



COVID 19 Impact: Clinical Trends, Advances, and Healthcare Disparities

This meeting will be recorded and will be available at www.fmda.org/journalclub.php



FMDA Journal Club

July 29, 2020

Diane Sanders-Cepeda, DO, CMD – Presenter

Agenda

- COVID-19 State of the State
- Clinical Trends & Updates
- Clinical Advances & Research
- Insight into Healthcare Disparities
- Open Discussion

COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)



Total Confirmed
16,762,605

Confirmed Cases by Country/Region/Sovereignty

4,361,013	US
2,483,191	Brazil
1,531,669	India
827,455	Russia
459,761	South Africa
402,697	Mexico
395,005	Peru
349,800	Chile
302,295	United Kingdom
298,909	Iran
280,610	Spain
276,288	Pakistan

Admin0 Admin1 Admin2

Last Updated at (M/D/YYYY)
7/29/2020, 7:35:20 AM



Cumulative Confirmed Cases Active Cases Incidence Rate Case-Fatality Ratio Testing Rate Hospitalization Rate

188
countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#).
Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: [JHU](#), [NSF](#), [Bloomberg Philanthropies](#) and [Stavros Niarchos Foundation](#). Resource support: [Slack](#), [Github](#) and [AWS](#).
Click [here](#) to donate to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. [FAQ](#). Read more in [our blog](#).

Global Deaths

661,012

149,351	deaths	US
88,539	deaths	Brazil
45,963	deaths	United Kingdom
44,876	deaths	Mexico
35,123	deaths	Italy
34,193	deaths	India

Global Deaths

US State Level Deaths, Recovered

32,653	deaths, 72,813	recovered	New York US
15,825	deaths, 32,313	recovered	New Jersey US
8,679	deaths, recovered		California US
8,551	deaths, 96,452	recovered	Massachusetts US
7,638	deaths, recovered		Illinois US

US Deaths, Recovered





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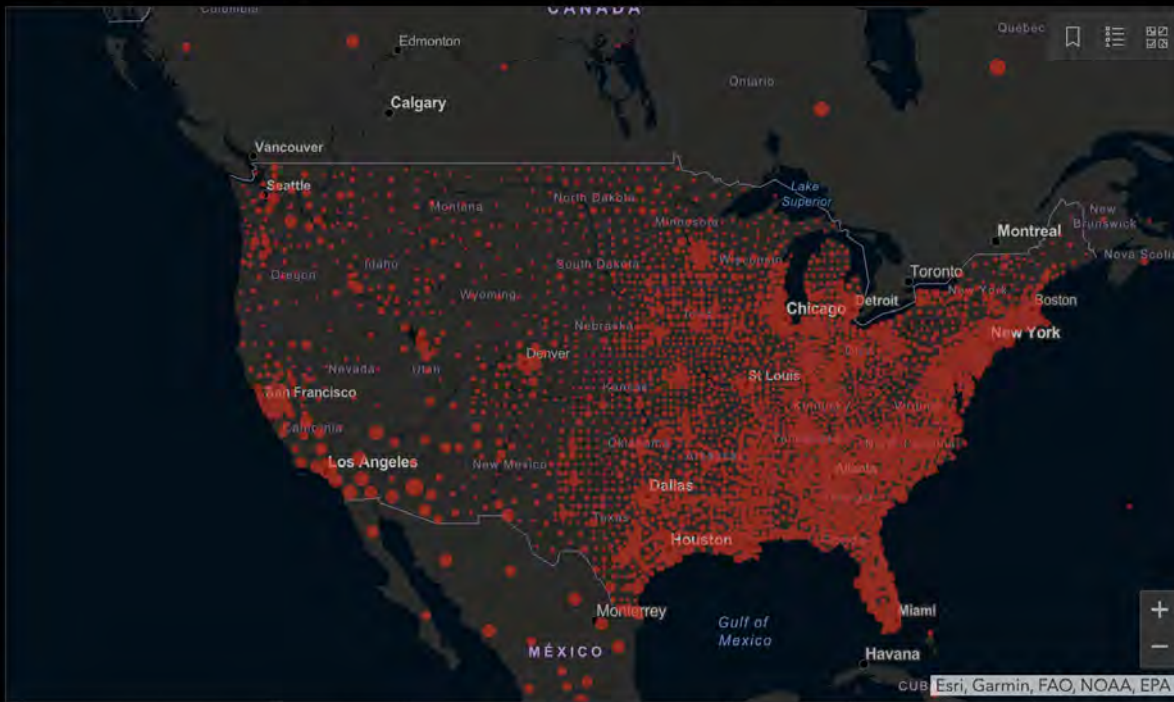
349,800 Chile

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Cumulative Confirmed Cases

Active Cases

Incidence Rate

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US State Level

Deaths, Recovered

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New York US

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Illinois US

Global Deaths

US Deaths, Recovered



Confirmed

Logarithmic

Daily Cases

Admin0 Admin1 Admin2

Last Updated at (M/D/YYYY)

7/29/2020, 7:35:20 AM

Total Cases
451,423

Cumulative Data for Florida Residents:

