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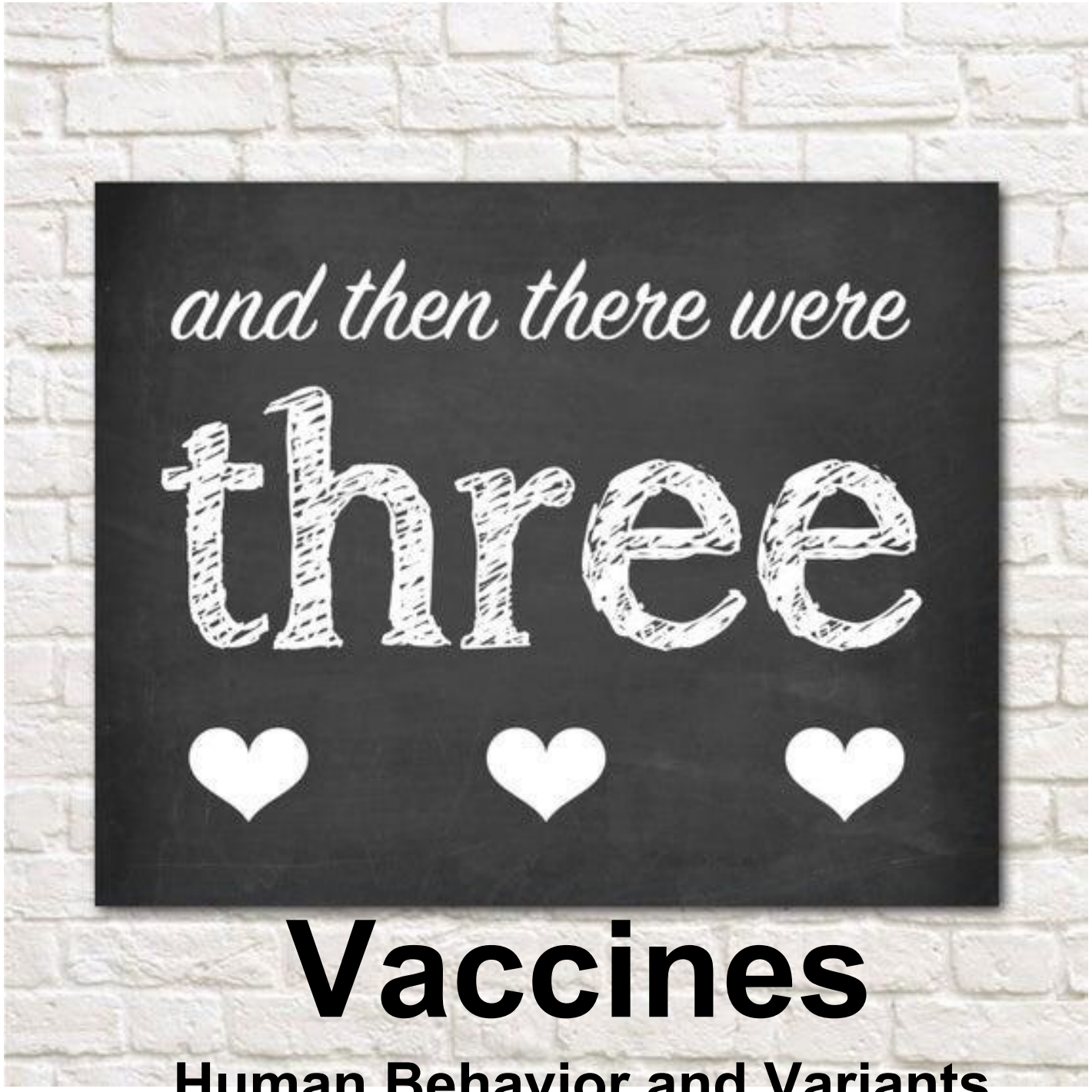
Covid-19 and Equity Update

Maryland Department of Health
Maryland Primary Care Program
Program Management Office

3 March 2021



Vaccines

Human Behavior and Variants

Important Items This Week

- Covid epidemiologic indicators improved but flattening
- Vaccines in Phase 1c but supply remains low
- Mass Vaccine sites opened
- Identify and treat patients using monoclonal antibodies
- Emerging variants of Coronavirus
- Lack of health equity highlighted during pandemic
- Vaccine and mAb hesitancy are best addressed by trusted providers
- Now is the time to prepare for provider vaccination programs

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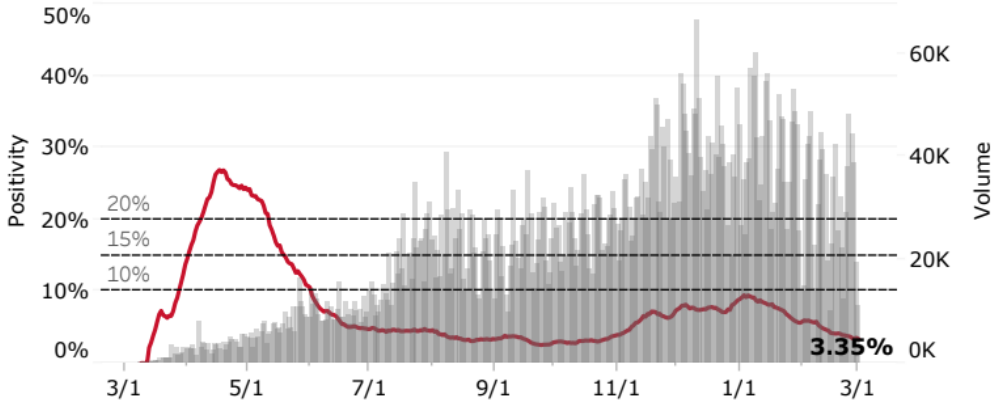
Daily COVID-19 Report

Data reported as of 3/2/2021 for data through 3/1/2021

383,170	7,917,331	13.1	6,679	7,723
cases cumulative	tests cumulative	7-day avg. case rate	total hospital adult census	deaths cumulative
468	**11,040**	**3.35%**	**-91**	**26**
cases reported yesterday	tests reported yesterday	7-day avg. positivity	change in total hospital census	deaths reported yesterday

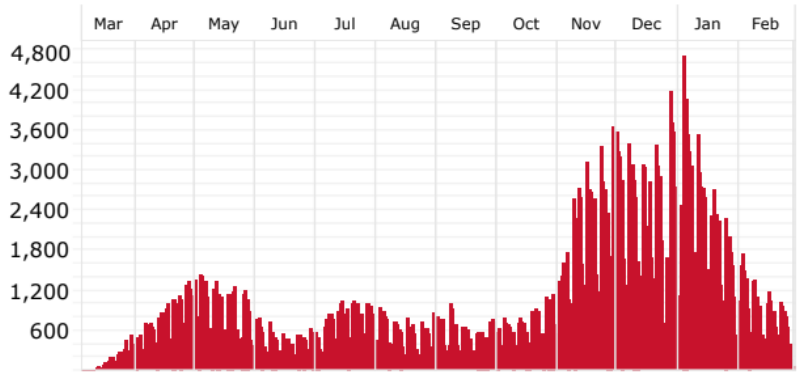
7-Day Avg. Percent Positivity and Total Testing Volume

Since 3/1/20

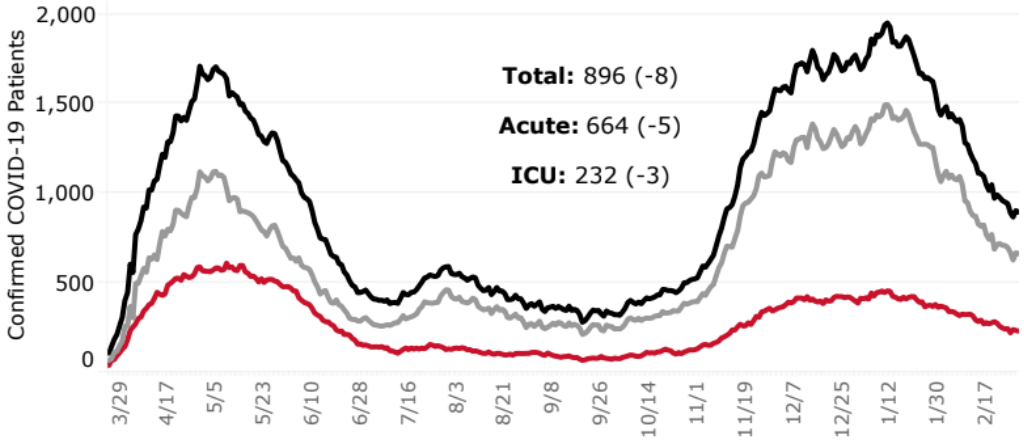


Daily New Cases

by Specimen Collection Date

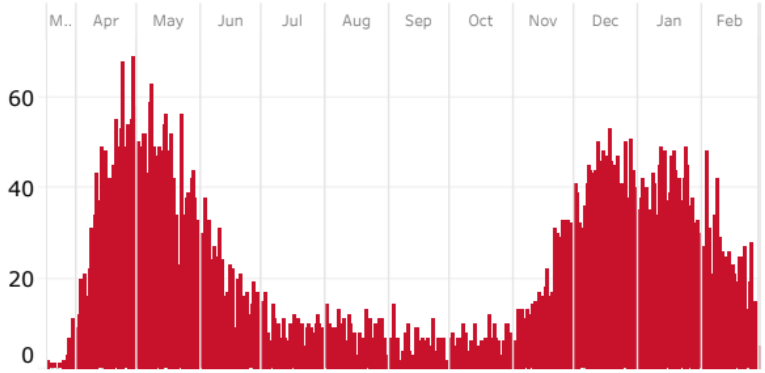


Statewide Acute/ICU Beds Occupied by COVID Patients



Daily Deaths

Confirmed and Probable



Case rate calculated as total confirmed cases per 100,000 population using the 2019 Maryland Population estimates from the Maryland Department of Planning, March 2020.

