



FMDA Journal Club

April 8, 2020

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Treating COVID-19+ Patients in Place in PA/LTC: Part II – Pharmaceutical Management

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

Agenda

COVID 19 state of the state

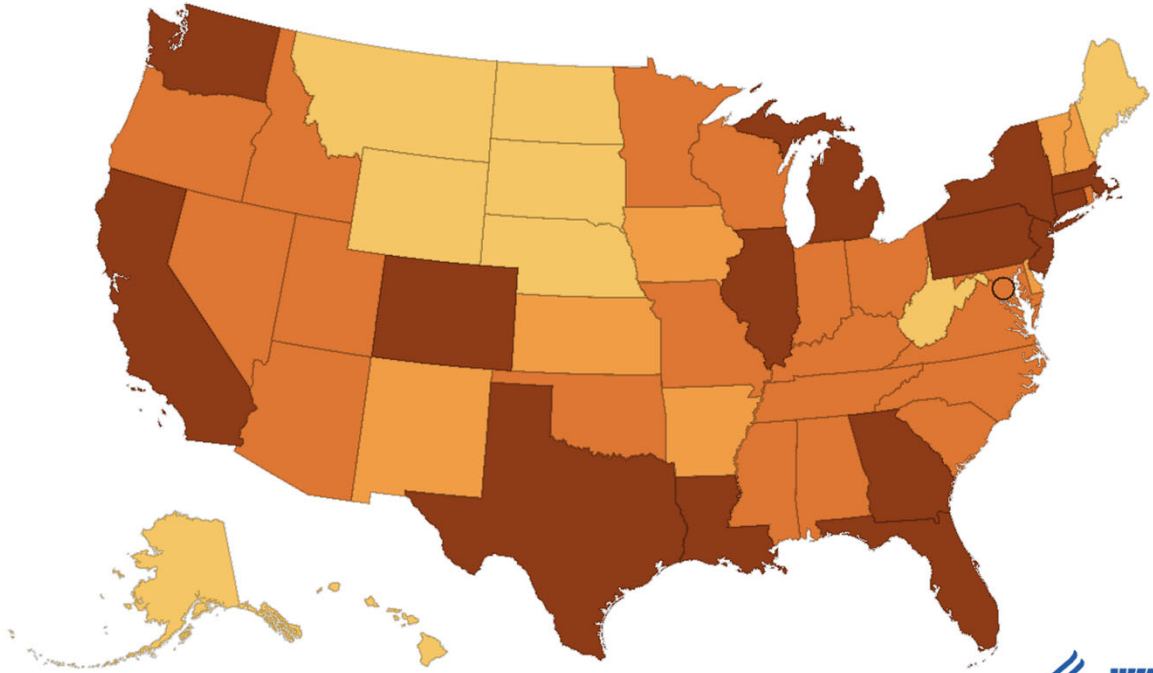
CMS update & Literature Review

Pharmacy Deep Dive

Open Discussion

Quick Review: Telehealth

States Reporting Cases of COVID-19 to CDC*



Reported Cases
(last updated April 7, 2020)

- None
- 6 to 50
- 101 to 500
- 501 to 1000
- 1001 to 5000
- 5001 or more

Territories AS GU MH FM MP PW PR VI



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



Total Confirmed

399,929

Confirmed Cases by
Country/Region/Sovereignty

399,929 US
146,690 Spain
135,586 Italy
110,070 France
107,663 Germany
82,809 China
64,586 Iran
55,957 United Kingdom
34,109 Turkey
23,403 Belgium
22,789 Switzerland
20,678 Netherlands

Admin0 Admin1 Admin2

Last Updated at (M/D/YYYY)

4/8/2020, 8:15:00 AM

184

countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Visualization: [JHU CSSE](#). Automation Support: [Esri Living Atlas team](#) and [JHU APL](#). Contact US. [FAQ](#).

Data sources: WHO, CDC, ECDC, NHC, DXY, 1point3acres, Worldometers.info, BNO, state and national government health departments, and local media reports. Read more in this blog.