Positive Residents
446,251

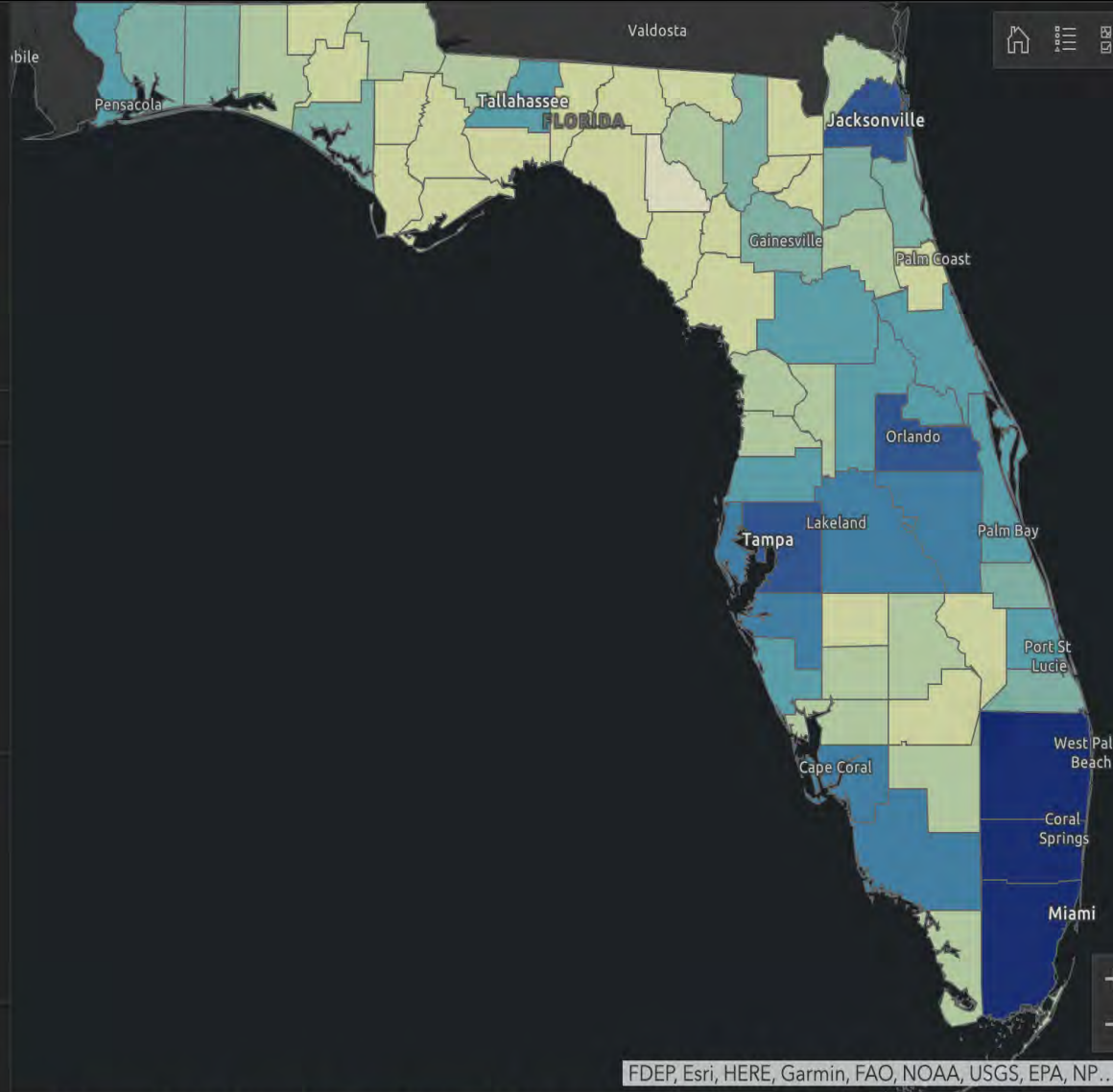
Resident Hospitalizations
25,499

Florida Resident Deaths

6,333

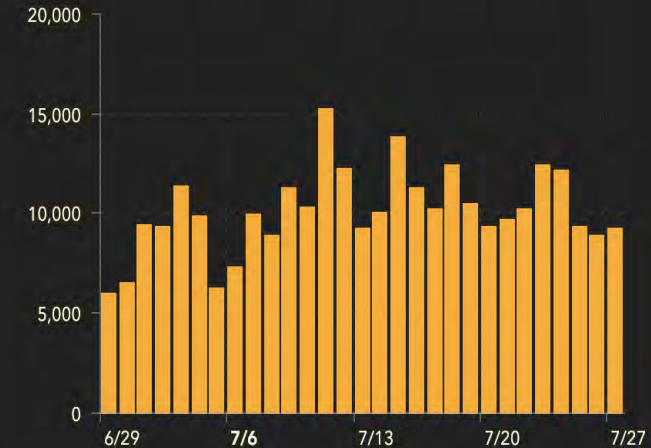
Non-Resident Deaths

123

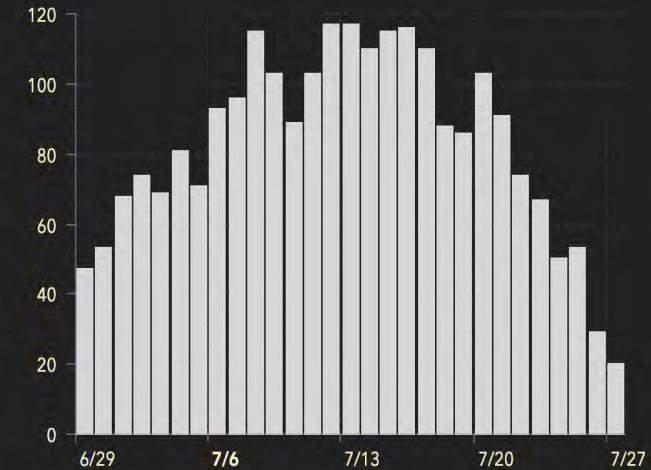


Recent Data for Florida Residents (Last 30 Days):

New Cases of Residents by Day



Resident Deaths by Date of Death



The Deaths by Day chart shows the total number of Florida residents with confirmed COVID-19 that died on each calendar day (12:00 AM - 11:59 PM). Death data often has significant delays in reporting, so data within the past two weeks will be updated

Data is updated every day at approximately 11 A.M. ET.

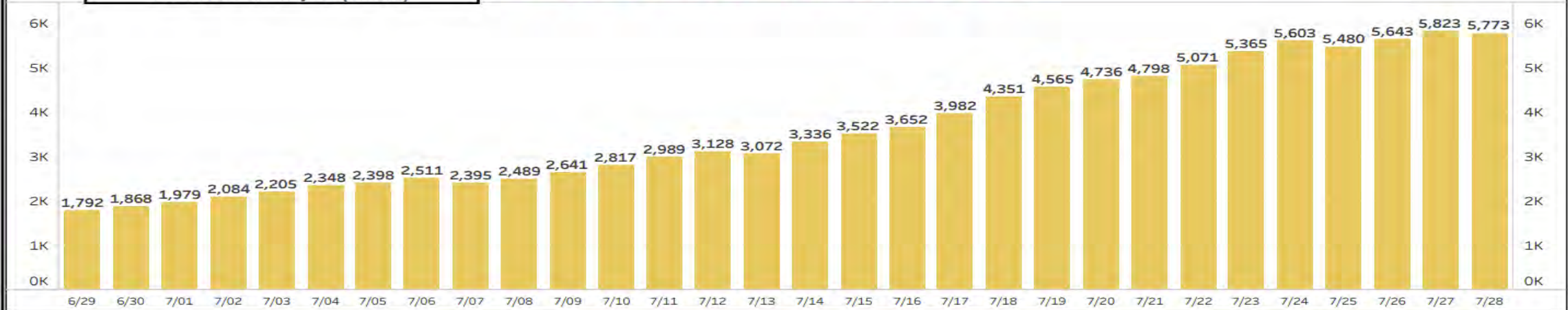
[Click here to access and download data.](#)

COVID in LTC

Last Updated: 7/27/2020 6:01:32 PM

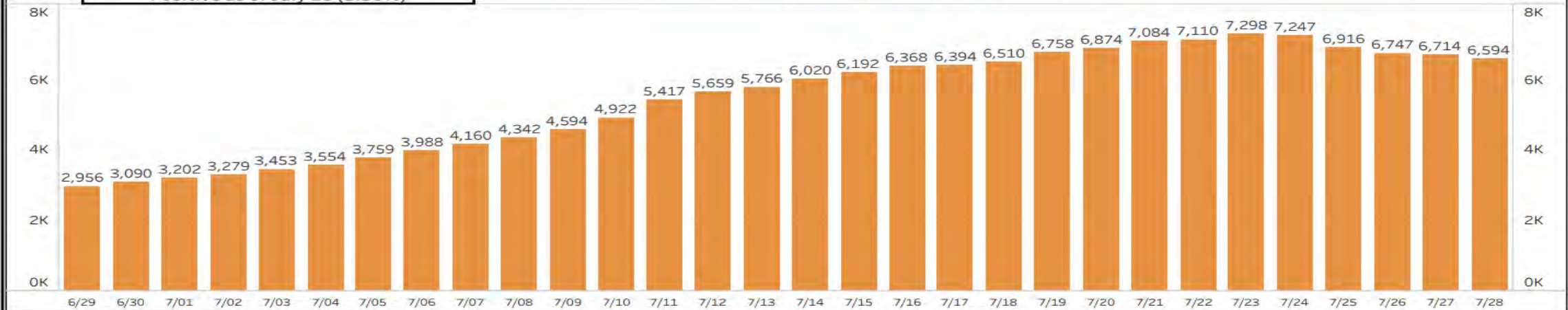
5,773 of 140,877 Total Residents
Positive as of July 28 (4.10%)

COVID Positive Residents (SNF & ALF)



6,594 of 196,524 Total Staff
Positive as of July 28 (3.36%)

COVID Positive Staff (SNF & ALF)



Data from AHCA ESS (Emergency Status System)

COVID positive residents and staff in Intermediate Care Facilities are not included in the bar chart totals. The data presented are reported by individual facilities and reporting errors may occur.