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Equity Impacts During Covid

- Testing
- Cases
- Hospitalization
- Deaths
- Vaccination
- Other therapies - mAbs

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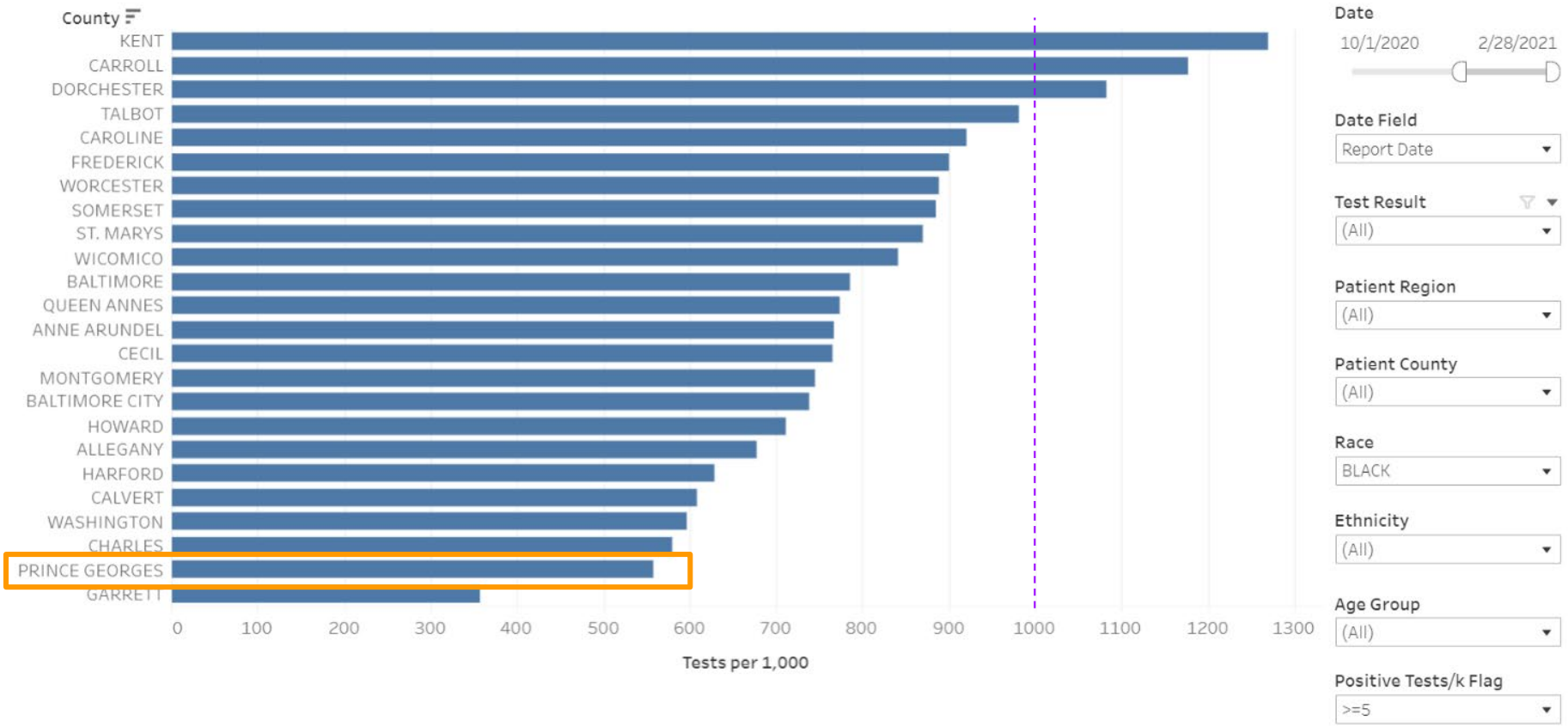
African American Covid Testing / 1000



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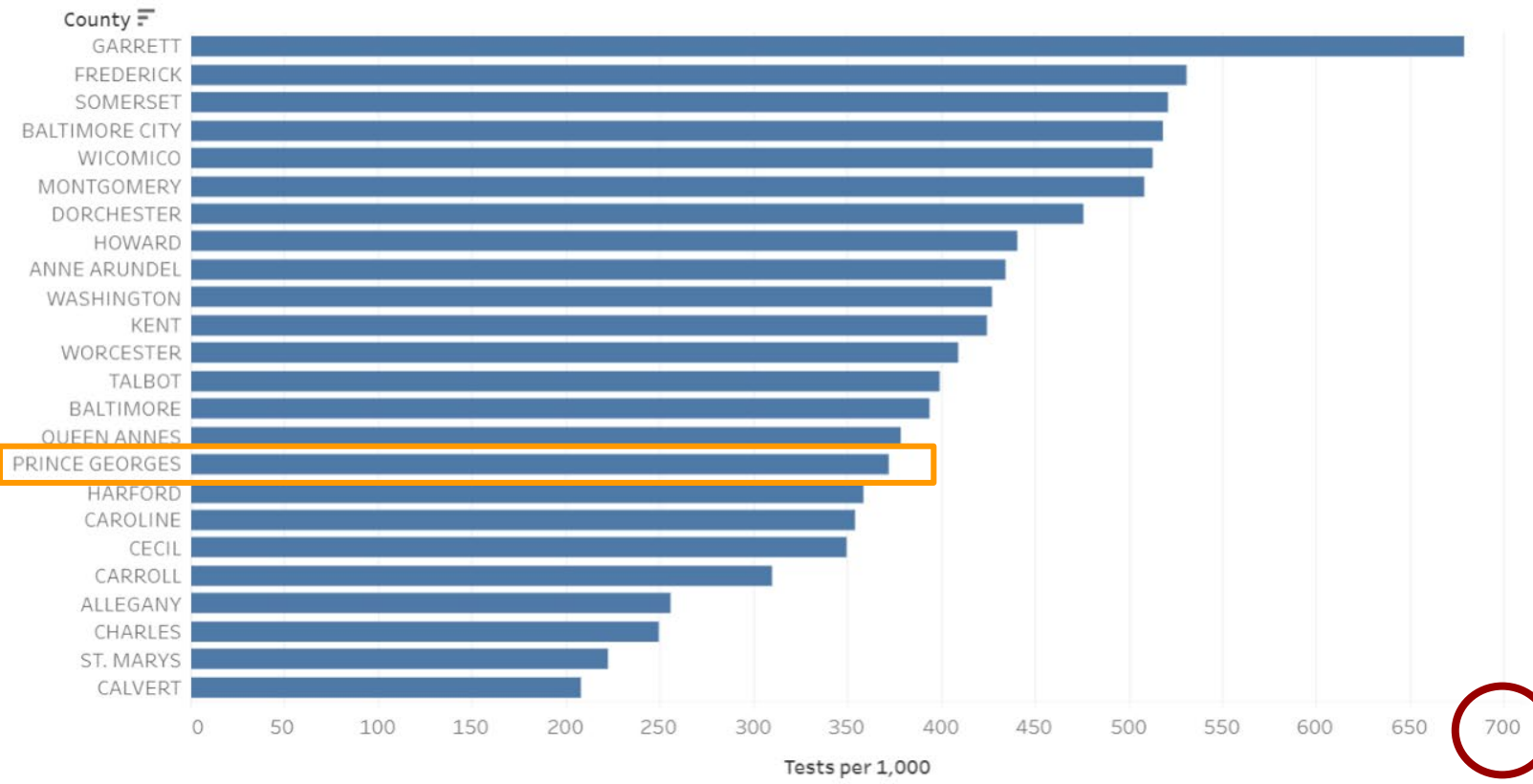
Source: CRISP, 10/1/20-2/28/21

Hispanic Covid Testing per 1000



Date
10/1/2020 2/28/2021

Date Field
Report Date

Test Result
(All)

Patient Region
(All)

Patient County
(All)

Race
(All)

Ethnicity
HISPANIC

Age Group
(All)

Positive Tests/k Flag
>=5

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Source: CRISP, 10/1/20-2/28/21

Maryland Resident Recorded COVID-19 Deaths

Reported as of March 1, 2021 at 5:00pm

Race / Ethnicity	Confirmed Number	Confirmed % of Total	Probable* Number	Probable* % of Total
Hispanic	708	9%	15	8%
NH Black	2,649	34%	65	36%
NH White	3,954	51%	95	52%
NH Asian	266	3%	7	4%
NH Other	78	1%	0	0%
Unknown	68	1%	0	0%

Race / Ethnicity	Population by Race 2019	Mortality Rate per 100,000 population**
Hispanic	643,822	110.0
NH Black	1,866,852	141.9
NH White	3,090,330	127.9
NH Asian	426,593	62.4
NH Other		
Unknown		

*Probable indicates signs and symptoms of COVID-19 but lab test results not available.
**Based on confirmed COVID-19 deaths.

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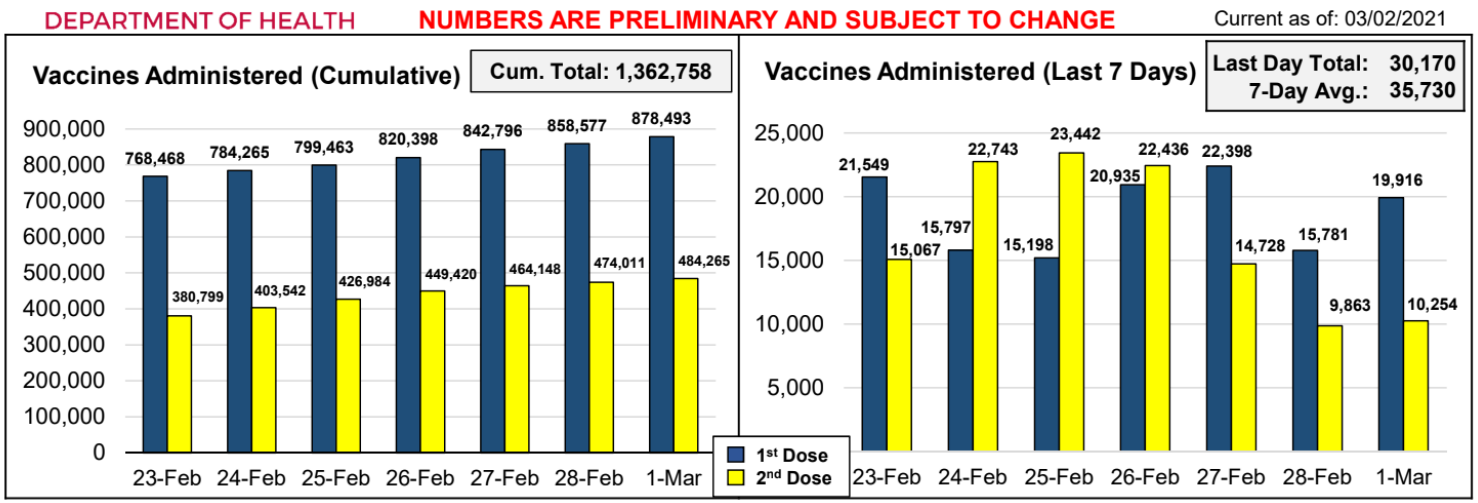
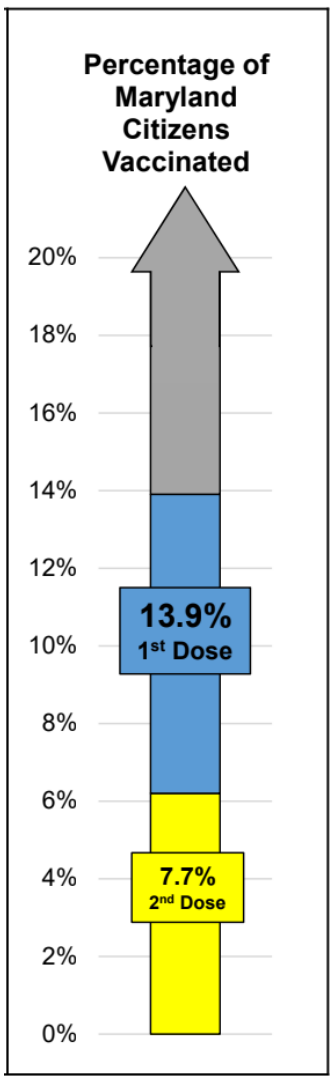
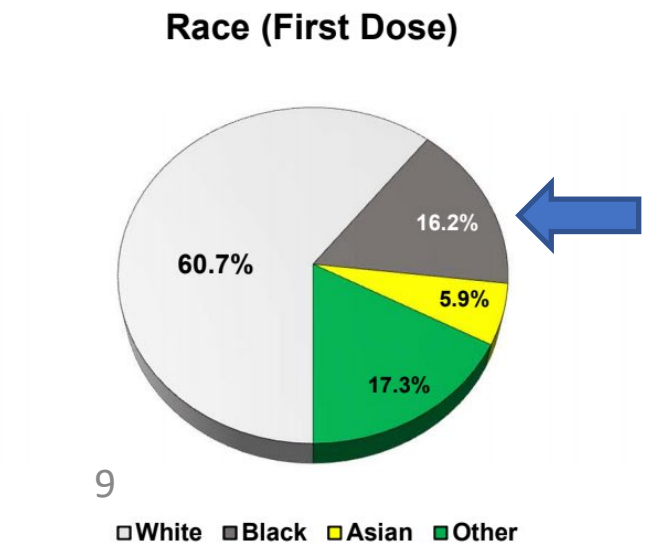
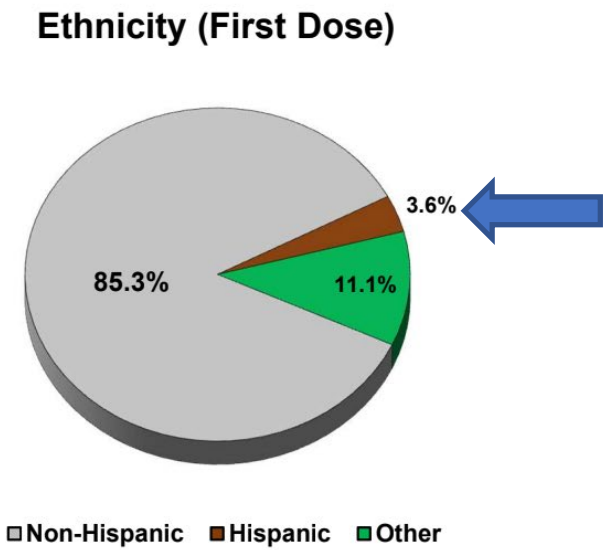
Vaccine Administration