Cumulative Confirmed Cases

Active Cases

Esri, FAO, NOAA

Total Deaths

12,911

4,009 deaths
New York City **New York** US

500 deaths
Nassau **New York** US

402 deaths
Wayne **Michigan** US

283 deaths
Westchester **New York** US

263 deaths
Bergen **New Jersey** US

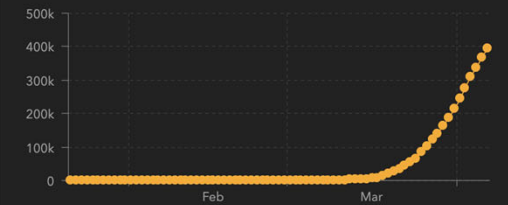
263 deaths
Suffolk **New York** US

249 deaths
Cook **Illinois** US

Total Recovered

22,539

22,539 recovered
US



Confirmed

Logarithmic

Daily Increase



Florida's COVID-19 Data and Surveillance Dashboard

Florida Department of Health, Division of Disease Control and Health Protection

Total Cases

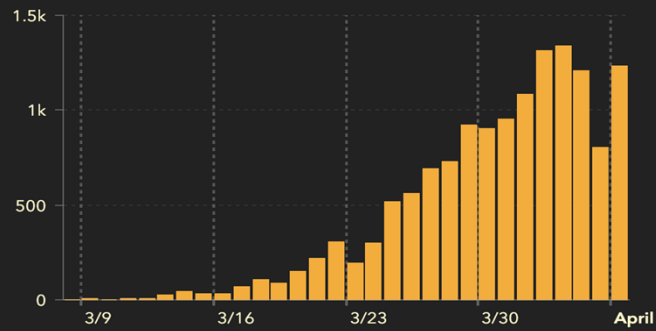
14,747

Positive Residents
14,302

Hospitalizations
1,893

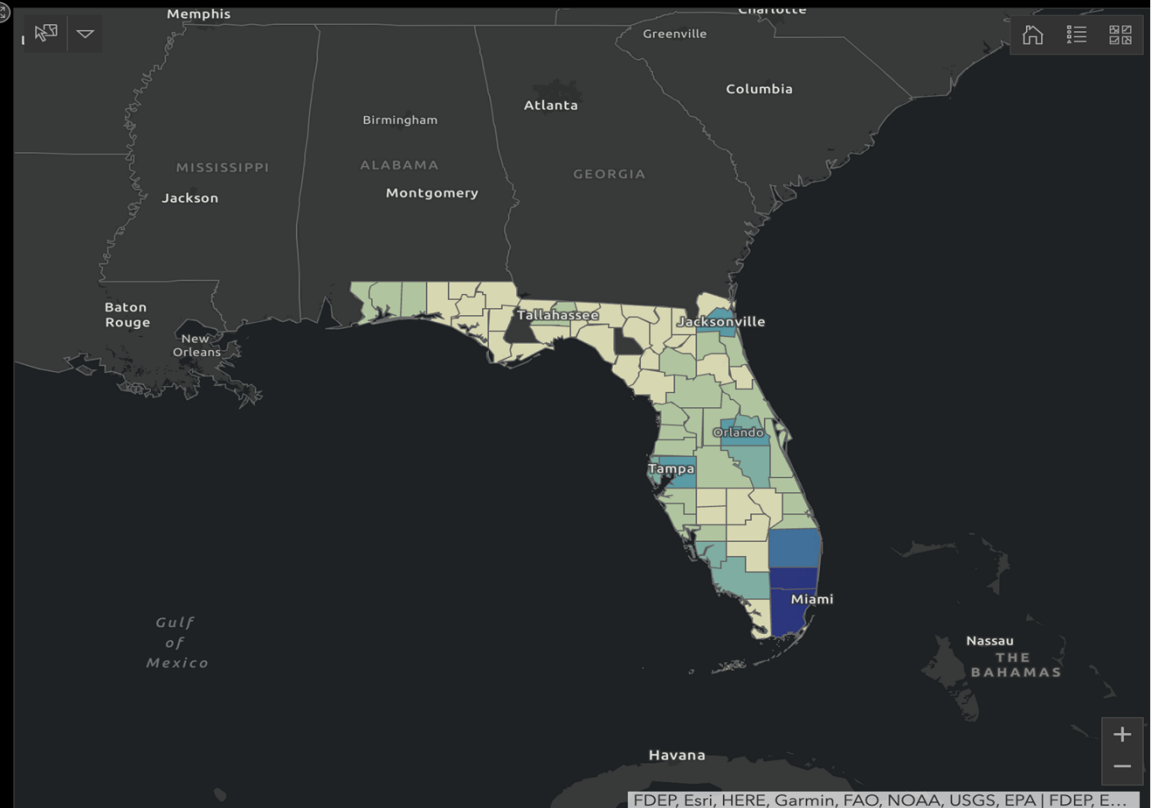
Deaths
296

New Cases by Day: Last 30 Days



Recent Cases

All Time



FDEP, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA | FDEP, E...

Florida case data is updated at approximately 11:30 a.m. and 6:30 p.m. daily.

