacturing	High	13.9	0.95	38.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	High	14.5	0.86	43.6

## Quarentena, informalidade e proteção social

O percentual dos trabalhadores empregados vivendo em países em que a quarentena é recomendada cresce, mas o rigor das medidas se têm se afrouxado (Figura 1).

Figure 2. Workers at risk, informality, and social protection

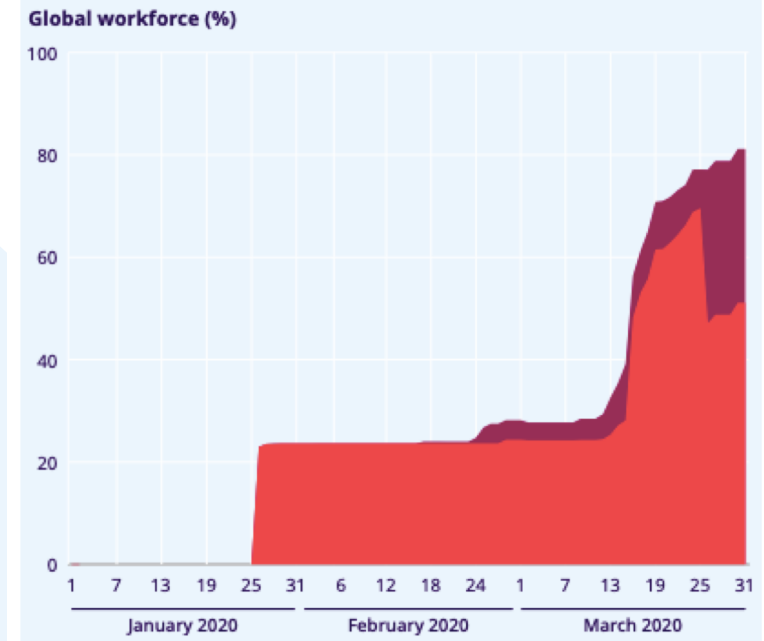
	Share of employment in at-risk sectors (%)	Informality rate in non-agriculture (%)	Social protection coverage (%)	Deaths due to COVID-19 per 100 000 people (as of 1 April) (%)
World	37.5	50.5	45.2	0.5
Africa	26.4	71.9	17.8	0.0
Americas	43.2	36.1	67.6	0.5
Arab States	33.2	63.9		0.1
Asia and the Pacific	37.9	59.2	38.9	0.2
Europe and Central Asia	42.1	20.9	84.1	3.2

**Note:** Sectors considered at high risk of disruption are accommodation and food service activities; manufacturing; real estate, business and administrative activities; and wholesale and retail trade, repair of motor vehicles and motorcycles.

**Source:** ILOSTAT, ILO modelled estimates, November 2019; ILO *World Social Protection Report 2017-19*, *Women and men in the informal economy: A statistical picture*, Third edition; and European Centre for Disease Prevention and Control.

Enquanto a informalidade e baixa cobertura da proteção social é um problema sério na África, as Américas sofrem com o elevado percentual de empregados em setores de maior risco (Figura 2).

Figure 1. Employment in countries with workplace closures



- Share of world's employed living in countries with **recommended workplace closures**
- Share of world's employed living in countries with **required workplace closures**