Equity call to action

- Equitable Access - make sure all of your patients know how to reach you during Covid for care, testing and/or referrals
- Use the CRISP Vaccine Tracking Tool to outreach to your African American and Hispanic patients about Covid vaccination
  - Reduce vaccine hesitancy
  - Guide to vaccine sites

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Projection and Current Allocation - Vaccination

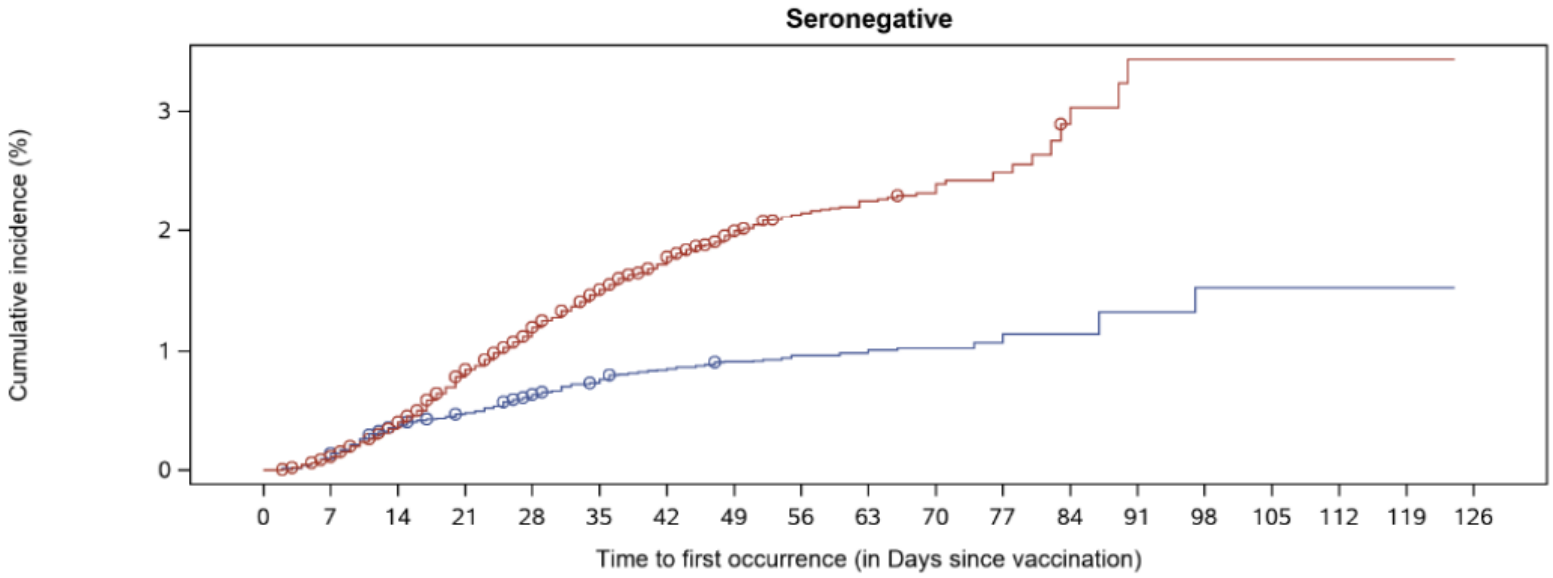
Current Allocation	~72,000 per week
Current number vaccinated (1st dose)	878,493
Target for Herd Immunity (70%)	4,200,000
Approximate left to reach target	3,321,507
Weeks to herd immunity at current rate	46
ETA Herd Immunity ❖ Sooner as vaccine rate increases ❖ Sooner if count natural immunity ❖ May be affected by variants, new vaccines	Jan 2022

Source: WBAL

Updated 3/2/2021

J and J Vaccine compared to placebo

Figure 1. Cumulative Incidence Curve of Centrally Confirmed Moderate to Severe/Critical COVID-19 Cases With Onset at Least 1 Day After Vaccination, Full Analysis Set



Primary endpoint - 66.9% (95% CI 59.0, 73.4) when considering cases occurring at least 14 days after the single-dose vaccination and 66.1% (55.0, 74.8) when considering cases occurring at least 28 days after vaccination.

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Source: FDA Briefing Document

J and J Vaccine Efficacy

- **Primary endpoint** - *moderate to severe/critical lab designated Covid*
  - 66.9% (95% CI 59.0, 73.4) - cases occurring at least 14 days after vaccination
  - 66.1% (55.0, 74.8) - cases occurring at least 28 days after vaccination

- **Secondary endpoints** - *severe/critical lab designated Covid*
  - 76.7% (54.6, 89.1) - cases occurring at least 14 days after vaccination
  - 85.4% (54.2, 96.9) - cases occurring at least 28 days after vaccination

- Post hoc analysis:

	Placebo	**Vaccine**
Hospitalizations	29 (16 after 28 days)	2 (none after 28 days)
Deaths	7	0

- The FDA review showed the vaccine was less effective in people 60 and older who also have comorbidities such as diabetes or heart disease. The agency noted, though, that the data was too sparse to draw conclusions.

Source: FDA Briefing Document, page 28 for >60 subgroup analysis

Severe/Critical Case definition

- Clinical signs at rest indicative of severe systemic illness (respiratory rate ≥30 breaths/minute, heart rate ≥125 beats/minute, oxygen saturation (SpO2) ≤93% on room air at sea level, or partial pressure of oxygen/fraction of inspired oxygen (PaO2/FiO2) <300 mmHg)
- Respiratory failure (defined as needing high-flow oxygen, non-invasive ventilation, mechanical ventilation, or extracorporeal membrane oxygenation [ECMO])
- Evidence of shock (defined as systolic blood pressure <90 mmHg, diastolic blood pressure <60 mmHg, or requiring vasopressors)
- Significant acute renal, hepatic, or neurologic dysfunction
- Admission to the ICU
- Death

Country to Country variants

- There was country-to-country variation in VE estimates for the prevention of moderate to severe/critical COVID-19 and severe/critical COVID-19, but the confidence intervals were overlapping. Predominant strains among those sequenced were **Wuhan-H1 variant D614G in the U.S. (96.4% of sequenced cases),** 20H/501Y.V2 variant **(B.1.351) in South Africa** (94.5% of sequenced cases), and variant of the **P.2 lineage in Brazil** (69.4% of sequenced cases, with the remaining 30.6% Wuhan-H1 variant D614G). **There were no cases identified as B.1.1.7 or P1 lineages as of February 12, 2021.**

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Participant Demographics

Geographically, 46.7% of subjects participated in the United States, 17.3% in Brazil, 12.7% in South Africa, and the remaining 23.3% in 5 different countries in Latin America

Subgroup	Ad26.COV2.S	Placebo	All Participants
Per-protocol set	19630	19691	39321
Age group (years)			
18-59	12830 (65.4%)	12881 (65.4%)	25711 (65.4%)
≥60	6800 (34.6%)	6810 (34.6%)	13610 (34.6%)
≥65	3984 (20.3%)	4018 (20.4%)	8002 (20.4%)
≥75	755 (3.8%)	693 (3.5%)	1448 (3.7%)
Sex			
Female	8702 (44.3%)	8777 (44.6%)	17479 (44.5%)
Male	10924 (55.6%)	10910 (55.4%)	21834 (55.5%)
Undifferentiated	2 (<0.1%)	4 (<0.1%)	6 (<0.1%)
Unknown	2 (<0.1%)	0	2 (<0.1%)
Race			
American Indian or Alaska Native	1643 (8.4%)	1628 (8.3%)	3271 (8.3%)
Asian	720 (3.7%)	663 (3.4%)	1383 (3.5%)
Black or African American	3374 (17.2%)	3390 (17.2%)	6764 (17.2%)
Native Hawaiian or other Pacific Islander	54 (0.3%)	45 (0.2%)	99 (0.3%)
White	12200 (62.1%)	12216 (62.0%)	24416 (62.1%)
Multiple	1036 (5.3%)	1087 (5.5%)	2123 (5.4%)
Unknown	603 (3.1%)	662 (3.4%)	1265 (3.2%)
Ethnicity			
Hispanic or Latino	8793 (44.8%)	8936 (45.4%)	17729 (45.1%)
Not Hispanic or Latino	10344 (52.7%)	10259 (52.1%)	20603 (52.4%)
Unknown	493 (2.5%)	496 (2.5%)	989 (2.5%)

J and J vaccine safety

- Injection site pain (48.6%)
- Headache (38.9%)
- Fatigue (38.2%)
- Myalgia (33.2%)
- Rare tinnitus, thromboembolic events, not statistically different from control
- One case serious allergic reaction - not anaphylaxis
- No deaths, no hospitalizations