Clinical Trends & Updates



Coronavirus Disease 2019 (COVID-19)

Recommendations

1. Duration of isolation and precautions

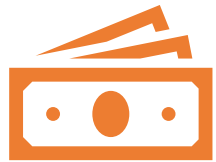
- For most persons with COVID-19 illness, isolation and precautions can generally be discontinued 10 days *after symptom onset*¹ and resolution of fever for at least 24 hours, without the use of fever-reducing medications, and with improvement of other symptoms.
 - A limited number of persons with severe illness may produce replication-competent virus beyond 10 days that may warrant extending duration of isolation and precautions for up to 20 days after symptom onset; consider consultation with infection control experts.
- For persons who never develop symptoms, isolation and other precautions can be discontinued 10 days *after the date of their first positive RT-PCR test for SARS-CoV-2 RNA*.

Shedding of infectious virus in hospitalized patients with coronavirus disease-2019 (COVID-19): duration and key determinants

Jeroen J.A. van Kampen M.D., Ph.D.¹, David A.M.C. van de Vijver Ph.D.¹, Pieter L.A. Fraaij M.D., Ph.D.¹, Bart L. Haagmans Ph.D.¹, Mart M. Lamers M.Sc.¹, Nisreen Okba Ph.D.¹, Johannes P.C. van den Akker M.D.², Henrik Endeman M.D., Ph.D.², Diederik A.M.P.J. Gommers M.D., Ph.D.², Jan J. Cornelissen M.D., Ph.D.³, Rogier A.S. Hoek M.D.⁴, Menno M. van der Eerden M.D., Ph.D.⁴, Dennis A. Hesselink M.D., Ph.D.⁵, Herold J. Metselaar M.D., Ph.D.⁶, Annelies Verbon M.D., Ph.D.⁷, Jurriaan E.M. de Steenwinkel M.D., Ph.D.⁷, Georgina I. Aron M.Sc.¹, Eric C.M. van Gorp M.D., Ph.D.¹, Sander van Boheemen Ph.D.¹, Jolanda C. Voermans Ph.D.¹, Charles A.B. Boucher M.D., Ph.D.¹, Richard Molenkamp Ph.D.¹, Marion P.G. Koopmans DVM, Ph.D.^{1*}, Corine Geurtsvankessel M.D., Ph.D.^{1*}, and Annemiek A. van der Eijk M.D., Ph.D.^{1*}