Florida Cases

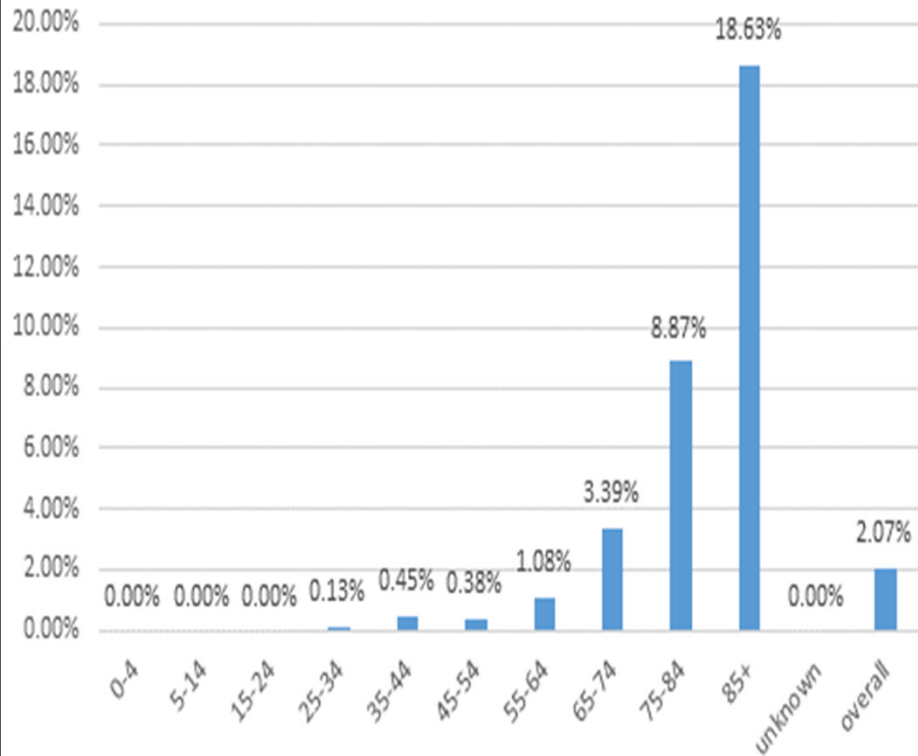
Florida Testing

Cases by County

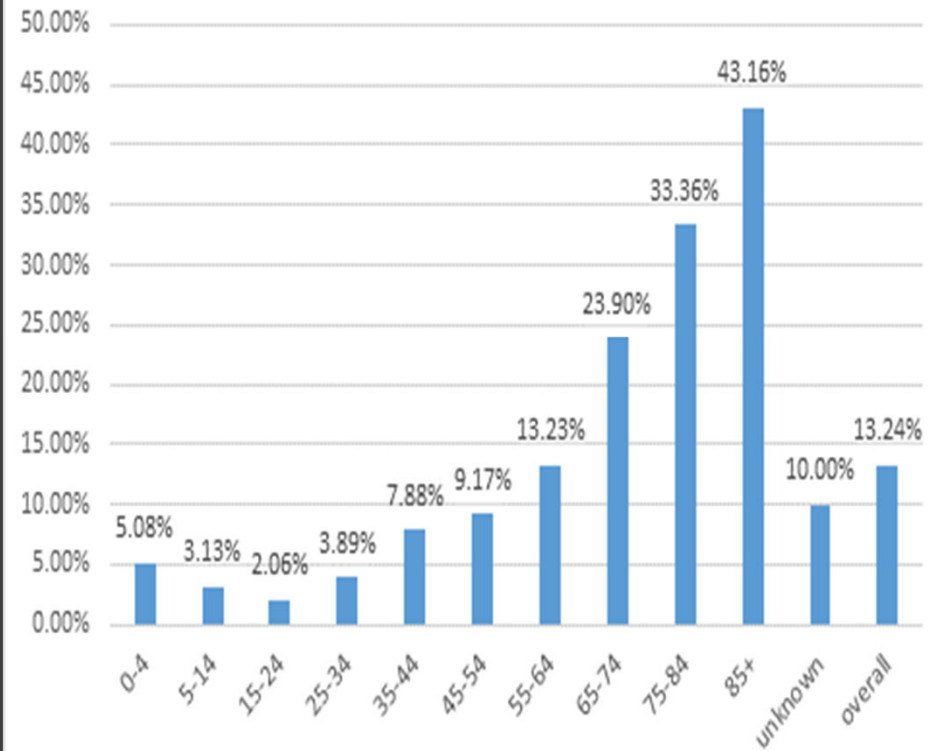
Cases by Zip Code

USA and World

Mortality Rate - by age



Hospitalization rate - by age



Florida Stats

updated 4/7/2020

United States of America

Hospital resource use

3 days until peak resource use on
April 11, 2020

Resources needed for COVID-19 patients on peak date