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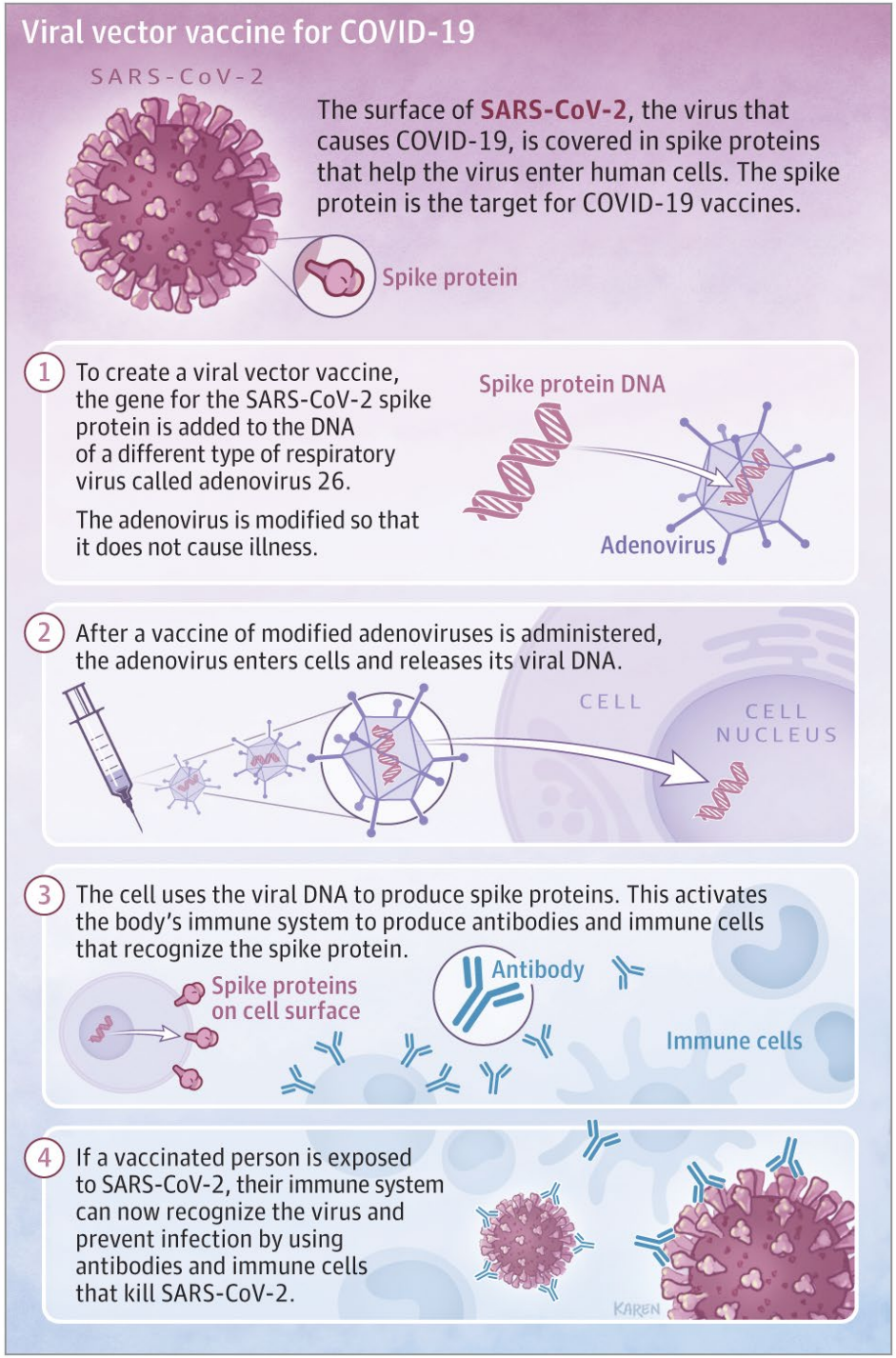
Viral vector vaccine for COVID-19
SARS-CoV-2
The surface of SARS-CoV-2, the virus that causes COVID-19, is covered in spike proteins that help the virus enter human cells. The spike protein is the target for COVID-19 vaccines.
Spike protein
1
To create a viral vector vaccine, the gene for the SARS-CoV-2 spike protein is added to the DNA of a different type of respiratory virus called adenovirus 26.
The adenovirus is modified so that it does not cause illness.
Spike protein DNA
Adenovirus
2
After a vaccine of modified adenoviruses is administered, the adenovirus enters cells and releases its viral DNA.
CELL
CELL NUCLEUS
3
The cell uses the viral DNA to produce spike proteins. This activates the body's immune system to produce antibodies and immune cells that recognize the spike protein.
Spike proteins on cell surface
Antibody
Immune cells
4
If a vaccinated person is exposed to SARS-CoV-2, their immune system can now recognize the virus and prevent infection by using antibodies and immune cells that kill SARS-CoV-2.
KAREN

Source: JAMA

Maryland was allocated 49,600 J&J doses this week

- Initial allocation - federal government shipping entire current inventory to jurisdictions

J&J Vaccine Fact Sheets

- Frequently asked questions about the Johnson & Johnson vaccine
- Fact sheet for healthcare providers
- Fact sheet for recipients and caregivers

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Source: Office of Governor Larry Hogan

Which vaccine should I get?

The first available!

Current Vaccine Providers

- Local Health Departments
- Hospitals
- National Pharmacy Chains
- Local Pharmacies
- Kaiser
- FQHCs
- State Mass vax sites
- 88.9% of Maryland clinicians in a recent non-representative survey indicated in the last four weeks their practice wanted to administer a Covid vaccine but could not access it

Current State Mass Vax Sites

- Baltimore Convention Center
- M/T Stadium
- Six Flags
- Regency stadium

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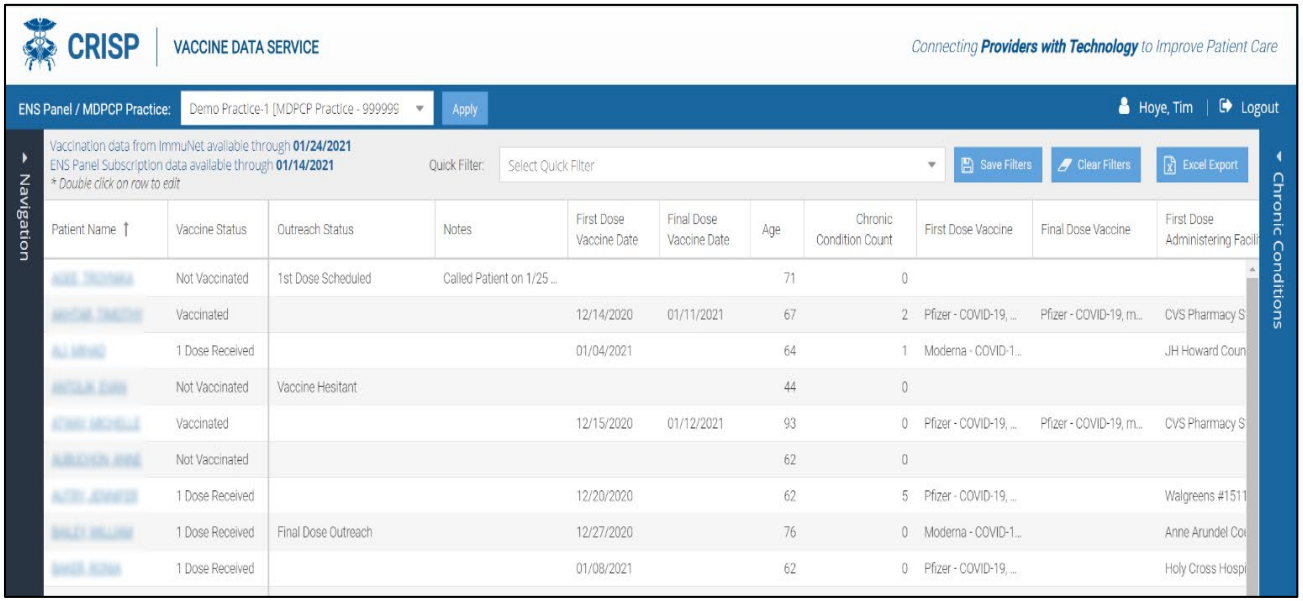
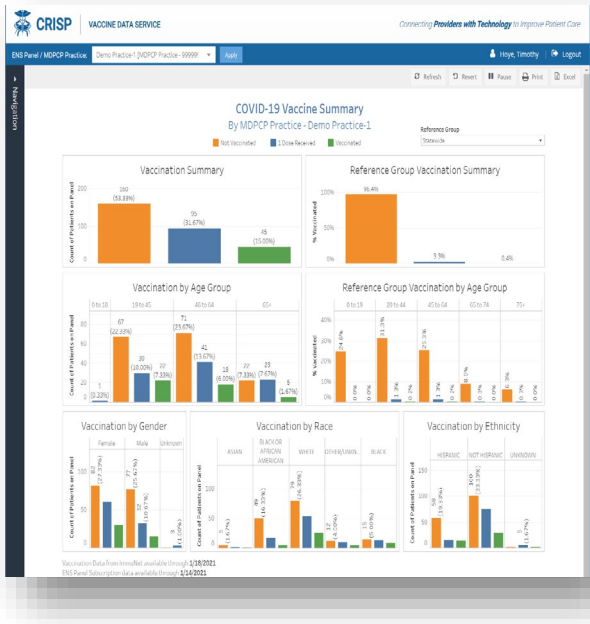
Source: Larry A Green Center

CRISP Vaccine Tracking Tool





- This tool is live! User Guide Link: https://vacctrac.crisphealth.org/#help/User%20Guide
- Vaccination data updated daily from ImmuNet (IIS)
- Includes patient demographics, Chronic Condition Flags to identify patients at high risk
- Summary reports to compare statewide and compare by demographics

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COVID-19 Vaccination Support Center

- Maryland Departments of Health and Aging collaboration
- Designed to assist those without internet access to support Covid vaccination appointments
  - Available to all Marylanders who are eligible for a vaccine
- Open seven days a week, 7am-10pm
- Also targeting outgoing calls to segmented groups of seniors

1-855-MDGOVAX
(1-855-634-6829)

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Register in ImmuNet to be a potential Covid-19 Vaccinator

- Please register **as soon as possible** if your practice plans to order vaccines
- 2/11 Provider Letter
- ImmuNet COVID19 Vaccine Registration Guide (steps beginning page 2 for Non-VFC; page 5 for VFC)
- Registration completion does not mean the vaccine will immediately be available for ordering
  - Once ordering is open for all providers in ImmuNet, notification will be sent to all registered providers

MDPCP Practices fully onboarded in ImmuNet	365
MDPCP practices registered as Covid-19 vaccinators	109
Difference -- **these are the practices that should register as a Covid-19 vaccinator now**	**256**

Note: as of 2/12/21

Complete MDH "New Entity COVID VAX Clinic Info" Form

- Complete this form to indicate your vaccination capacity and hours of operation
  - Takes 2-5 minutes

Administrative Onboarding Steps to Prepare for Vaccination

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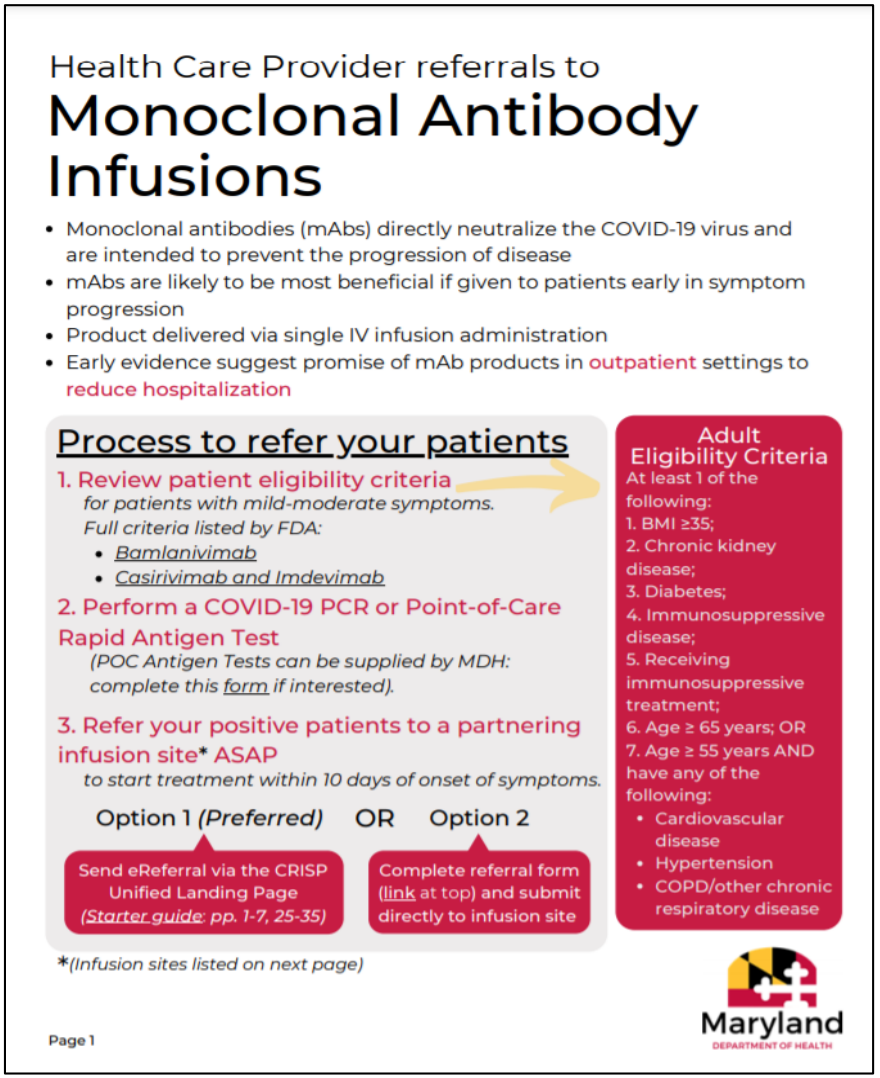
Monoclonal Antibody Referrals