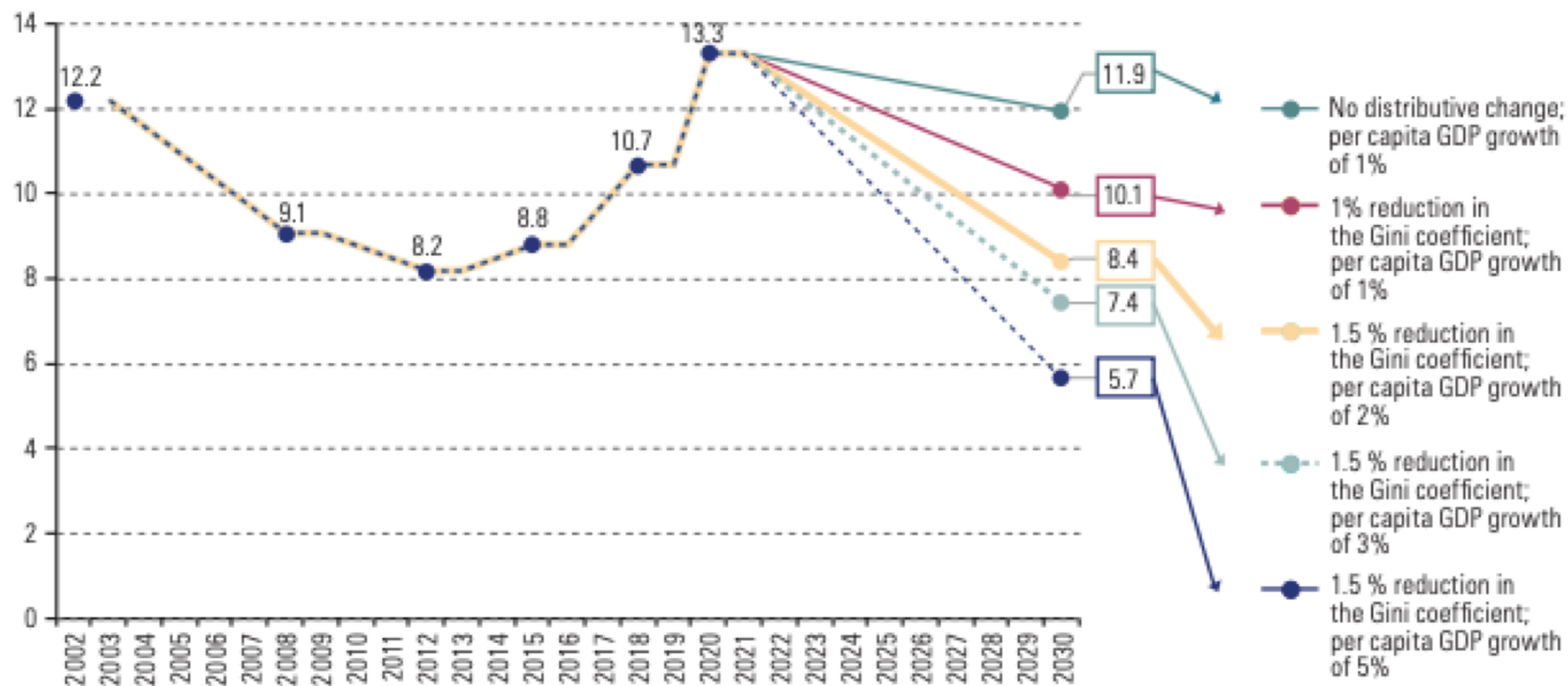
**Annex Table 1.1.3. Western Hemisphere Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment**  
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2019	Projections		2019	Projections		2019	Projections		2019	Projections	
		2020	2021		2020	2021		2020	2021		2020	2021
<b>North America</b>	<b>2.0</b>	<b>-6.0</b>	<b>4.5</b>	<b>2.0</b>	<b>0.8</b>	<b>2.2</b>	<b>-2.2</b>	<b>-2.6</b>	<b>-2.6</b>	...	...	...
United States	2.3	-5.9	4.7	1.8	0.6	2.2	-2.3	-2.6	-2.8	3.7	10.4	9.1
Canada	1.6	-6.2	4.2	1.9	0.6	1.3	-2.0	-3.7	-2.3	5.7	7.5	7.2
Mexico	-0.1	-6.6	3.0	3.6	2.7	2.8	-0.2	-0.3	-0.4	3.3	5.3	3.5
Puerto Rico <sup>4</sup>	2.0	-6.0	1.5	0.7	-1.5	0.6	...	...	...	8.5	13.0	12.5
<b>South America<sup>5</sup></b>	<b>-0.1</b>	<b>-5.0</b>	<b>3.4</b>	<b>9.1</b>	<b>8.1</b>	<b>7.5</b>	<b>-2.3</b>	<b>-1.6</b>	<b>-1.9</b>	...	...	...
Brazil	1.1	-5.3	2.9	3.7	3.6	3.3	-2.7	-1.8	-2.3	11.9	14.7	13.5
Argentina	-2.2	-5.7	4.4	53.5	...	...	-0.8	...	...	9.8	10.9	10.1