All beds needed
94,249 beds



Bed Shortage
15,852 beds

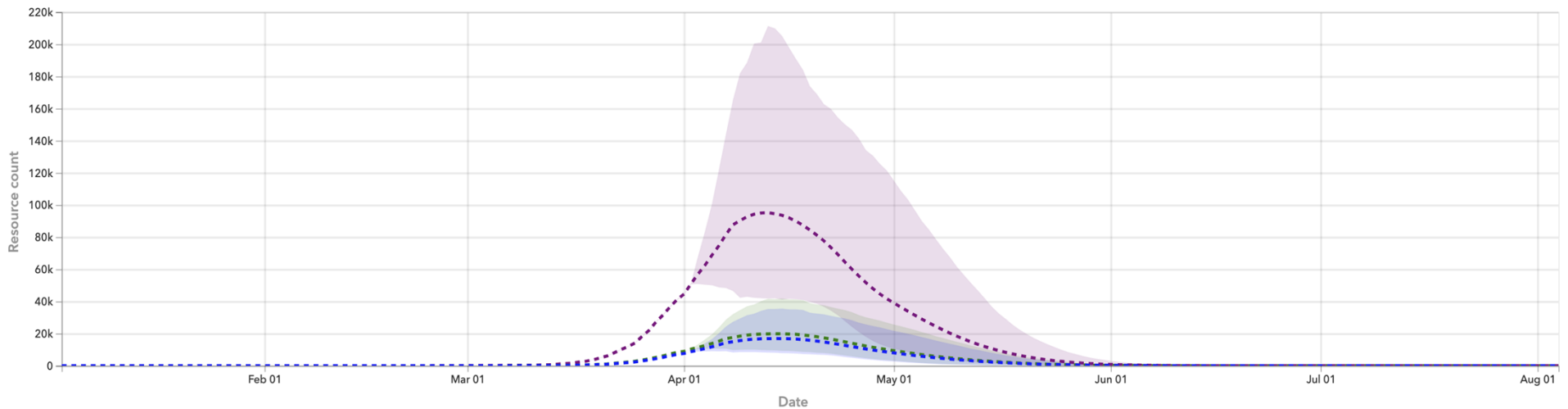
ICU beds needed
19,438 beds



ICU Bed Shortage
9,047 beds

Invasive ventilators needed
16,524 ventilators

All resources | All beds | ICU beds | Invasive ventilators



--- All beds needed (projected) --- ICU beds needed (projected) --- Invasive ventilators needed (projected)