- Early evidence suggests promise of mAb products in **OUTPATIENT** settings to **REDUCE HOSPITALIZATION**
- mAbs **likely to be most beneficial if given to patients early** in symptom progression
- CRISP Monoclonal Antibody eReferral Instructions

Keep this reference document handy for quick info on mAb referrals



Health Care Provider referrals to

Monoclonal Antibody Infusions

- Monoclonal antibodies (mAbs) directly neutralize the COVID-19 virus and are intended to prevent the progression of disease
- mAbs are likely to be most beneficial if given to patients early in symptom progression
- Product delivered via single IV infusion administration
- Early evidence suggest promise of mAb products in outpatient settings to reduce hospitalization

Process to refer your patients

1. Review patient eligibility criteria
   for patients with mild-moderate symptoms.
   Full criteria listed by FDA:
   - *Bamlanivimab*
   - *Casirivimab and Imdevimab*
2. Perform a COVID-19 PCR or Point-of-Care Rapid Antigen Test
   (POC Antigen Tests can be supplied by MDH: complete this form if interested).
3. Refer your positive patients to a partnering infusion site* ASAP
   to start treatment within 10 days of onset of symptoms.

Option 1 *(Preferred)* — Send eReferral via the CRISP Unified Landing Page *(Starter guide: pp. 1-7, 25-35)*

OR

Option 2 — Complete referral form (link at top) and submit directly to infusion site

Adult Eligibility Criteria

At least 1 of the following:
1. BMI ≥35;
2. Chronic kidney disease;
3. Diabetes;
4. Immunosuppressive disease;
5. Receiving immunosuppressive treatment;
6. Age ≥ 65 years; OR
7. Age ≥ 55 years AND have any of the following:
   - Cardiovascular disease
   - Hypertension
   - COPD/other chronic respiratory disease

*(Infusion sites listed on next page)

Page 1

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Source: Operation Warp Speed Therapeutics: Monoclonal Antibody Playbook for outpatient administration (Version 2.0)

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Weekly Summary: Monoclonal Antibody Allocation and Distribution

4,348	Monoclonal Antibody Infusions Administered: Nov - Feb 21 2021

- ***Maryland has avoided 204 hospitalizations due to monoclonal antibody infusions (number needed to treat = 21.3)***
- ***A total of approximately 270 infusions have occurred in the nursing home settings (out of the 4,348 infusions)***
- ***Approximately 35% of monoclonal antibody treatment received in state has been utilized at this point in time***

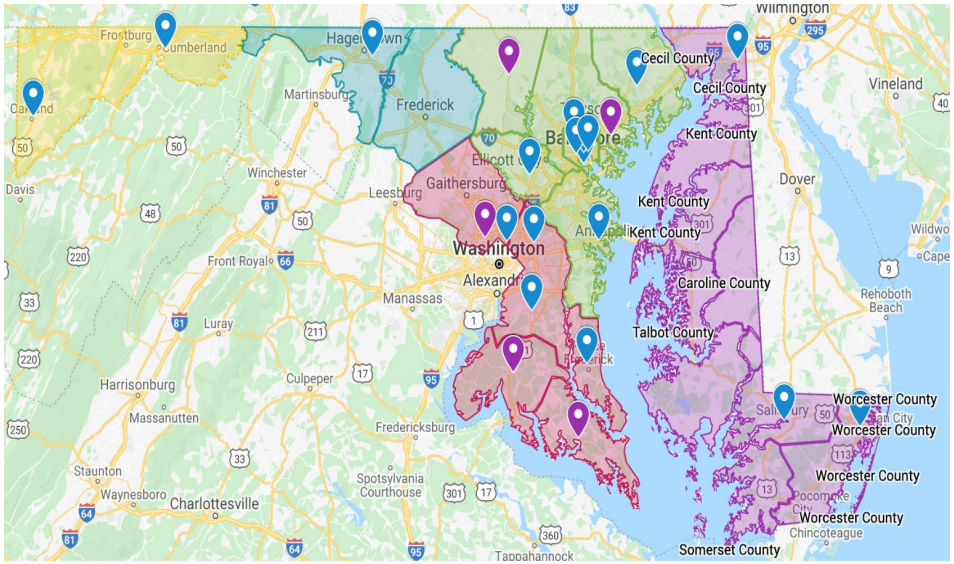

Figure 1. Summary Distribution of Infusion Sites across Maryland by Region

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Note: Blue indicated established hospital-based infusion sites.
Purple indicates planned regional subsidiary sites.

Updated as of 3/02/2021 for previous weeks (11/23 – 2/21/2021)

Point-of-Care Rapid Antigen Tests to Identify Monoclonal Antibody Eligible Patients

- Tests provided to practices willing to test and refer symptomatic patients eligible for mAb therapy
- Interested practices should fill out this Google Form as soon as possible
  - After filling out the form, Maryland Department of Health staff will contact you with next steps
- More information is available here

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CMS Guidance on Covid Test Cost Sharing

- Clarifies that private group health insurers cannot impose cost sharing for Covid-19 testing, regardless of patient symptoms or exposure
- Insurance plans not required to provide coverage of testing for public health surveillance or employment purposes
- **Link to guidance**

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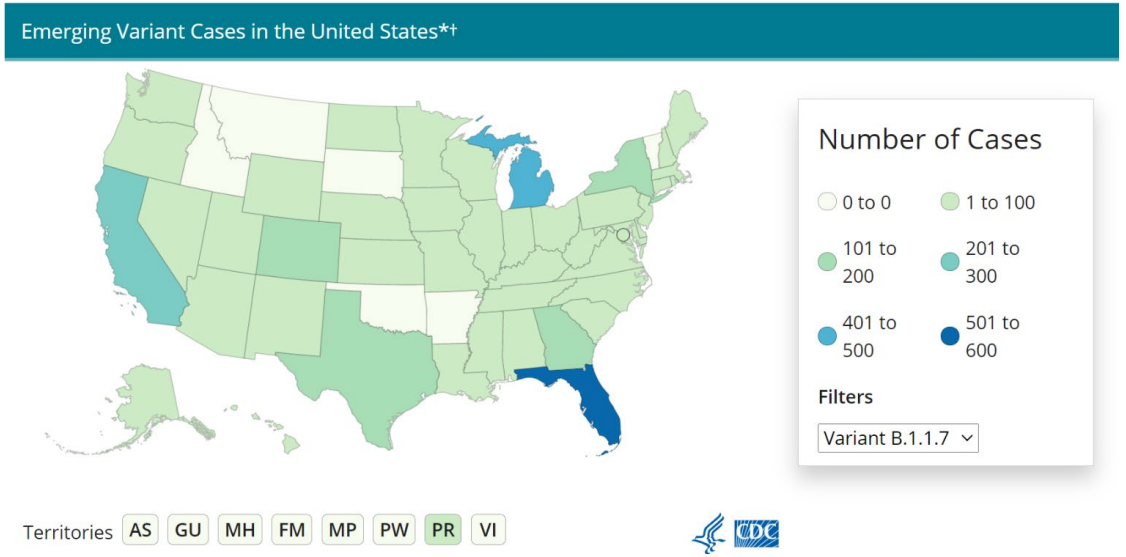
Emerging Variants in the United States

- On 2/17/2021, Governor Hogan announced state officials had confirmed a case of Covid in a Maryland resident that was caused by the P.1 variant
- New York variant B1.1.526 (25%)

New variant reporting to MDH



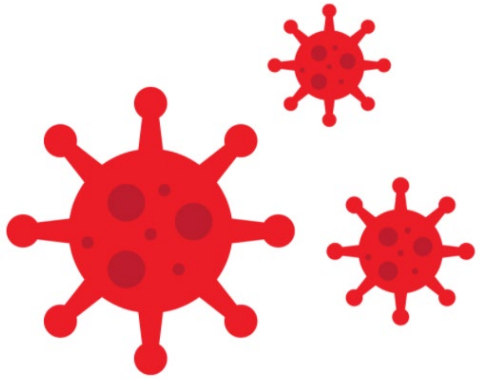
Variant	Reported Cases in US	Number of Jurisdictions Reporting
B.1.1.7	2400	46
B.1.351	53	16
P.1	10	5

Source: CDC, Office of Governor Larry Hogan

Updated 2/28/21

Variants take home messages

- Variants are normal and expected
- The vaccine are still highly effective against the variants
- Vaccine producers can make alterations if needed
- In regard to which vaccine to take
  - **Take the first available**



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How do we know when it is over?

- Vaccine rates and numbers are not the answer
- It is over when
  - Cases rates are at or near zero
  - Hospitalizations are at or near zero
  - Deaths are at or near zero
- Until then - facial coverings, social distancing, hand hygiene, avoid crowds
- Even after being vaccinated

"Everything will be okay in the end. If it's not okay, it's not the end."