CMS Updates 7/22/2020



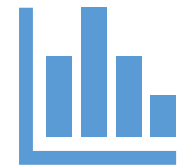
Funding



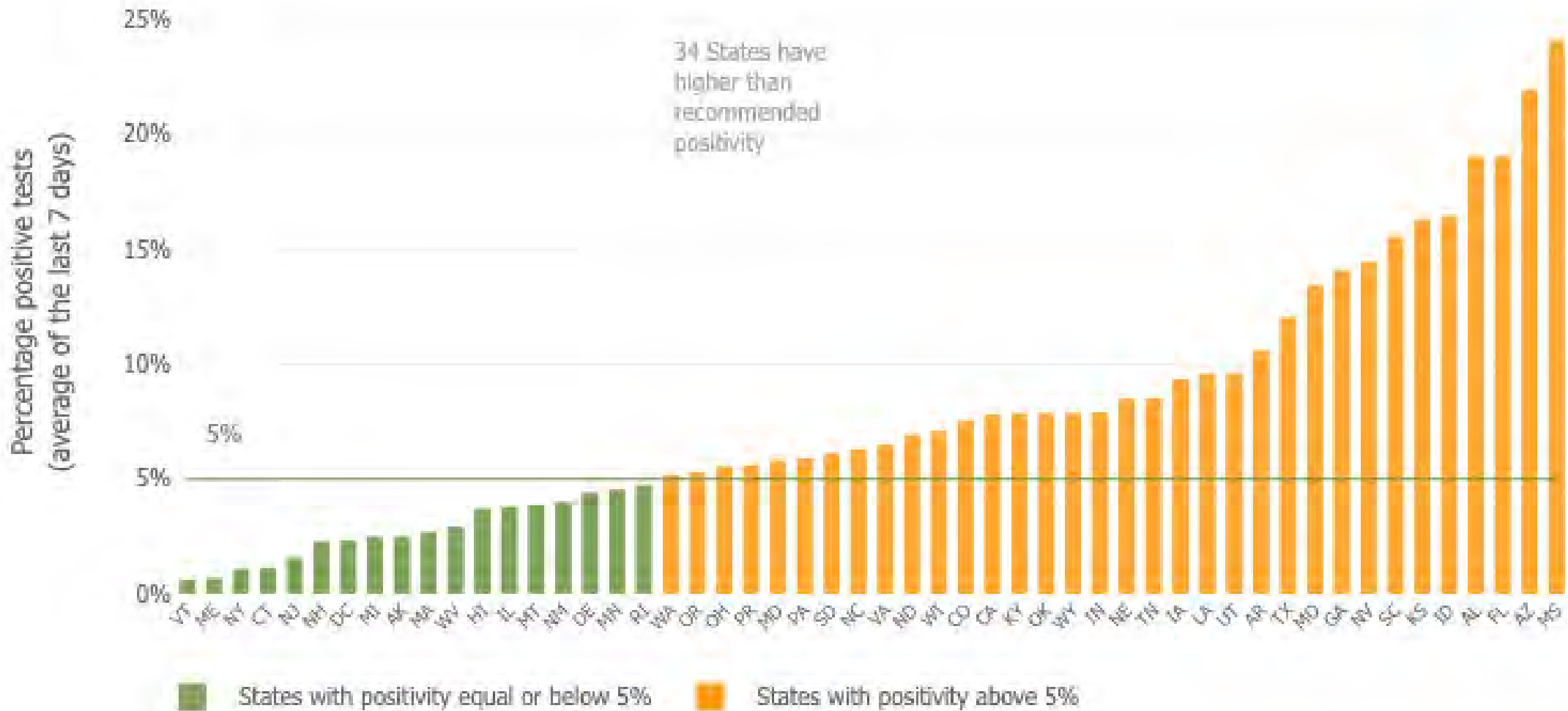
Weekly data



Assistance &
Support



Testing Strategy



State

Florida

New Cases

New daily cases



+8,892 new

Weekly trend

THIS WEEK

LAST WEEK



Tests per 1,000 people

Daily Tests



2.5 tests per 1,000

Weekly trend

THIS WEEK

LAST WEEK



Percent Positive

Daily % positive

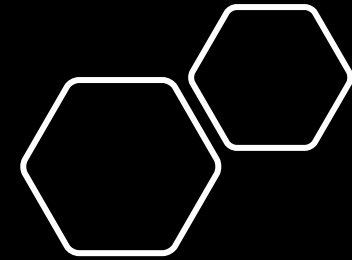


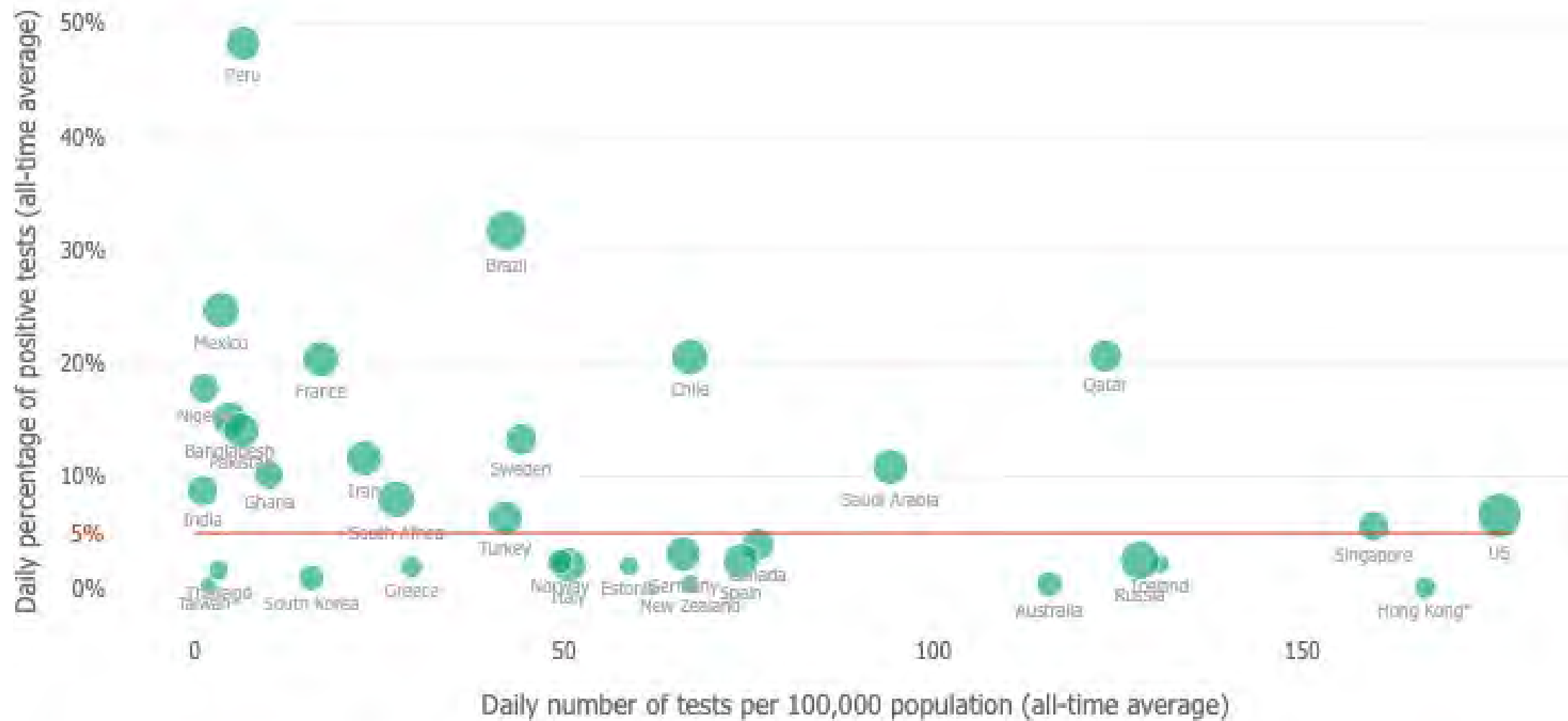
19.1% positive

Above threshold?

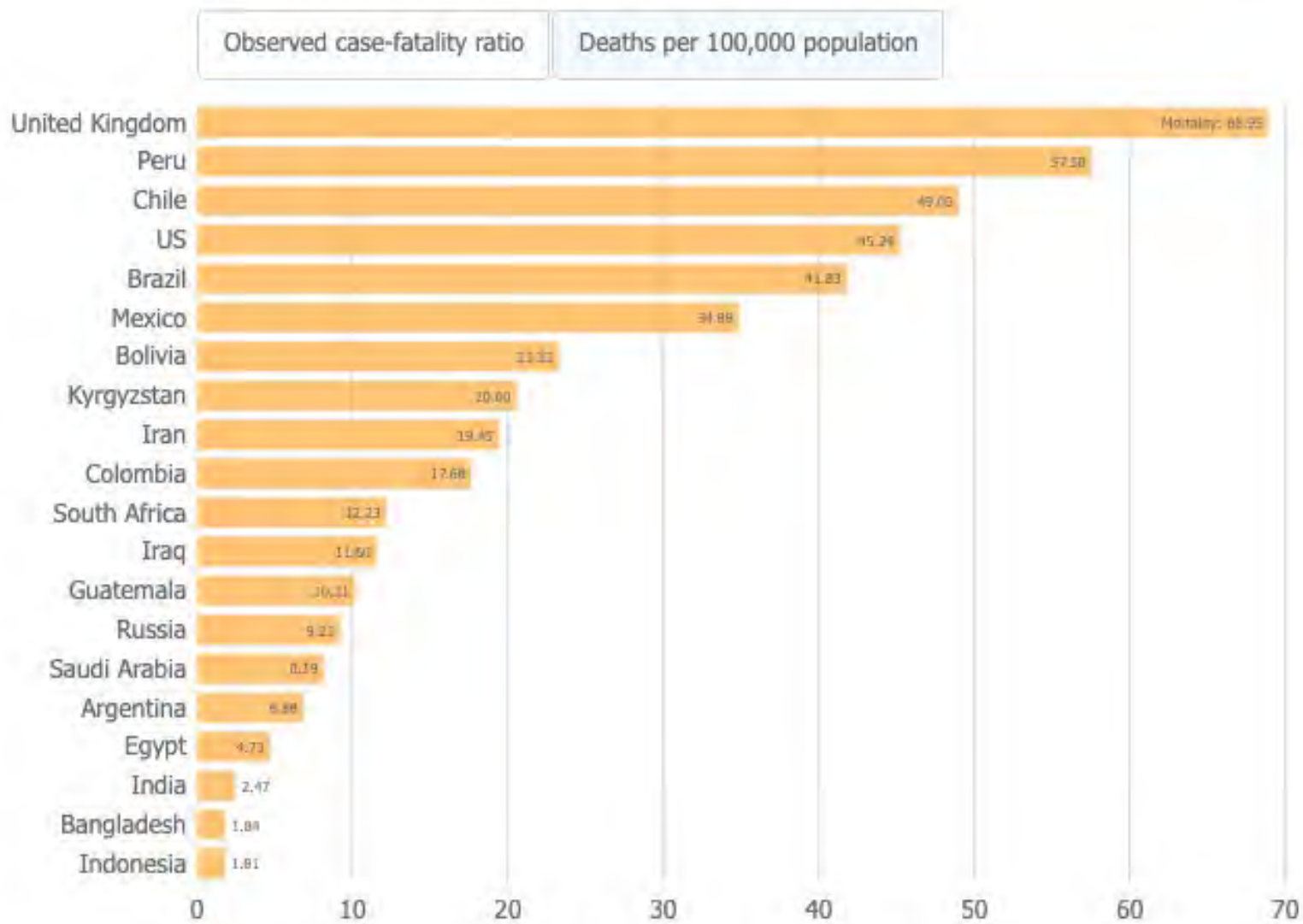
THIS WEEK

LAST WEEK





● Countries ——— Maximum recommended positivity



Observed case-fatality ratio

Deaths per 100,000 population

Mortality: Deaths per 100,000 population



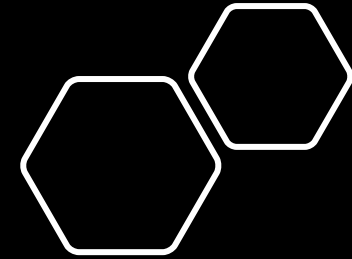
Clinical
Advances &
Research

FIRST OPINION

It's time to begin a national wastewater testing program for Covid-19

By ANNA MEHROTRA, DAVID A. LARSEN, *and* ASHISH K. JHA / JULY 9, 2020

[Reprints](#)