Colombia	3.3	-2.4	3.7	3.5	3.5	3.2	-4.3	-4.7	-4.2	10.5	12.2	11.9
Chile	1.1	-4.5	5.3	2.3	3.4	2.9	-3.9	-0.9	-1.8	7.3	9.7	8.9
Peru	2.2	-4.5	5.2	2.1	1.7	1.8	-1.4	-0.9	-1.0	6.6	7.1	7.3
Venezuela	-35.0	-15.0	-5.0	19,906	15,000	15,000	9.8	2.4	3.4	...	...	...
Ecuador	0.1	-6.3	3.9	0.3	0.0	1.2	-0.4	-5.7	-3.6	3.8	6.5	5.9
Paraguay	0.2	-1.0	4.0	2.8	2.9	3.2	-1.0	-2.2	-1.0	7.2	7.1	6.4
Bolivia	2.8	-2.9	2.9	1.8	2.3	4.4	-3.2	-4.6	-4.9	4.0	8.0	4.0
Uruguay	0.2	-3.0	5.0	7.9	8.8	7.9	0.2	-2.5	-3.1	9.4	10.5	8.1
<b>Central America<sup>6</sup></b>	<b>2.4</b>	<b>-3.0</b>	<b>4.1</b>	<b>2.2</b>	<b>1.3</b>	<b>1.7</b>	<b>-1.4</b>	<b>-2.6</b>	<b>-2.3</b>	...	...	...
<b>Caribbean<sup>7</sup></b>	<b>3.3</b>	<b>-2.8</b>	<b>4.0</b>	<b>2.8</b>	<b>4.0</b>	<b>4.3</b>	<b>-0.6</b>	<b>-6.5</b>	<b>-3.8</b>	...	...	...
<i>Memorandum</i>												
Latin America and the Caribbean <sup>8</sup>	0.1	-5.2	3.4	7.1	6.2	5.9	-1.7	-1.5	-1.6	...	...	...
Eastern Caribbean Currency Union <sup>9</sup>	3.7	-7.6	6.1	0.9	0.8	1.7	-8.9	-21.4	-14.2	...	...	...