— John Lennon

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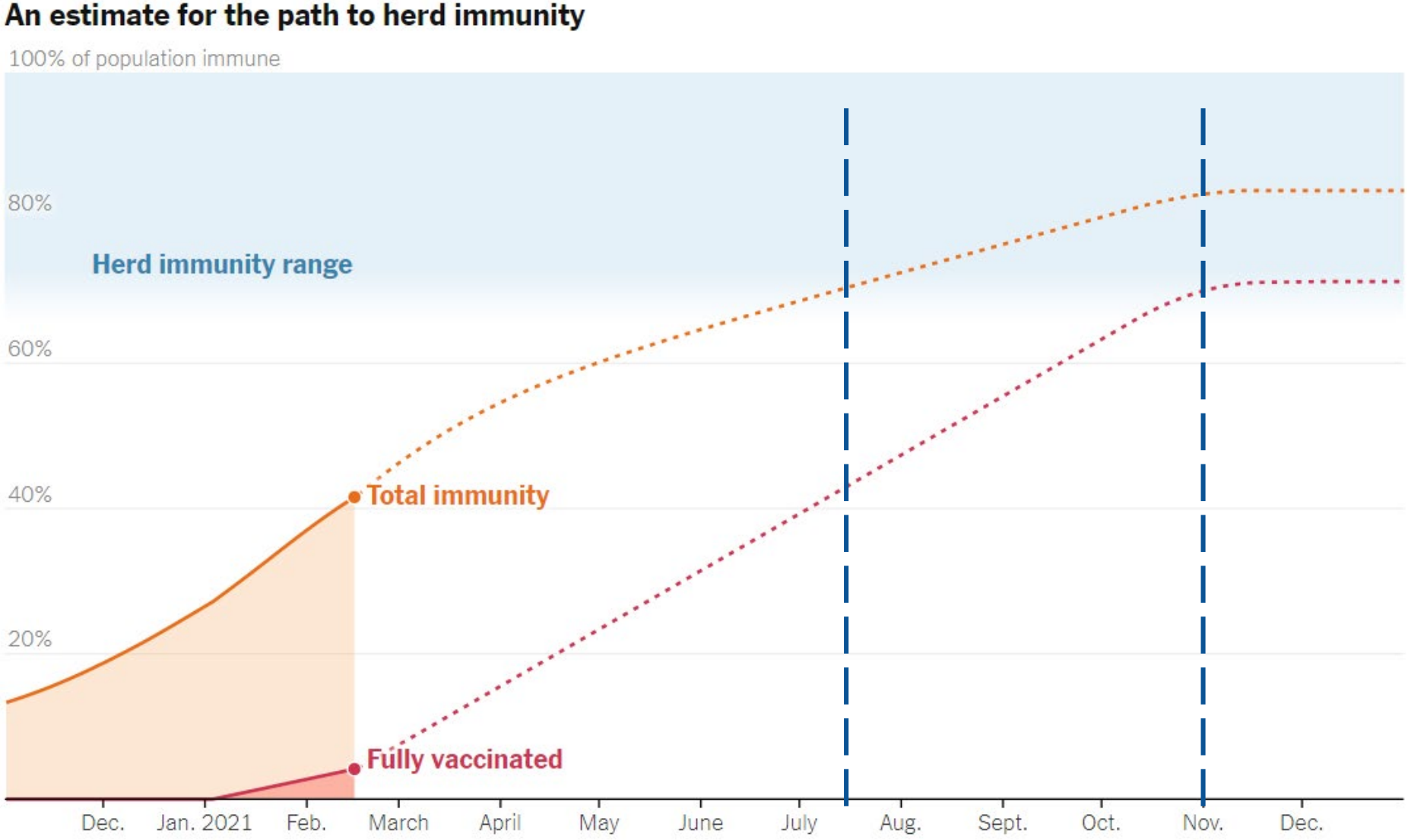

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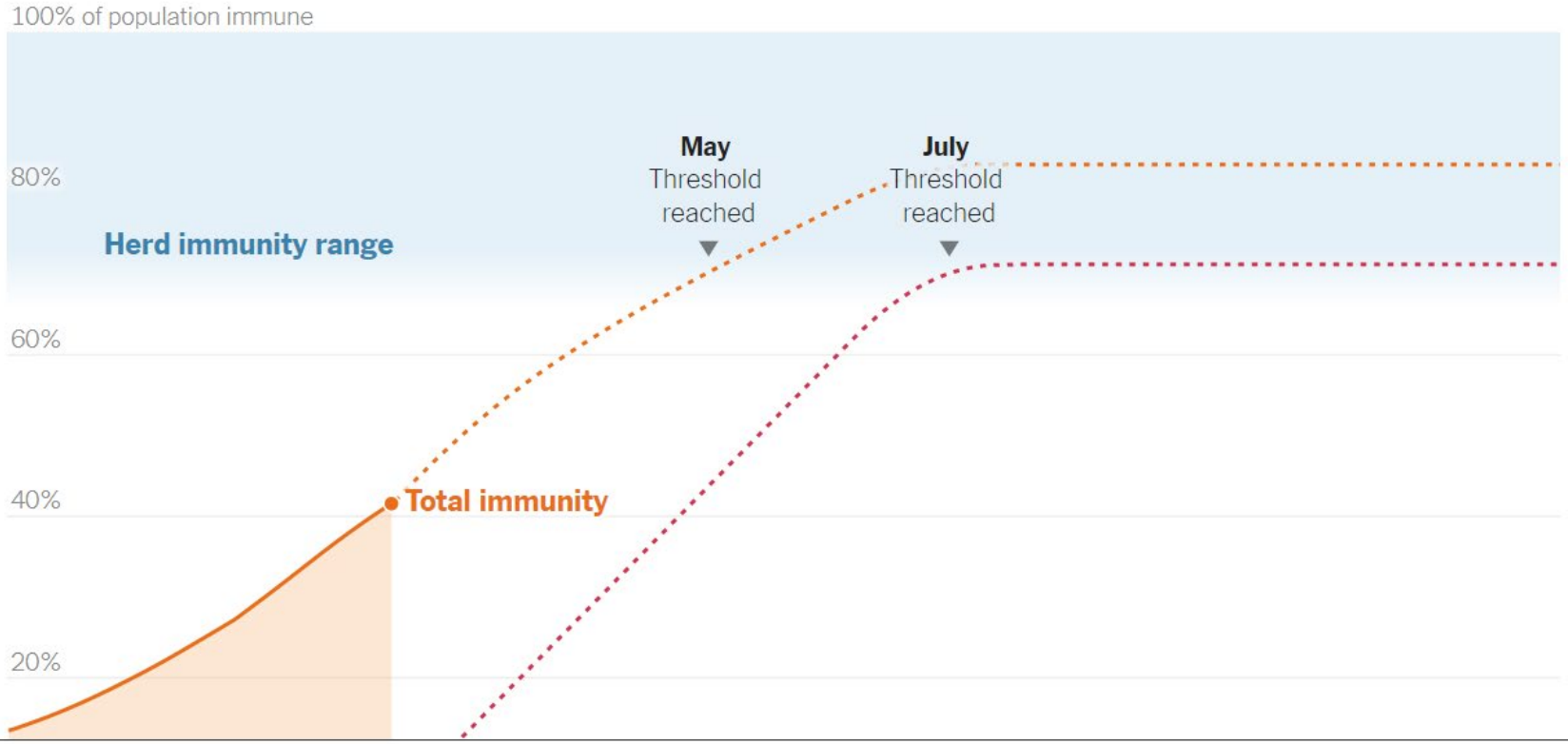
Source: New York Times

If the pace immediately increases to 3 million shots per day, we could reach the herd immunity threshold by **May**. In that time, **90,000** people could die from the virus.



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Source: New York Times

If we end restrictions in April, we could reach the herd immunity threshold by **June**. But in that time, **170,000** more people could die from the virus.

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Source: New York Times

Five things you can do to serve you patients

1. **Identify all your high risk patients** —use the Covid Vulnerability Index (CVI) in CRISP, your EHR, and your intuition and do outreach and communication

2. **Provide vulnerable patients with expanded care** through telemedicine and special accommodations if they need face-to-face care

3. **Offer testing for all patients, every visit – POC for those eligible for mAb therapy**

4. **Stay current, stay safe**—stay current by keeping up-to-date with CDC guidelines and case rates in your area. For up-to-date information, visit CDC, MDH, and MDPCP sites. Stay safe by taking all necessary infection control precautions when seeing patients

5. **Prepare for a vaccine** - address vaccine hesitancy with patients, register as a Covid vaccinator in ImmuNet and plan for administration

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CME Accreditation and Designation

- This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of MedChi, The Maryland State Medical Society, and The Maryland Department of Health. MedChi is accredited by the ACCME to provide continuing medical education for physicians.
- MedChi designates this live webinar educational activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Contact Frank Berry at **fberry@medchi.org**

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CME Disclosures and Evaluation

- Presenters and Planners: Howard Haft, MD, has reported no relevant financial relationships to disclose.
- MedChi CME Reviewers: The reviewers from the MedChi Committee On Scientific Activities (COSA) for this activity have reported no relevant financial relationships to disclose.
- *Attendees can receive CME credit by completing this evaluation after each webinar. MedChi will then be in contact with the certificate*

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Announcements

- Learn from:
  - Our FAQs page (last updated November 2020)
  - MDH FAQs
- Wednesday Covid-19 Updates
  - Wednesday, 3/10/21 (5-6:30pm)
  - Wednesday, 3/17/21 (5-6:30pm)
- Guest Speaker
  - Today –3/3 - Ann Parker, MD, PhD, Post-Acute Covid Care
  - 3/10 - Gael O'Sullivan, Behavioral science messaging for Covid vaccines
  - 3/17 - Stephanie Slowly, MSW, LCSW-C, The Role of Racial Trauma and Microaggressions in Health Disparities

Post-Acute Sequelae of SARS-CoV-2:
Johns Hopkins Post-Acute COVID-19 Team (PACT) Experience

Ann M. Parker, MD, PhD

Assistant Professor, Pulmonary & Critical Care Medicine

Co-Founder, Co-Direct JH PACT

Ann.Parker@jhmi.edu

Twitter: @AnnEkedahl

Disclosures

- **Funding:**
  - **K23HL138206 (NIH/NHLBI) (Final year)**

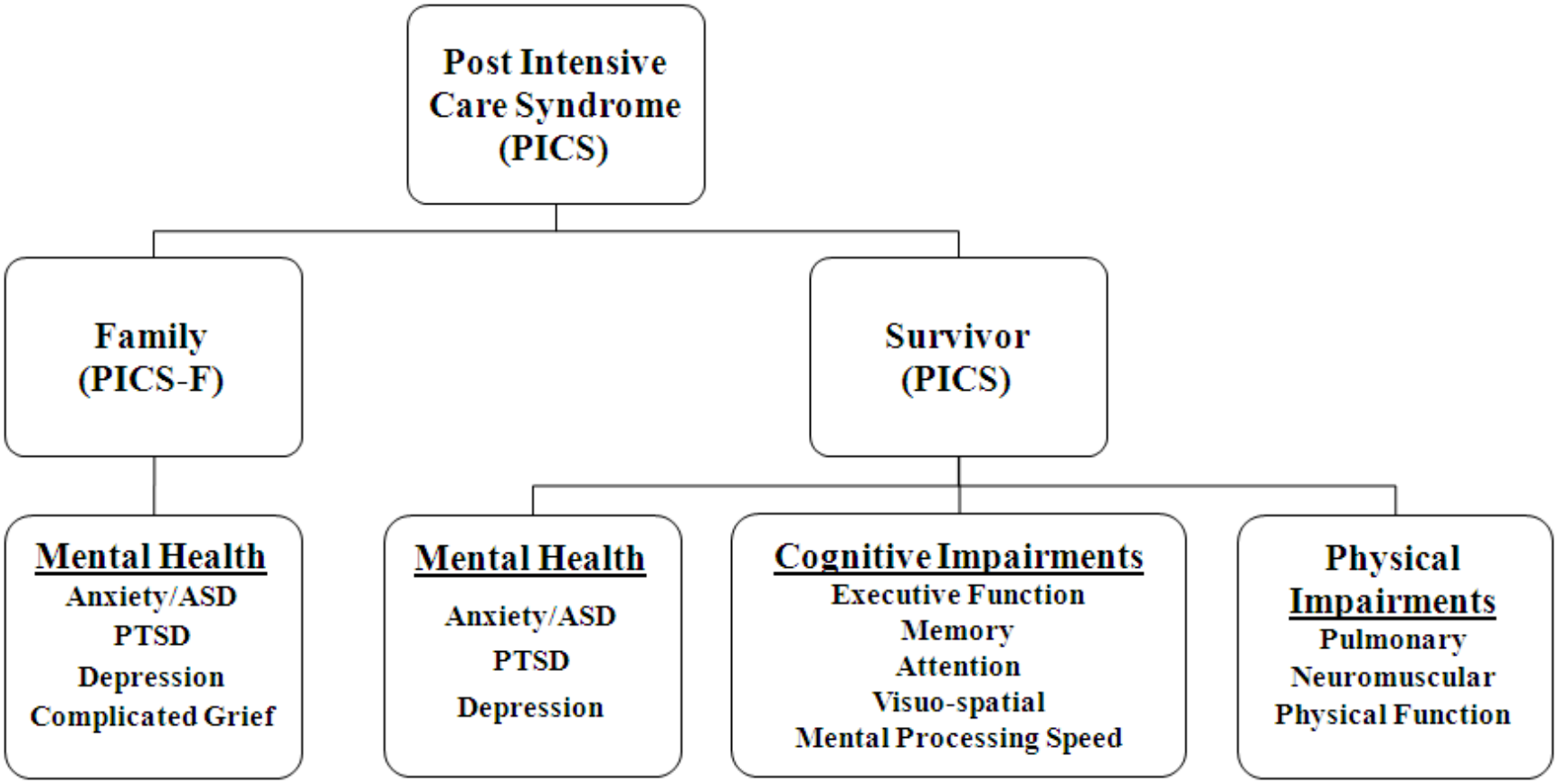
Objectives

- **Post-Intensive Care Syndrome**
  - Impact of COVID-19 Pandemic
- **Post-Acute Sequelae of SARS-CoV-2 (PASC)**
- **Johns Hopkins PACT Program**