All resources specific to COVID-19 patients.
Shaded areas indicate uncertainty

Florida

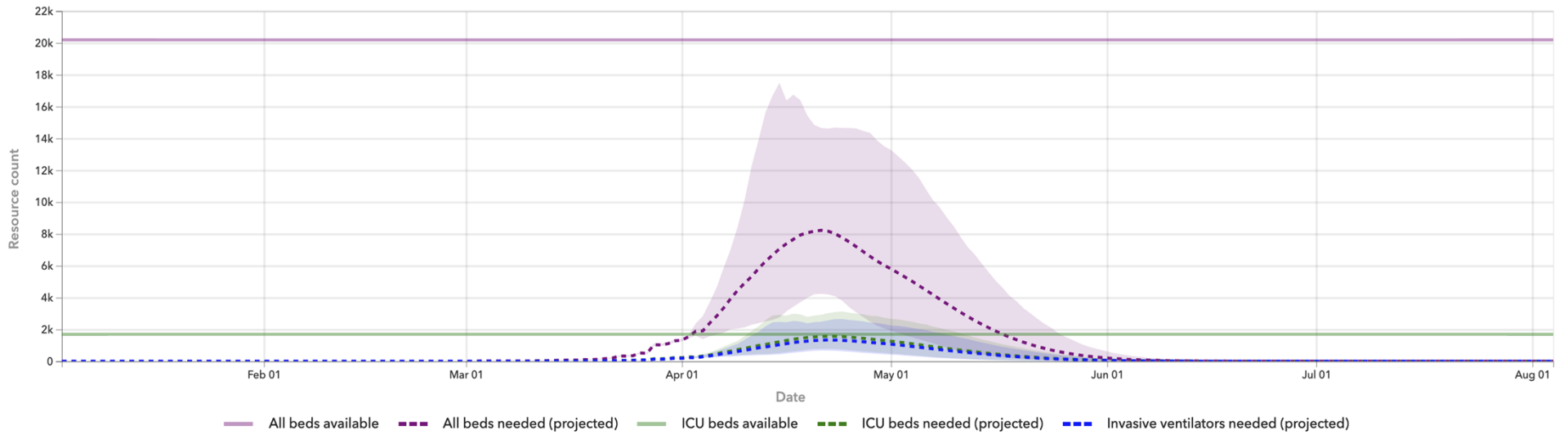
Hospital resource use ⓘ

13 days until peak resource use on
April 21, 2020

Resources needed for COVID-19 patients on peak date

All beds needed 8,224 beds	→	All beds available 20,184 beds	→	Bed Shortage 0 beds
ICU beds needed 1,557 beds	→	ICU beds available 1,695 beds	→	ICU Bed Shortage 0 beds
Invasive ventilators needed 1,323 ventilators				

All resources | All beds | ICU beds | Invasive ventilators



All resources specific to COVID-19 patients.
Shaded areas indicate uncertainty ⓘ



COVID-19 Long-Term Care Facility Guidance

April 2, 2020

The Centers for Medicare & Medicaid Services (CMS) and the Centers for Disease Control and Prevention (CDC) are issuing new recommendations to State and local governments and long-term care facilities (also known as nursing homes) to help mitigate the spread of the 2019 Novel Coronavirus (COVID-19). Long-term care facilities are a critical component of America's healthcare system. They are unique, as they serve as both healthcare providers and as full-time homes for some of the most vulnerable Americans.