Source: IMF staff.

## Efeito estimado da COVID-19 na extrema pobreza em 2030: América Latina e Caribe

Latin America: projection of the extreme poverty rate to 2030 in various scenarios of per capita GDP growth and income distribution change, and a simulation of the impact of COVID-19 on extreme poverty in 2020  
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of household survey data bank (BADEHOG).



# Definição do problema

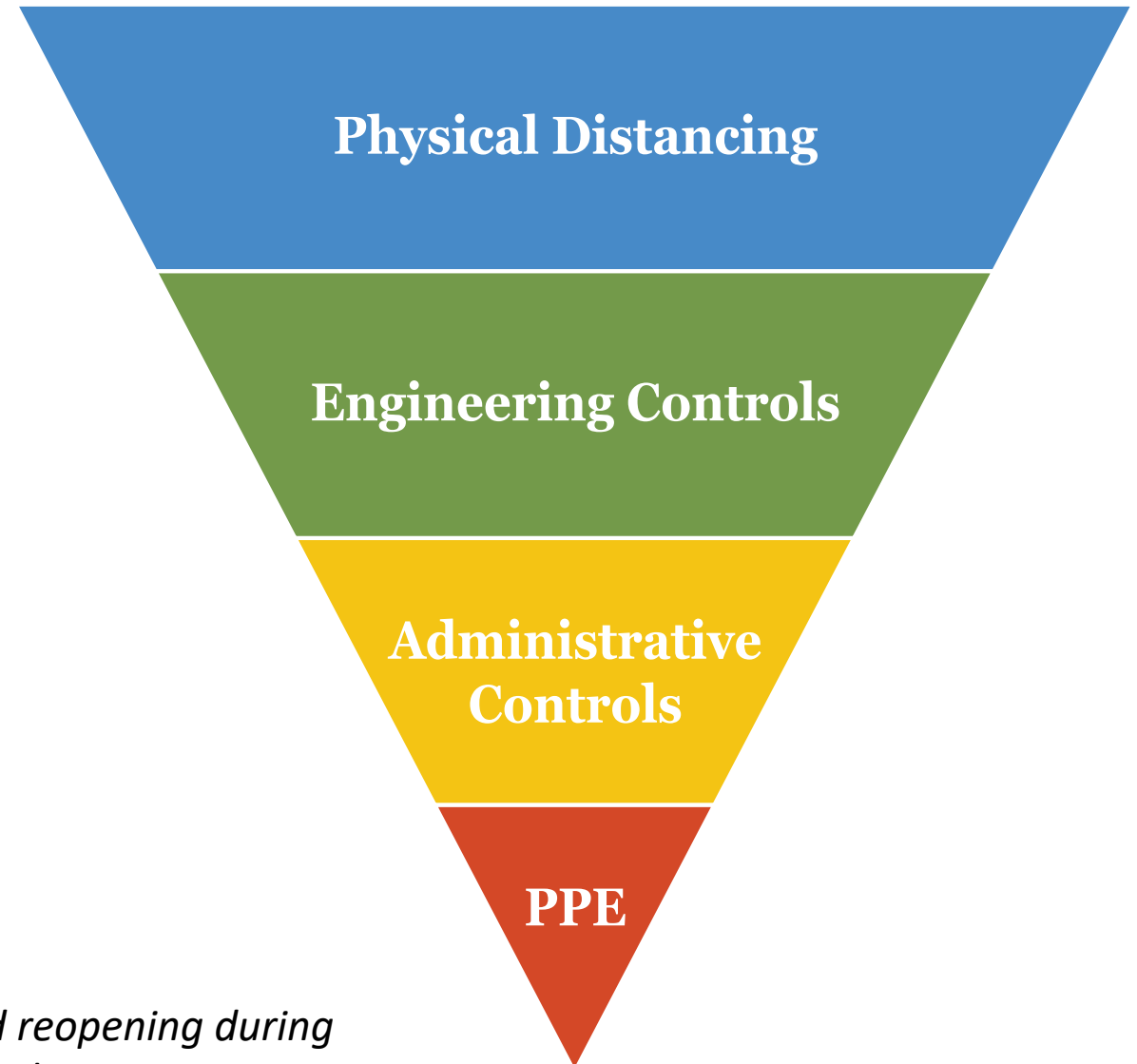
- Doença de rápido contágio, com 14 a 20% de casos graves, 5% demandando cuidado intensivo, dos quais metade necessitarão de ventilação mecânica.
  - Salto de espécie ocorre em meados de novembro de 2019.
  - 150 dias depois, ela já está presente em todos do mundo, com mais de 2 milhões de casos confirmados e mais 125 mil óbitos.
  - Sem vacinas ou tratamentos específicos existentes. Ainda sem conhecimento das possíveis sequelas decorrentes dos casos graves, principalmente pulmonares.
- Atenção à saúde de maior complexidade é fundamental para o cuidado dos casos mais graves.

# Sobreposição de alternativas tecnológicas para o combate

- Distanciamento social (idade média) – 4,5 bilhões de pessoas praticam algum tipo de distanciamento
- Busca por vacinas (século XIX) (20 testes em andamento) e medicamentos (século XX) (200 testes em andamento)
- Atenção hospitalar de média e alta complexidade – 500 mil pessoas estão ou estiveram internadas
- RT-PCR, Inteligência artificial, Big Data, imagens (reconhecimento e calorímetro), drones: tecnologias sofisticadas do final do século XX e início do XXI

# Hierarquia dos controlos adaptada – efetividade das medidas de mitigação no trabalho

- Physical Distancing — wherever possible having people work or access the business from home;
- Engineering controls — creating physical barriers between people
- Administrative controls — redistributing responsibilities to reduce contact between individuals, using technology to facilitate communication
- PPE — having people wear nonmedical cloth masks



# Redesenhando as competências globais em saúde

2019 Global Health Security Index <sup>1</sup>			COVID-19 Dashboard JHU <sup>2</sup>
Country	Rank	Overall score	Total death
USA	1	83.5	24.7 thousand
UK	2	77.9	12.0 thousand
Netherlands	3	75.6	3.0 thousand
Australia	4	75.5	61
Canada	5	75.3	823
Thailand	6	73.2	41
Sweden	7	72.1	1.0 thousand
Denmark	8	70.4	299
South Korea	9	70.2	222
Finland	10	68.7	64
Brazil	22	57.9	1.2 thousand
Singapore	24	58.7	10
N. Zealand	35	54.0	9
China	51	48.2	3.3 thousand

1. <https://www.ghsindex.org/wp-content/uploads/2020/04/2019-Global-Health-Security-Index.pdf>
2. <https://coronavirus.jhu.edu/map.html> (14/04/2020 – 4 pm)

DALGLISH, Sarah L. COVID-19 gives the lie to global health expertise. **The Lancet**, 2020.