Improving long-term outcomes after discharge from intensive care unit: Report from a stakeholders' conference*

Dale M. Needham, MD, PhD; Judy Davidson, DNP, RN; Henry Cohen, PharmD; Ramona O. Hopkins, PhD;

(Crit Care Med 2012; 40:502–509)

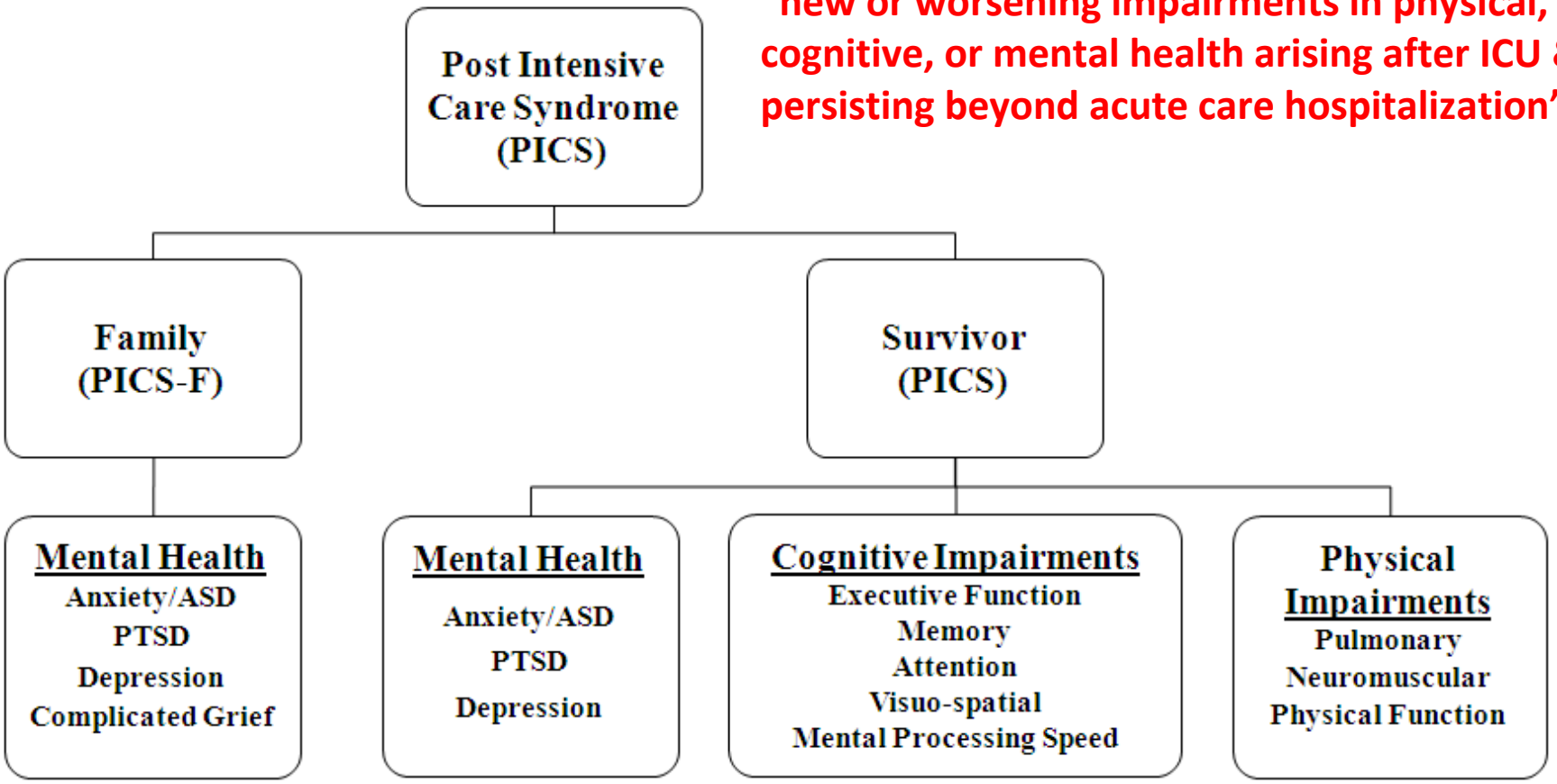


Improving long-term outcomes after discharge from intensive care unit: Report from a stakeholders' conference*

Dale M. Needham, MD, PhD; Judy Davidson, DNP, RN; Henry Cohen, PharmD; Ramona O. Hopkins, PhD;

(Crit Care Med 2012; 40:502–509)

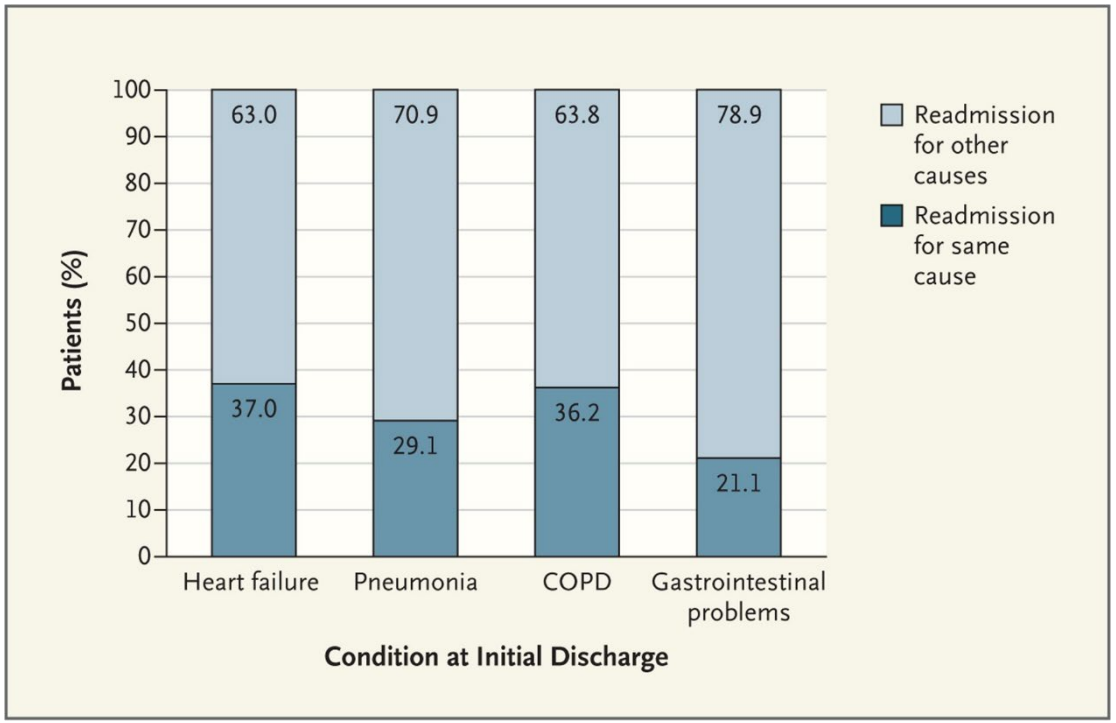
"new or worsening impairments in physical, cognitive, or mental health arising after ICU & persisting beyond acute care hospitalization"



Post-Hospital Syndrome

- Acquired, transient period of vulnerability
- Impairments in physical function, cognition and mental health

*1/5 readmitted within 30 days



Krumholtz. NEJM. 2013.

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 FEBRUARY 20, 2003 VOL. 348 NO. 8

One-Year Outcomes in Survivors of the Acute Respiratory Distress Syndrome

Margaret S. Herridge, M.D., M.P.H., Angela M. Cheung, M.D., Ph.D., Catherine M. Tansey, M.Sc., Andrea Matte-Martyn, B.Sc., Natalia Diaz-Granados, B.Sc., Fatma Al-Saidi, M.D., Andrew B. Cooper, M.D., Cameron B. Guest, M.D., C. David Mazer, M.D., Sangeeta Mehta, M.D., Thomas E. Stewart, M.D., Aiala Barr, Ph.D., Deborah Cook, M.D., and Arthur S. Slutsky, M.D., for the Canadian Critical Care Trials Group

Global Assessment of Outcomes

JOHNS HOPKINS MEDICINE

Lost 18% of body weight in ICU

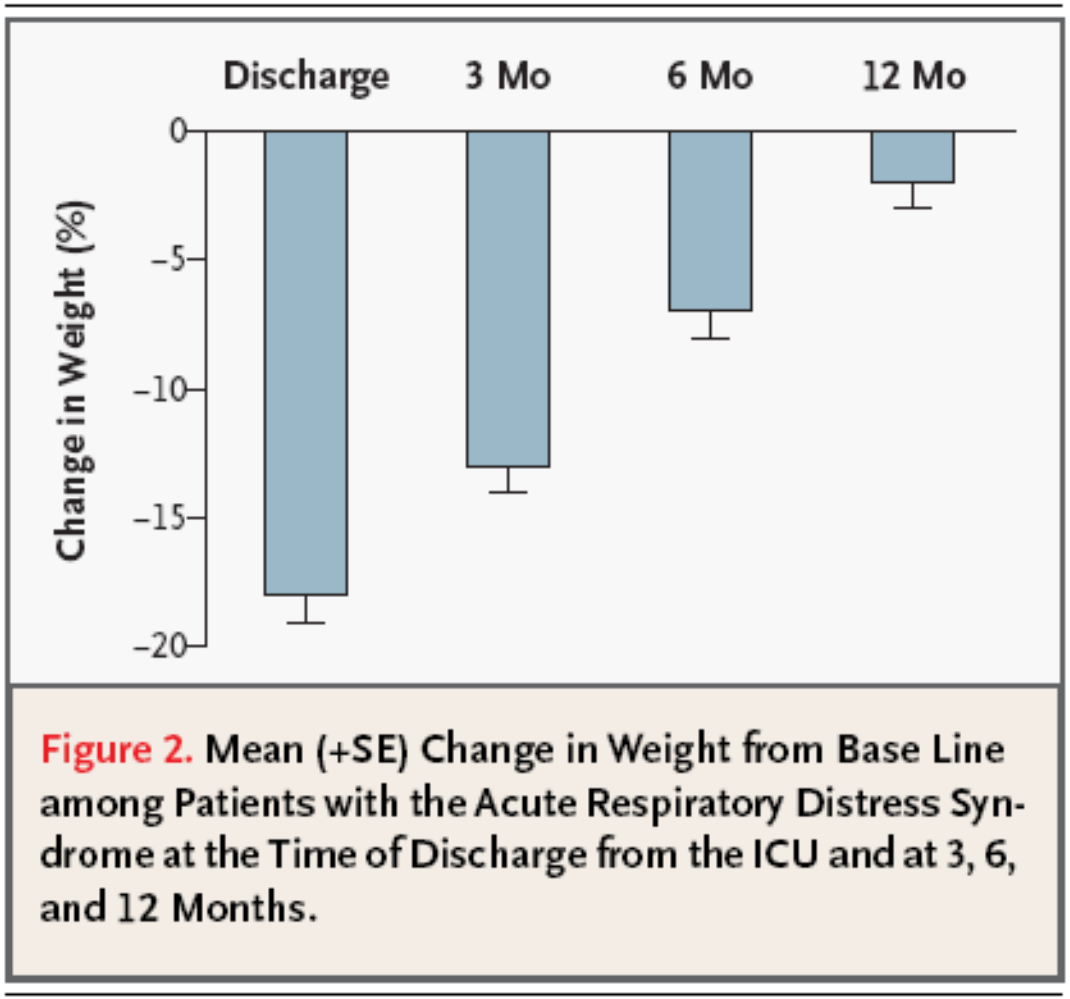


Figure 2. Mean (+SE) Change in Weight from Base Line among Patients with the Acute Respiratory Distress Syndrome at the Time of Discharge from the ICU and at 3, 6, and 12 Months.