Viewpoint

ONLINE FIRST FREE

March 25, 2020

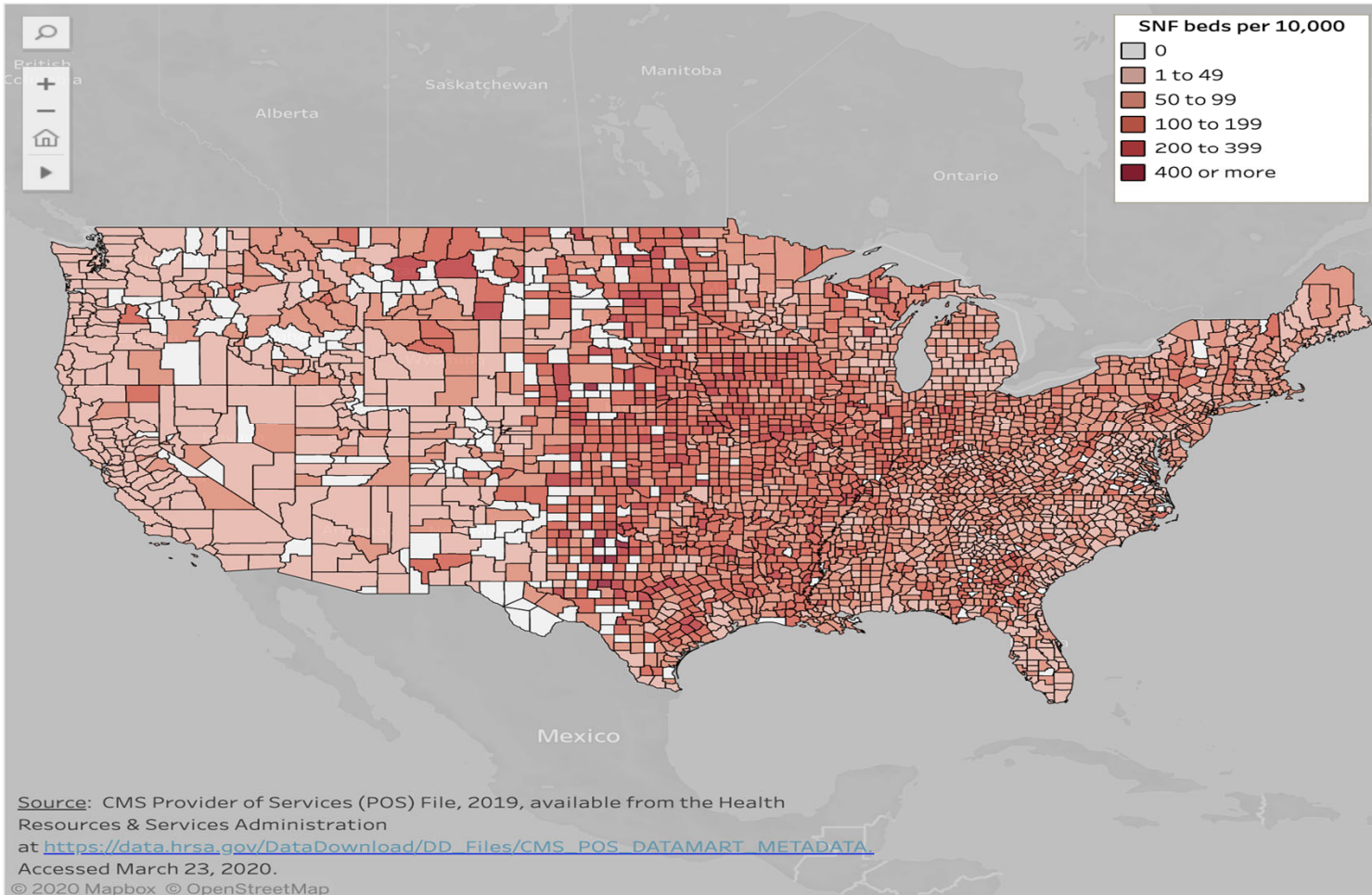
Postacute Care Preparedness for COVID-19 Thinking Ahead

David C. Grabowski, PhD¹; Karen E. Joynt Maddox, MD, MPH^{2,3,4}

» [Author Affiliations](#) | [Article Information](#)

JAMA. Published online March 25, 2020. doi:10.1001/jama.2020.4686

Skilled Nursing Facility Beds, 2019





Pharmacy Deep Dive

Pharmacy Deep Dive - Preparedness



Ensure lines of communication between you, your pharmacy and your consultant pharmacist



Be aware of prescribing requirements and restrictions ahead of time to eliminate potential delays in therapy




Review your emergency ordering procedures



Review your emergency kit or automated dispensing system contents




Review your patients receiving nebulizer treatments or other aerosol-generating treatments