“A recent report by Global Health 50/50 showed that 85% of global organisations working in health have headquarters in Europe and North America; two-thirds are headquartered in Switzerland, the UK, and the USA. More than 80% of global health leaders are nationals of high-income countries, and half are nationals of the UK and the USA.”

# Estratégia

- Organizar a fila para a atenção do cuidado de maior complexidade
- Fase 1
  - Planejamento
  - Comunicação e transparência
  - Reduzir a celeridade do contágio
  - Liberar os serviços para a sobrecarga dos atendimentos
  - Ampliar a capacidade de atendimento (novas estruturas e mobilizar capacidade ociosa)
  - Proteção contra os efeitos sociais e econômicos da pandemia e das medidas de prevenção e tratamento
  - Desenvolvimento de novas tecnologias de diagnóstico e tratamento

# Limites do sucesso e do fracasso de um política

- Financiamento e marco legal
- Capacidade instalada
- Tecnologia disponível
- Flexibilidade na produção de bens e serviços. Bolsa família, produção de respiradores
- Capacidade excedente mobilizável
- Unidade de comando e coordenação
- Legitimidade
- Pessoal: produtividade e capacidade de apreensão de novos conteúdos
- Cooperação internacional

# Você tem medo de que?

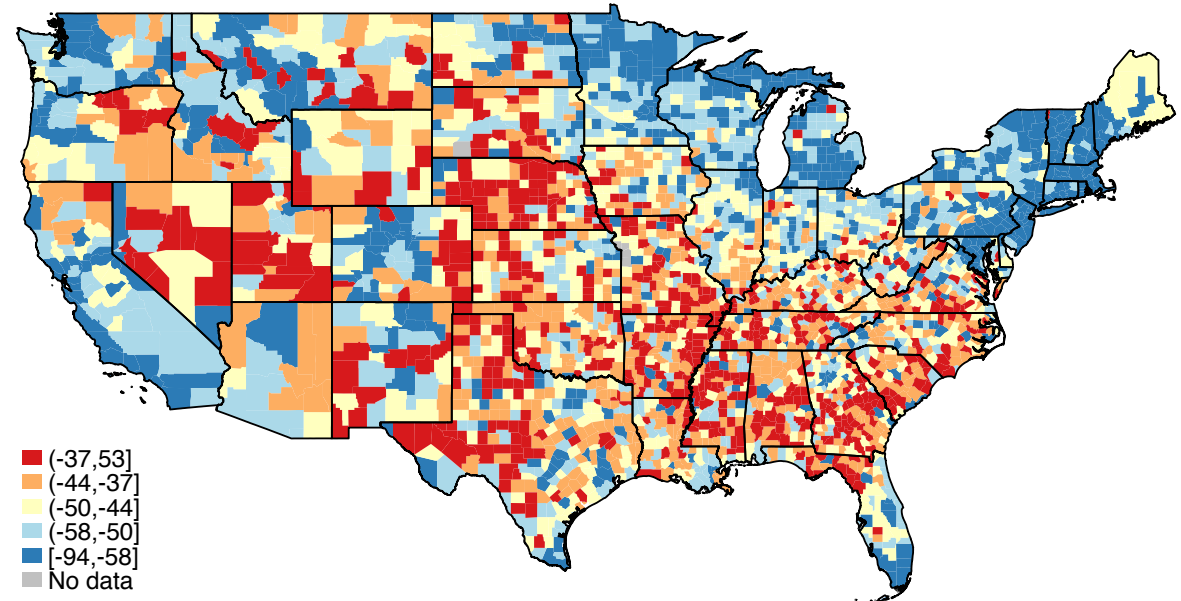
- Déficits históricos do sistema de saúde
- Sub-financiamento das políticas sociais, política de austeridade
- Deslegitimação do SUS, do serviço público e da ciência
- Ausência de coordenação
- Erosão da capacidade de provisão dos serviços de saúde e de proteção social