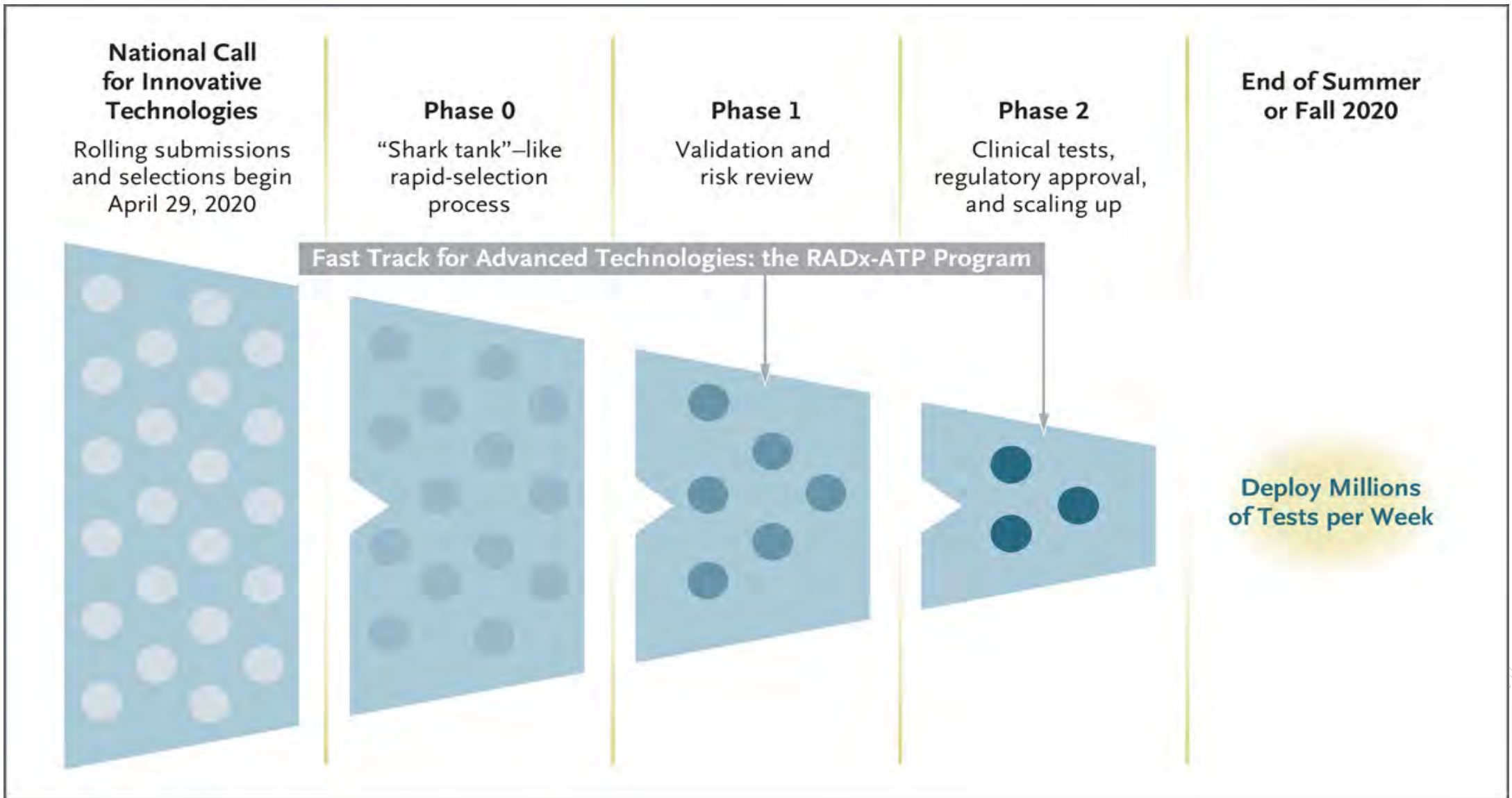


The NEW ENGLAND JOURNAL *of* MEDICINE

SPECIAL REPORT

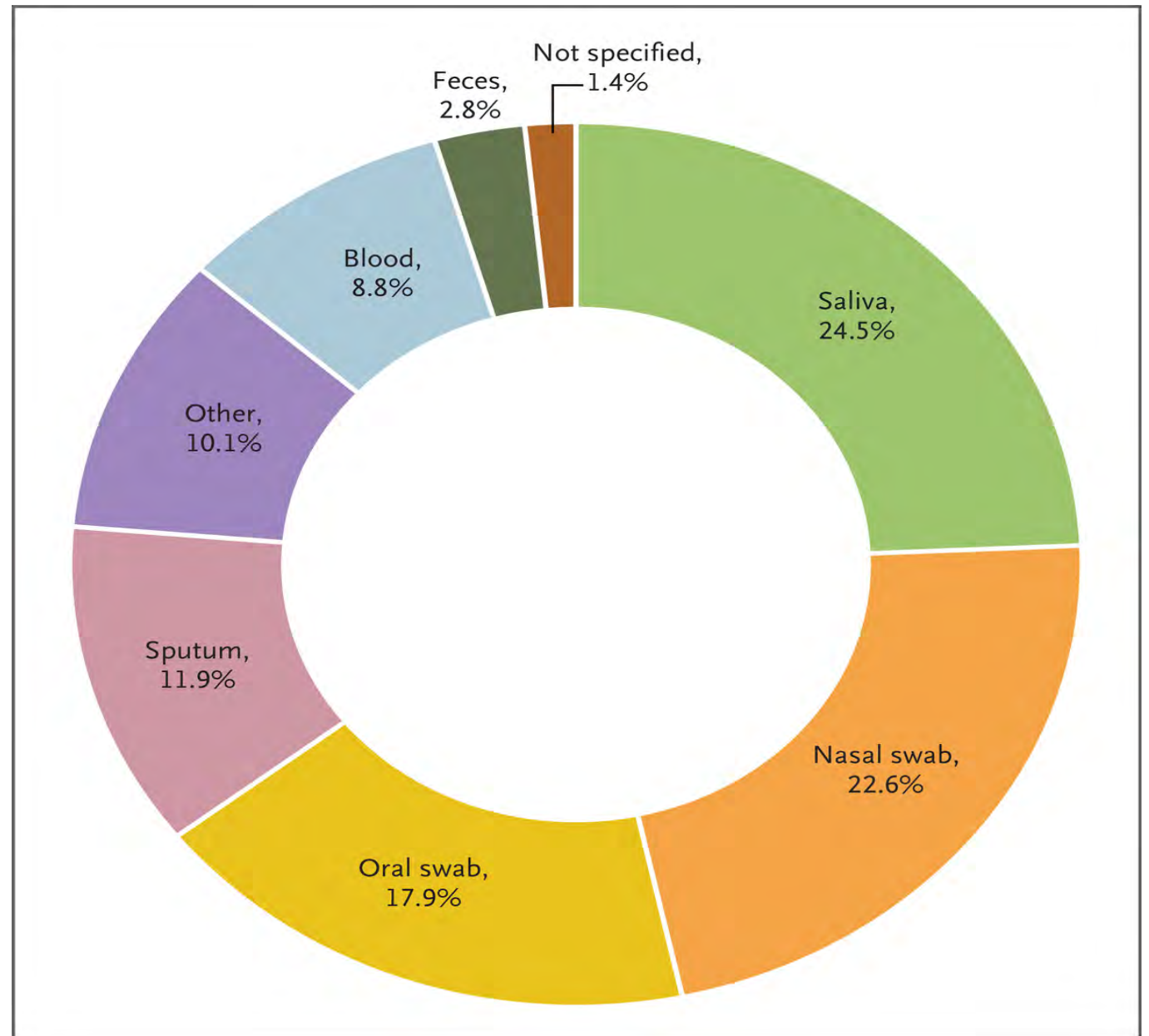
**Rapid Scaling Up of Covid-19 Diagnostic Testing
in the United States — The NIH RADx Initiative**

Bruce J. Tromberg, Ph.D., Tara A. Schwetz, Ph.D., Eliseo J. Pérez-Stable, M.D.,
Richard J. Hodes, M.D., Richard P. Woychik, Ph.D., Rick A. Bright, Ph.D.,
Rachael L. Fleurence, Ph.D., and Francis S. Collins, M.D., Ph.D.