COVID-19 Pharmaceutical Management

- Initial Treatment
 - hydroxychloroquine (HCQ) / chloroquine (CQ)
 - FDA: HCQ 800mg day 1, 400mg daily for 4-7 days. CQ 1000mg day 1, 500mg daily for 4-7 days. Duration depends on response.
 - CDC lists several regimens:
 - HCQ 400mg BID day 1, then 400mg daily for five days
 - HCQ 400mg BID day 1, then 200mg twice daily for four days
 - HCQ 600mg BID day 1, then 400mg daily for four days
 - azithromycin
 - Open-label study added standard “Z-Pak” dosing: 500mg Day 1, then 250mg for days 2 through 5



COVID-19 Pharmaceutical Monitoring

- QTc prolongation – monitoring highly recommended, especially for those at risk
 - Multiple QTc prolonging medications:
 - azithromycin and other macrolides; quinolones (Levaquin etc); keto/fluconazole
 - Tricyclics – doxepin, amitriptyline, imipramine
 - amiodarone, dronedarone, sotalol, flecainide, quinidine, procainamide, disopyramide
 - haloperidol, quetiapine, olanzapine
 - donepezil, cilostazol, methadone, ondansetron, escitalopram / citalopram
 - Electrolyte abnormalities – diuretic use
 - Age > 65
 - Female
- CBC / LFTs / SCr – there is growing evidence of significant renal and hepatic dysfunction acutely and post-infection (duration?)
 - Increases risk for pharmacokinetic interactions with pre-existing treatments

Other medication considerations

- Protease inhibitors – (e.g. ritonavir) no evidence of benefit in COVID-19
- IL-6 pathway inhibitors – anecdotal reports only, trials ongoing
- ACE-inhibitors
 - there is no evidence that supports the speculation of higher risk
 - ACC / AHA / HFSA issued statement recommending continuing in patients already receiving for heart failure, hypertension, ischemic heart disease
- Immunotherapies should be evaluated on a case by case basis
- Nebulizers
 - Convert COVID positive and PUI to non-aerosol generating therapies when possible
- NSAIDs – anecdotal reports of worsening symptoms w/o definitive studies. Consider APAP as first line for fever; continue NSAIDs / COX2s case by case

COVID-19 Deprescribing Considerations

- Evaluate medications in the context of acute or post-acute COVID illness, particularly renally cleared medications
 - narrow therapeutic window
 - Digoxin, lithium
 - vancomycin (IV), aminoglycosides – ensure pharmacy is aware when dosing
 - Metformin, H2 antagonists (famotidine), DPP-4 inhibitors (gliptins)
 - Gabapentin / pregabalin
 - Dabigatran
 - Benzodiazepines
 - Statins
 - NSAIDs, COX2 inhibitors

COVID-19 Deprescribing Considerations - Others

- Evaluate “non-essential” medications – evaluate on case by case basis; weigh short and long-term risk and benefit
 - Vitamins, OTCs, Herbals
 - Acid-reducing medications
 - Cholesterol treatments
 - Osteoporosis treatments
 - Dementia and psychiatric treatments
 - Appetite medications (mirtazapine)
 - Limited duration medications – cough and cold