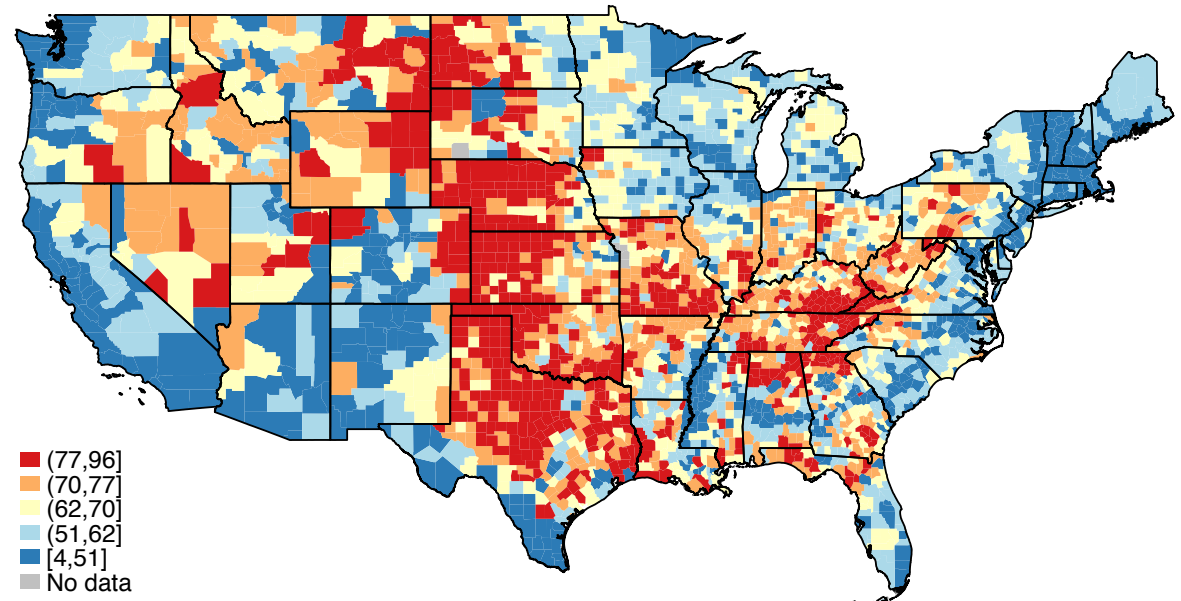
# Geographic Variation in Social Distancing, Partisanship, COVID-19, and Public Policy

Polarization and Public Health:  
Partisan Differences in Social  
Distancing during the Coronavirus  
Pandemic  
H. Allcott, L. Boxell, J. C. Conway,  
M. Gentzkow, M. Thaler, and D. Y.  
Yang. NBER Working Paper No.  
26946 April 2020