RADx-tech Innovation Funnel to Evaluate Testing Technologies for Covid-19

Sample Types in RADx-tech and RADx-ATP Proposals.

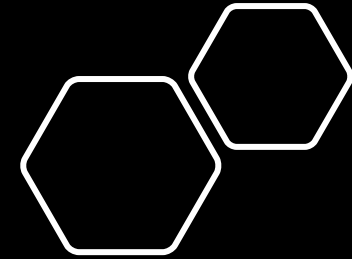


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ORIGINAL ARTICLE

Hydroxychloroquine with or without Azithromycin in Mild-to-Moderate Covid-19

A.B. Cavalcanti, F.G. Zampieri, R.G. Rosa, L.C.P. Azevedo, V.C. Veiga, A. Avezum, L.P. Damiani, A. Marcadenti, L. Kawano-Dourado, T. Lisboa, D.L.M. Junqueira, P.G.M. de Barros e Silva, L. Tramujas, E.O. Abreu-Silva, L.N. Laranjeira, A.T. Soares, L.S. Echenique, A.J. Pereira, F.G.R. Freitas, O.C.E. Gebara, V.C.S. Dantas, R.H.M. Furtado, E.P. Milan, N.A. Golin, F.F. Cardoso, I.S. Maia, C.R. Hoffmann Filho, A.P.M. Kormann, R.B. Amazonas, M.F. Bocchi de Oliveira, A. Serpa-Neto, M. Falavigna, R.D. Lopes, F.R. Machado, and O. Berwanger, for the Coalition Covid-19 Brazil I Investigators*





The NEW ENGLAND JOURNAL *of* MEDICINE

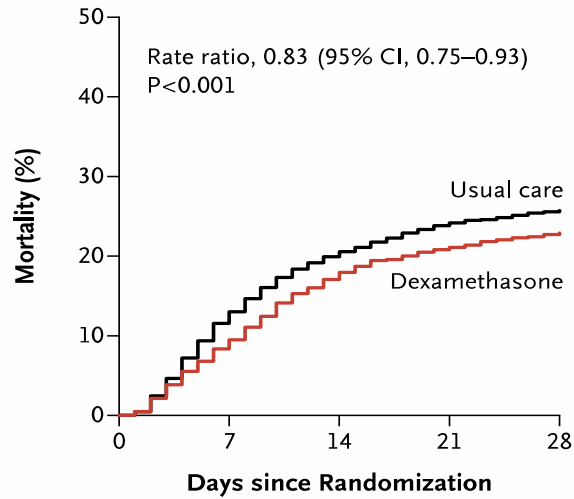
ORIGINAL ARTICLE

Dexamethasone in Hospitalized Patients with Covid-19 — Preliminary Report

The RECOVERY Collaborative Group*



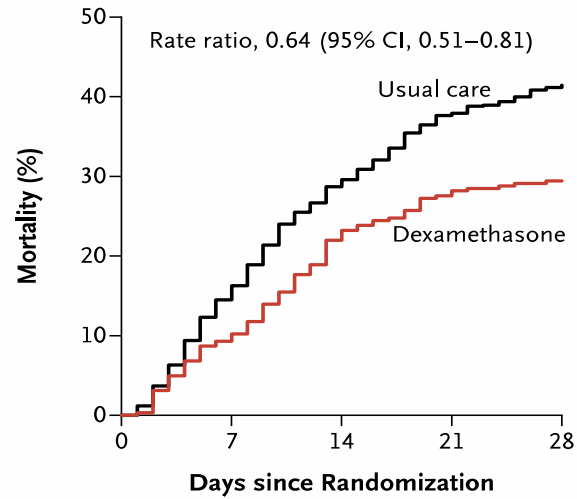
A All Participants (N=6425)



No. at Risk

Usual care	4321	3754	3427	3271	3205
Dexamethasone	2104	1903	1725	1659	1621

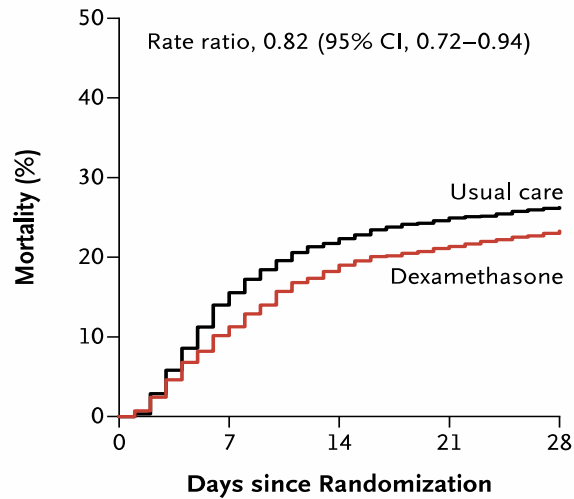
B Invasive Mechanical Ventilation (N=1007)



No. at Risk

Usual care	683	572	481	424	400
Dexamethasone	324	290	248	232	228

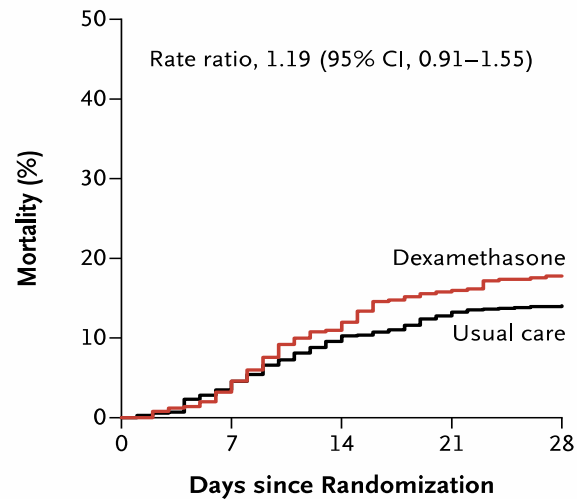
C Oxygen Only (N=3883)



No. at Risk

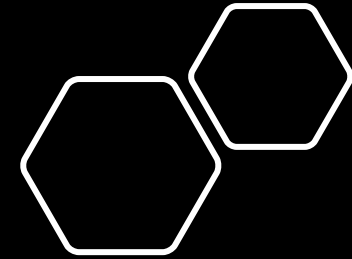
Usual care	2604	2195	2018	1950	1916
Dexamethasone	1279	1135	1036	1006	981

D No Oxygen Received (N=1535)