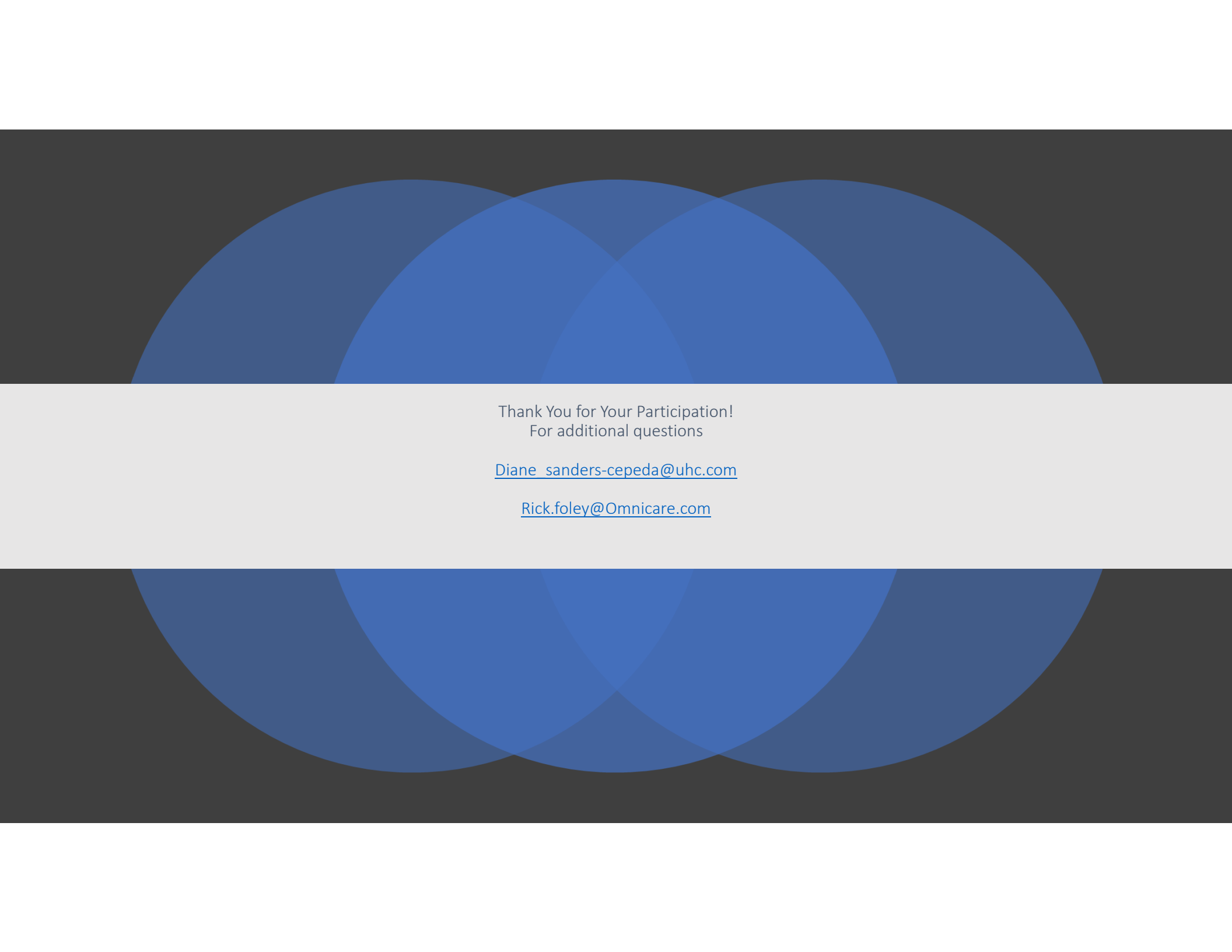
Open Discussion





Quick Review: Telehealth

TYPE OF SERVICE	WHAT IS THE SERVICE?	HCPCS/CPT CODE	Patient Relationship with Provider
MEDICARE TELEHEALTH VISITS	A visit with a provider that uses telecommunication systems between a provider and a patient.	Common telehealth services include: <ul style="list-style-type: none"> • 99201-99215 (Office or other outpatient visits) • G0425–G0427 (Telehealth consultations, emergency department or initial inpatient) • G0406–G0408 (Follow-up inpatient telehealth consultations furnished to beneficiaries in hospitals or SNFs) For a complete list: https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes	For new* or established patients. *To the extent the 1135 waiver requires an established relationship, HHS will not conduct audits to ensure that such a prior relationship existed for claims submitted during this public health emergency
VIRTUAL CHECK-IN	A brief (5-10 minutes) check in with your practitioner via telephone or other telecommunications device to decide whether an office visit or other service is needed. A remote evaluation of recorded video and/or images submitted by an established patient.	<ul style="list-style-type: none"> • HCPCS code G2012 • HCPCS code G2010 	For established patients.
E-VISITS	A communication between a patient and their provider through an online patient portal.	<ul style="list-style-type: none"> • 99421 • 99422 • 99423 • G2061 • G2062 	For established patients.



Thank You for Your Participation!
For additional questions

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