Panel A: % Change in SafeGraph Visits

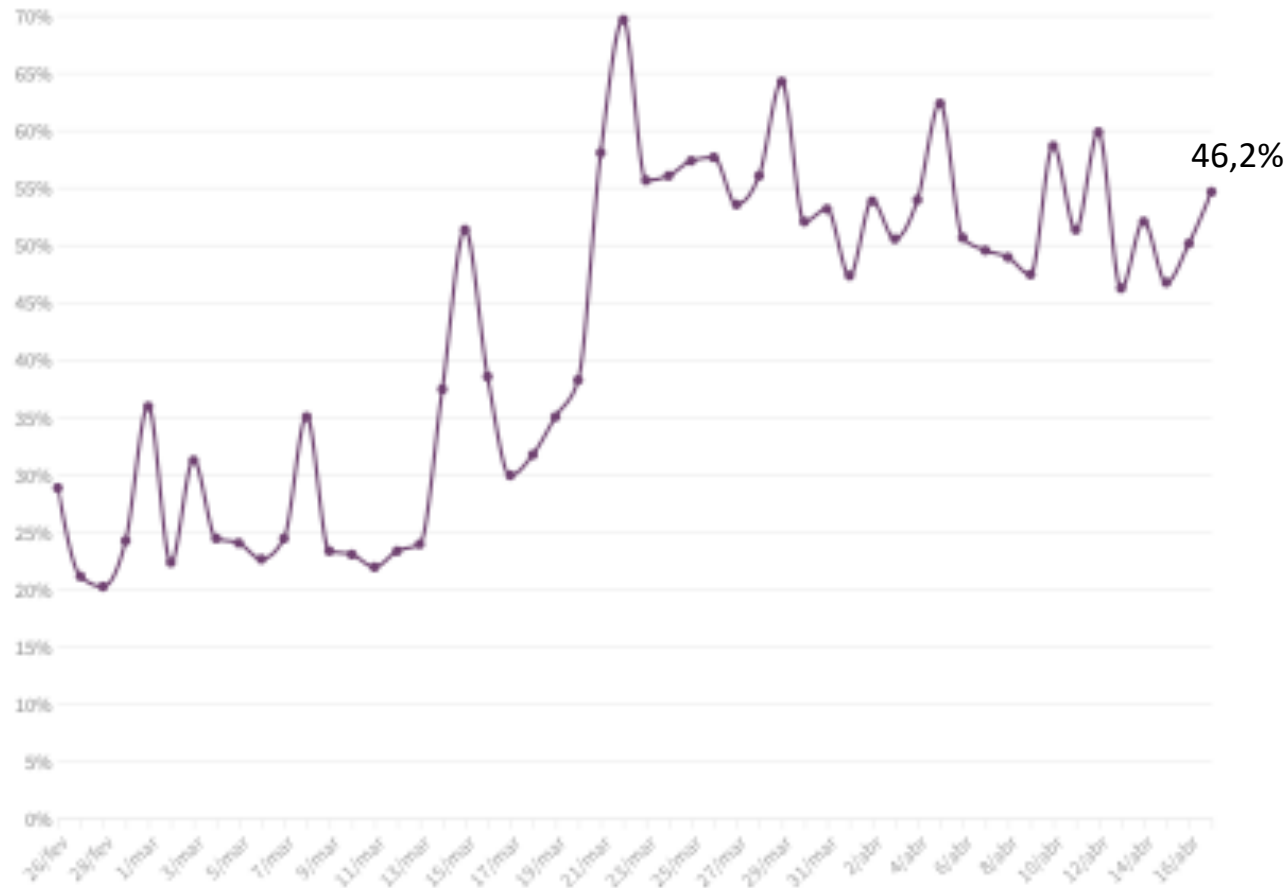


Panel B: 2016 Republican Vote Share



# Índice de Isolamento Social (IIS) no Brasil

Dados de geolocalização, filtrados do código de publicidade direcionada emitidos pelos celulares, medem percentual de pessoas em casa