No. at Risk

Usual care	1034	987	928	897	889
Dexamethasone	501	478	441	421	412



ORIGINAL ARTICLE

An mRNA Vaccine against SARS-CoV-2 — Preliminary Report

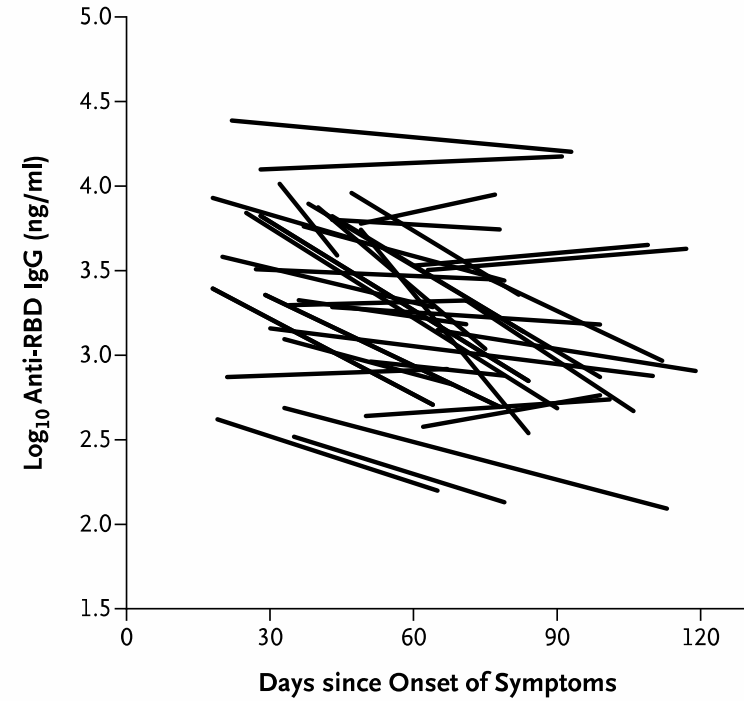
L.A. Jackson, E.J. Anderson, N.G. Rouphael, P.C. Roberts, M. Makhene, R.N. Coler, M.P. McCullough, J.D. Chappell, M.R. Denison, L.J. Stevens, A.J. Pruijssers, A. McDermott, B. Flach, N.A. Doria-Rose, K.S. Corbett, K.M. Morabito, S. O'Dell, S.D. Schmidt, P.A. Swanson II, M. Padilla, J.R. Mascola, K.M. Neuzil, H. Bennett, W. Sun, E. Peters, M. Makowski, J. Albert, K. Cross, W. Buchanan, R. Pikaart-Tautges, J.E. Ledgerwood, B.S. Graham, and J.H. Beigel, for the mRNA-1273 Study Group*

The NEW ENGLAND JOURNAL of MEDICINE

CORRESPONDENCE

Rapid Decay of Anti-SARS-CoV-2 Antibodies
in Persons with Mild Covid-19

A



B

Predictor	Slope		
	Estimate	Standard Error	95% CI
Intercept	-0.0083	0.0016	-0.0115 to -0.0050
Age (per 10-yr change)	0.0026	0.0012	-0.0001 to 0.0051
Sex (female reference)	0.0010	0.0034	-0.0059 to 0.0079
First antibody level (log ₁₀ ng/ml)	-0.0049	0.0032	-0.0114 to 0.0016
Per 10 days since symptom onset	0.0016	0.0012	-0.0010 to 0.0041

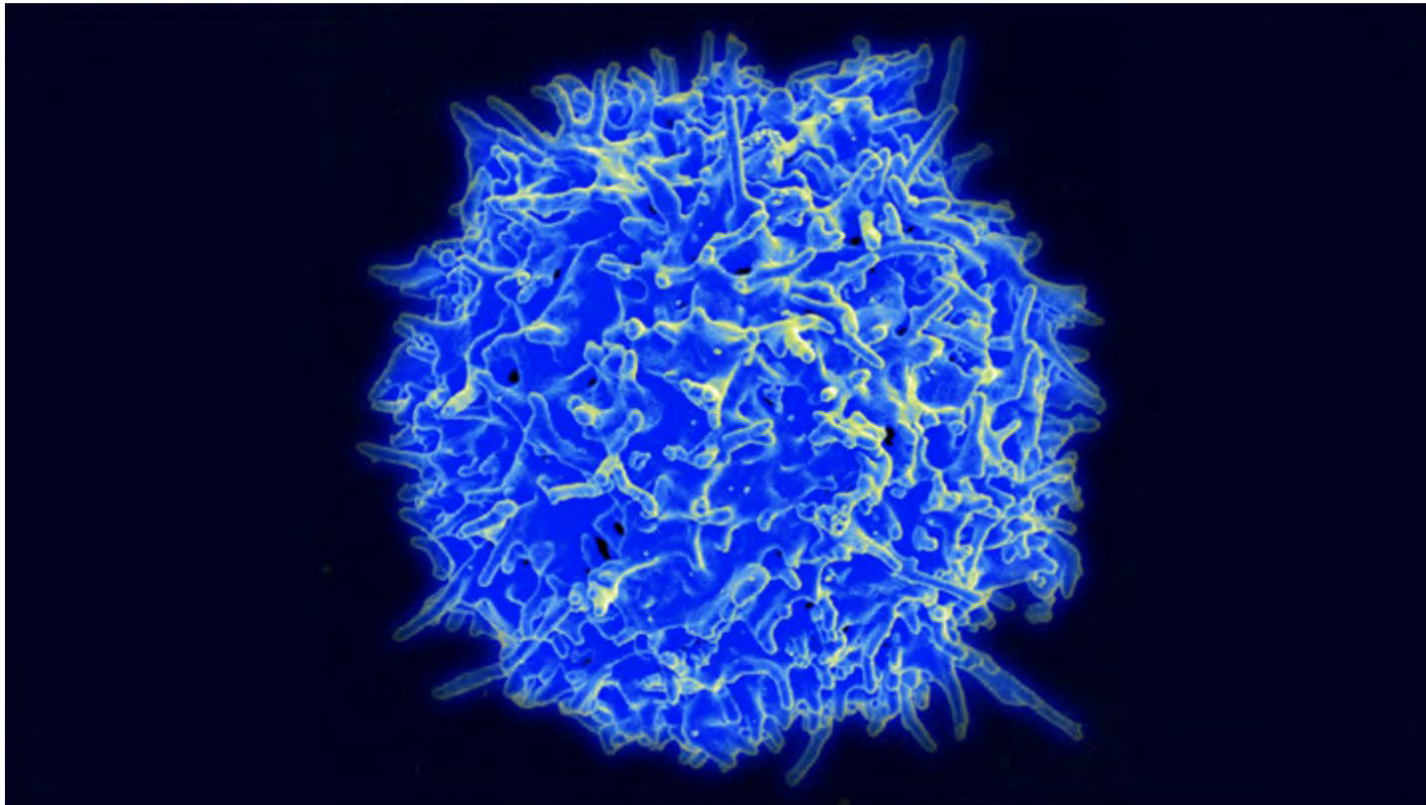
[NIH.gov](#)

[Blog Home](#)

[Director's Album](#)

Immune T Cells May Offer Lasting Protection Against COVID-19

Posted on July 28th, 2020 by [Dr. Francis Collins](#)



nature

<https://doi.org/10.1038/s41586-020-2550-z>

Accelerated Article Preview

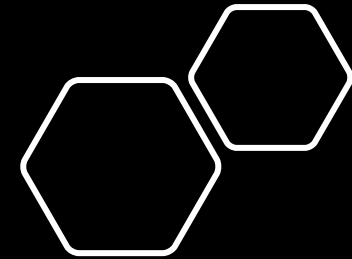
SARS-CoV-2-specific T cell immunity in cases of COVID-19 and SARS, and uninfected controls

Received: 20 May 2020

Accepted: 7 July 2020

Accelerated Article Preview Published
online 15 July 2020

Nina Le Bert, Anthony T. Tan, Kamini Kunasegaran, Christine Y. L. Tham, Morteza Hafezi, Adeline Chia, Melissa Hui Yen Chng, Meiyin Lin, Nicole Tan, Martin Linster, Wan Ni Chia, Mark I-Cheng Chen, Lin-Fa Wang, Eng Eong Ooi, Shirin Kalimuddin, Paul Anantharajal Tambyah, Jenny Guek-Hong Low, Yee-Joo Tan & Antonio Bertolotti





Insights into Healthcare Disparities





Research Letter | Health Policy

Assessment of Community-Level Disparities in Coronavirus Disease 2019 (COVID-19) Infections and Deaths in Large US Metropolitan Areas

Samrachana Adhikari, PhD; Nicholas P. Pantaleo, MPH; Justin M. Feldman, ScD; Olugbenga Ogedegbe, MD; Lorna Thorpe, PhD; Andrea B. Troxel, ScD

Table 1. Summary of County-Level Poverty, Income, Race/Ethnicity, and COVID-19 Infections and Deaths per 100 000 Residents, by CSA