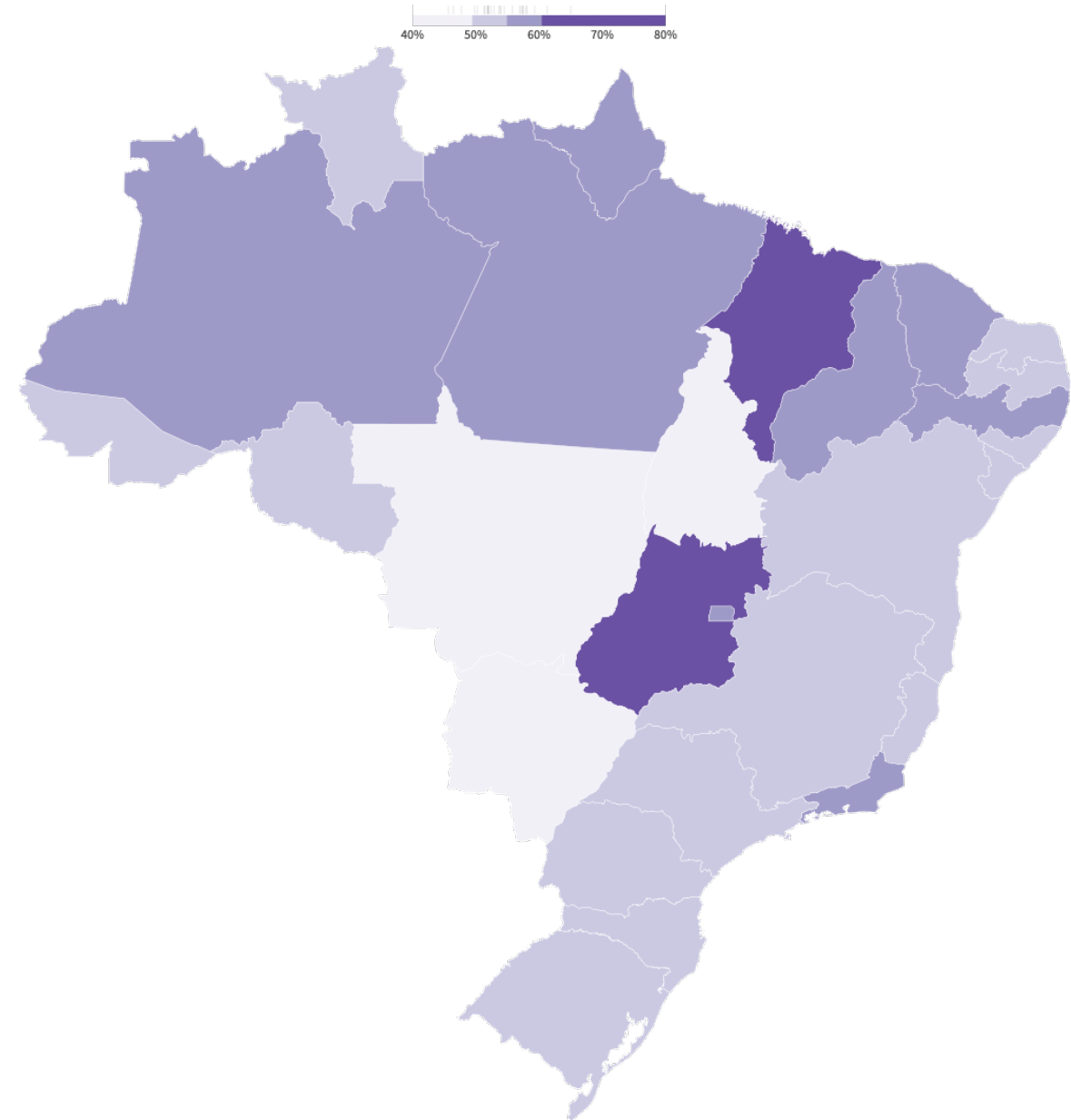


Fonte: In Loco (dados de 26/02 a 17/04) • Não representa o total da população brasileira

<https://www.uol.com.br/tilt/noticias/redacao/2020/04/20/o-que-mostram-os-dados-de-celulares-sobre-o-isolamento-social.htm?cmpid=copiaecola>

# Índice de Isolamento Social (IIS) por estado

Dados de geolocalização, filtrados do código de publicidade direcionada emitidos pelos celulares, medem percentual de pessoas em casa



Fonte: In Loco (dados de 17/04) • Não representa o total da população brasileira

# Rotas de saída

States should consider initiating the reopening process when (1) the number of new cases has declined for at least 14 days; (2) rapid diagnostic testing capacity is sufficient to test, at minimum, all people with COVID-19 symptoms, including mild cases, as well as close contacts and those in essential roles; (3) the healthcare system is able to safely care for all patients, including providing appropriate personal protective equipment for healthcare workers; and (4) there is sufficient public health capacity to conduct contact tracing for all new cases and their close contacts.

# Conceitos

- Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease, in order to limit disease spread; CDC
- Isolation which applies to people who have been diagnosed with the disease; CDC
- Social distancing - Remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible; CDC
  - For the average person, social distancing might mean not taking nonessential trips, trying to be mindful of how much contact they have with other people, working remotely, and not attending mass gatherings or taking part in activities that might expose them to the virus (John's Hopkins Center for Health Security);

# Lockdown

- A **stay-at-home order** (North America) or a **movement control order** (Southeast Asia) or **lockdown** (Europe) is an order from a government authority to restrict movements of a population as a mass [quarantine](#) strategy for suppressing, or mitigating, an [epidemic](#), or [pandemic](#), by ordering residents to stay home except for essential tasks or to work in essential businesses. In many cases, outdoor activities are allowed. Nonessential businesses are either closed or adapted to [working from home](#). In some regions, it has been implemented as a round-the-clock [curfew](#) or called a **shelter-in-place order**. (NBC, WBCR, WHO)

# How to improve adherence with quarantine

Main factors associated with adherence decisions:

- knowledge about the disease and quarantine procedure,
- social norms,
- perceived benefits of quarantine and perceived risk of the disease,
- practical issues such as running out of supplies
- financial consequences of being out of work.

Recommendations:

- timely, clear rationale for quarantine and information about protocols;
- emphasise social norms to encourage this altruistic behaviour;
- increase the perceived benefit that engaging in quarantine will have on public health;
- ensure that sufficient supplies of food, medication and other essentials are provided.