CSA (No. of counties)	Median (range)		Population belonging to minority racial/ethnic group, %	Cumulative COVID-19 incident infections per 100 000 residents	Cumulative COVID-19 deaths per 100 000 residents
	Population below poverty, %	County-level income, \$			
Atlanta (28)	12.4 (5.0-24.4)	62 554 (38 886-105 921)	34.1 (6.3-89.6)	259.4 (101.3-984.1)	7.6 (2.7-68.2)
Boston (19)	8.0 (5.3-17.5)	76 373 (56 141-100 374)	16.3 (7.7-55.3)	491.3 (147.0 -1900.6)	31.8 (1.2-92.0)
Chicago (17)	9.4 (4.2-16.2)	66 720 (53 060-93 540)	24.4 (3.0-58.3)	457.7 (52.9-1022.4)	16.7 (1.9-62.4)
Detroit (10)	10.7 (5.0-21.7)	62 356 (46 440-84 048)	17.4 (5.8-50.7)	290.0 (129.0-1033.2)	27.6 (2.0-119.9)
Los Angeles (5)	12.7 (9.1-14.9)	67 986 (63 310-89 373)	64.8 (55.4-74.4)	136.0 (78.7-315.5)	5.2 (2.2-15.2)
Miami (6)	12.1 (10.7-16.0)	57 714 (52 043-61 735)	44.0 (22.0-88.4)	208.5 (62.5-515.5)	10.4 (3.7-17.9)
New Orleans (11)	17.9 (11.8- 24.6)	50 830 (36 850-67 585)	37.3 (18.3-69.4)	1085.9 (340.3 -1869.9)	73.3 (20.8-177.4)
New York City (36)	10.6 (4.4-27.3)	79 662 (38 566-119 731)	36.7 (5.9-91.8)	1317.8 (43.6-3821.8)	93.5 (1.4-271.3)
Philadelphia (18)	10.8 (5.7-24.3)	68 348 (46 149-99 224)	27.6 (14.7-65.7)	606.5 (171.3-961.6)	34.9 (12.6 -69.7)
Seattle (8)	8.9 (7.5-13.7)	73 711 (58 239-94 822)	25.4 (19.6-40.8)	188.5 (41.6-326.1)	8.4 (0.3-22.2)

Abbreviation: COVID-19, coronavirus disease 2019; CSA, combined statistical area.

CLINICAL INVESTIGATION

COVID-19 Infections and Deaths among Connecticut Nursing Home Residents: Facility Correlates

Yue Li, PhD,*  Helena Temkin-Greener, PhD,* Gao Shan, MS,[†] and Xueya Cai, PhD[†]



“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

—World Health Organization

Obesity

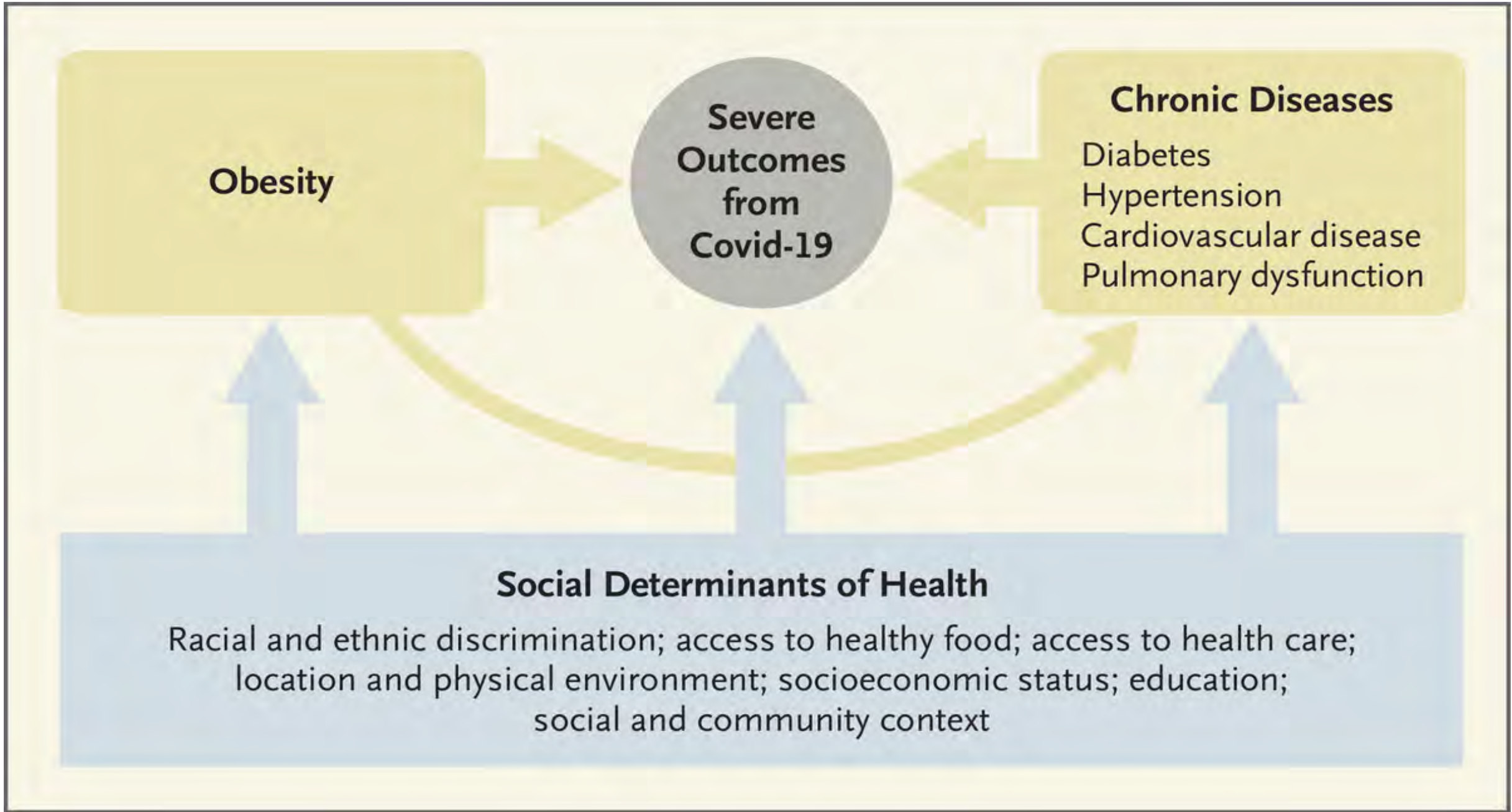
**Severe
Outcomes
from
Covid-19**

Chronic Diseases

Diabetes
Hypertension
Cardiovascular disease
Pulmonary dysfunction

Social Determinants of Health

Racial and ethnic discrimination; access to healthy food; access to health care;
location and physical environment; socioeconomic status; education;
social and community context



The 360° View



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SOUNDING BOARD

Covid-19 — Implications for the Health Care System

David Blumenthal, M.D., M.P.P., Elizabeth J. Fowler, Ph.D., J.D., Melinda Abrams, M.S.,
and Sara R. Collins, Ph.D.

A photograph of a desk setup. In the foreground, an open notebook with a black pen resting on it is the central focus. The notebook's pages are lined, and some faint text is visible on the right page. To the right of the notebook, a smartphone is partially visible. In the background, a laptop is open, and a stack of papers or documents is scattered on the desk. The lighting is soft and natural, creating a professional and organized atmosphere.

Open Discussion



THE FLORIDA SOCIETY
FOR POST-ACUTE AND
LONG-TERM
CARE MEDICINE

**400 Executive Center Drive, Suite 208
West Palm Beach, FL 33401**

www.fmda.org; www.bestcarepractices.org



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