Loss of lean muscle

Replaced with fat

Functional Outcomes

JOHNS HOPKINS MEDICINE

Table 3. Ability to Exercise and Return to Work and Health-Related Quality of Life among Patients with the Acute Respiratory Distress Syndrome during the First 12 Months after Discharge from the ICU.

Outcome	3 Months	6 Months	12 Months
Distance walked in 6 min			
No. evaluated	80*	78†	81‡
Median — m	281	396	422
Interquartile range — m	55–454	244–500	277–510
Percentage of predicted value§	49	64	66
Returned to work — no./total no. (%)¶	13/83 (16)	26/82 (32)	40/82 (49)‖
Returned to original work — no./total no. (%)	10/13 (77)	23/26 (88)	31/40 (78)

6MWD improved over 1 year, but still abnormal due to:

- **muscle wasting & weakness, foot drop, joint immobility**

Pulmonary Function

JOHNS HOPKINS MEDICINE

Table 2. Recovery of Pulmonary Function among Patients with the Acute Respiratory Distress Syndrome during the First 12 Months after Discharge from the ICU.

Variable	3 Mo (N=71)*	6 Mo (N=77)†	12 Mo (N=80)‡
	median (interquartile range)		
Forced vital capacity (% of predicted)	72 (57–86)	80 (68–94)	85 (71–98)
Forced expiratory volume in one second (% of predicted)	75 (58–92)	85 (69–98)	86 (74–100)
Total lung capacity (% of predicted)§	92 (77–97)	92 (83–101)	95 (81–103)
Residual volume (% of predicted)§	107 (87–121)	97 (82–117)	105 (90–116)
Carbon monoxide diffusion capacity (% of predicted)§¶	63 (54–77)	70 (58–82)	72 (61–86)

Post-ICU Depression

- Pooled prevalence (using survey) from studies in meta-analysis:
  - General ICU (38 studies): **30%** (range: 4%-64%)
  - ICAP study (ARDS pt): 2-year cumulative incidence, 40%
  - **No** improvement over 1st year
- Risk factors:
  - Pre-existing psychiatric comorbidity before ICU
  - Psychiatric symptoms at ICU or hospital d/c

Bienvenu *AJRCCM* 2011; Davydow *ICM* 2009; 796-809; Davydow *Psychosom Med* 2008; 512-519; Desai *CCM* 2011; 372; Hopkins *Gen Hosp Pysch* 2010; 147-155; Rabiee CCM 2016

Anxiety symptoms in survivors of critical illness: a systematic review and meta-analysis ☆

General Hospital Psychiatry 43 (2016) 23–29

Sina Nikayin, M.D. [a,b], Anahita Rabiee, M.D. [a,b], Mohamed D. Hashem, M.D. [a,b], Minxuan Huang, Sc.M. [a,b], O. Joseph Bienvenu, M.D., Ph.D. [a,c], Alison E. Turnbull, D.V.M., M.P.H., Ph.D. [a,b,d], Dale M. Needham, F.C.P.A., M.D., Ph.D. [a,b,e,*]

- **Pooled prevalence (HADS-A ≥8)**
  - 32% at 2-3 months
  - 40% at 6 months
  - 34% at > 12 months

No change over time

- **Risk factors/Associations:**
  - Psychiatric symptoms in ICU/hospital
  - Memories of delusional experiences
  - Post-ICU depression and PTSD symptoms

*Not associated: severity of illness, ICU & hospital LOS, admission diagnosis

PTSD

- **Pooled incidence from studies in meta-analysis:**
  - **ICU: ~25%** (range 17-44%) **over 1 yr** (IES meta-analysis, 6 studies)
    32% & 10% by clinical interview (2 studies)
- **Symptoms up to 8 yrs after ARDS**
- **ICU risk factors:**
  - **sedation (esp. benzodiazepines)**
  - **traumatic/delusional memories**

Parker et al Meta-analysis CCM 2015
Boyle *Aust Crit Care* 2004; 104-113; Samuelson *Acta Anaesthesiol Scand* 2007; 671-678;
Rattray *Anaesthesia* 2005; 1085-1092; Hopkins *AJRCCM* 1999; 50-56; Davydow *Gen Hosp Psychiatry* 2008; 421-434;
Kapfhammer *Am J Psychiatry* 2004; 45-52, Desai *CCM* 2011; 372

The NEW ENGLAND JOURNAL of MEDICINE

JOHNS HOPKINS MEDICINE

Long-Term Cognitive Impairment after Critical Illness

N Engl J Med 2013;369:1306-16.

P.P. Pandharipande, T.D. Girard, J.C. Jackson, A. Morandi, J.L. Thompson, B.T. Pun, N.E. Brummel, C.G. Hughes, E.E. Vasilevskis, A.K. Shintani, K.G. Moons, S.K. Geevarghese, A. Canonico, R.O. Hopkins, G.R. Bernard, R.S. Dittus, and E.W. Ely, for the BRAIN-ICU Study Investigators*

- **821 ICU pts with respiratory failure or shock**
- **74% delirious during hospital stay**
- **~1/3 & 1/4 had cognitive scores at 1 year follow-up c/w moderate TBI & mild Alzheimers, respectively**
  - **Affected both older and younger pts**
- **Delirium duration associated with impairment**

Fatigue Symptoms During the First Year Following ARDS

Karin J. Neufeld, MD, MPH; Jeannie-Marie S. Leoutsakos, PhD, MHS; Haijuan Yan, PhD; Shihong Lin, MS; Jeffrey S. Zabinski, MD; Victor D. Dinglas, MPH; Megan M. Hosey, PhD; Ann M. Parker, MD; Ramona O. Hopkins, PhD; and Dale M. Needham, MD, PhD

- **N=732 ARDS survivors from 38 US hospitals**
- **FACIT-F to assess fatigue symptoms (validated for ICU)**

Clinically important fatigue in 70% (N=501) and 66% (N=436) at 6 and 12 months

28% with worsening symptoms at 12 months

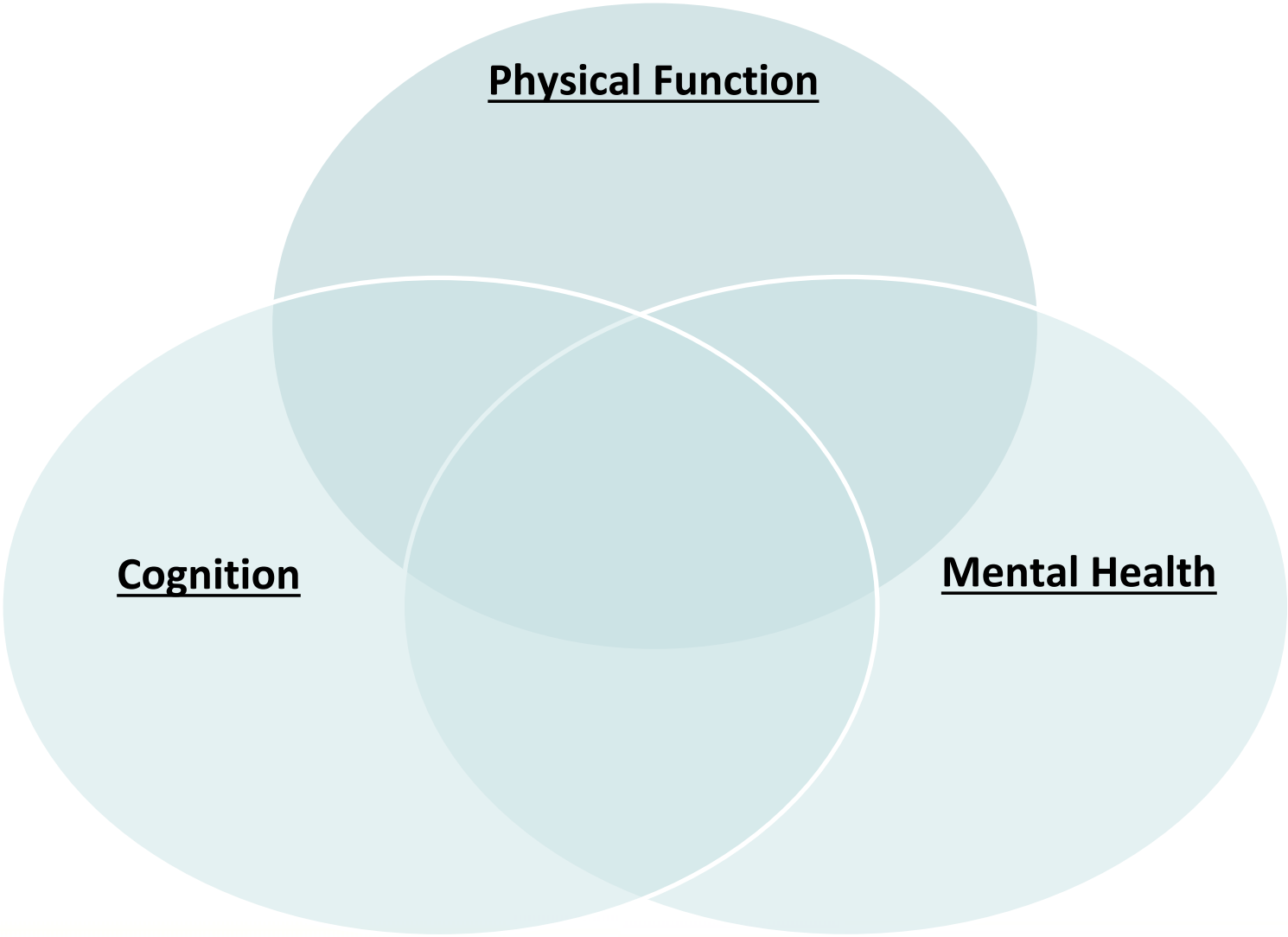
- **Male and employed prior to ARDS associated with less fatigue**
- **Worse physical function and greater anxiety and depression symptoms associated with more fatigue at 6 and 12 months**
- **Severity of illness, ARDS severity, ICU LOS NOT associated with fatigue**

CHEST 2020; 158(3):999-1007

Objectives

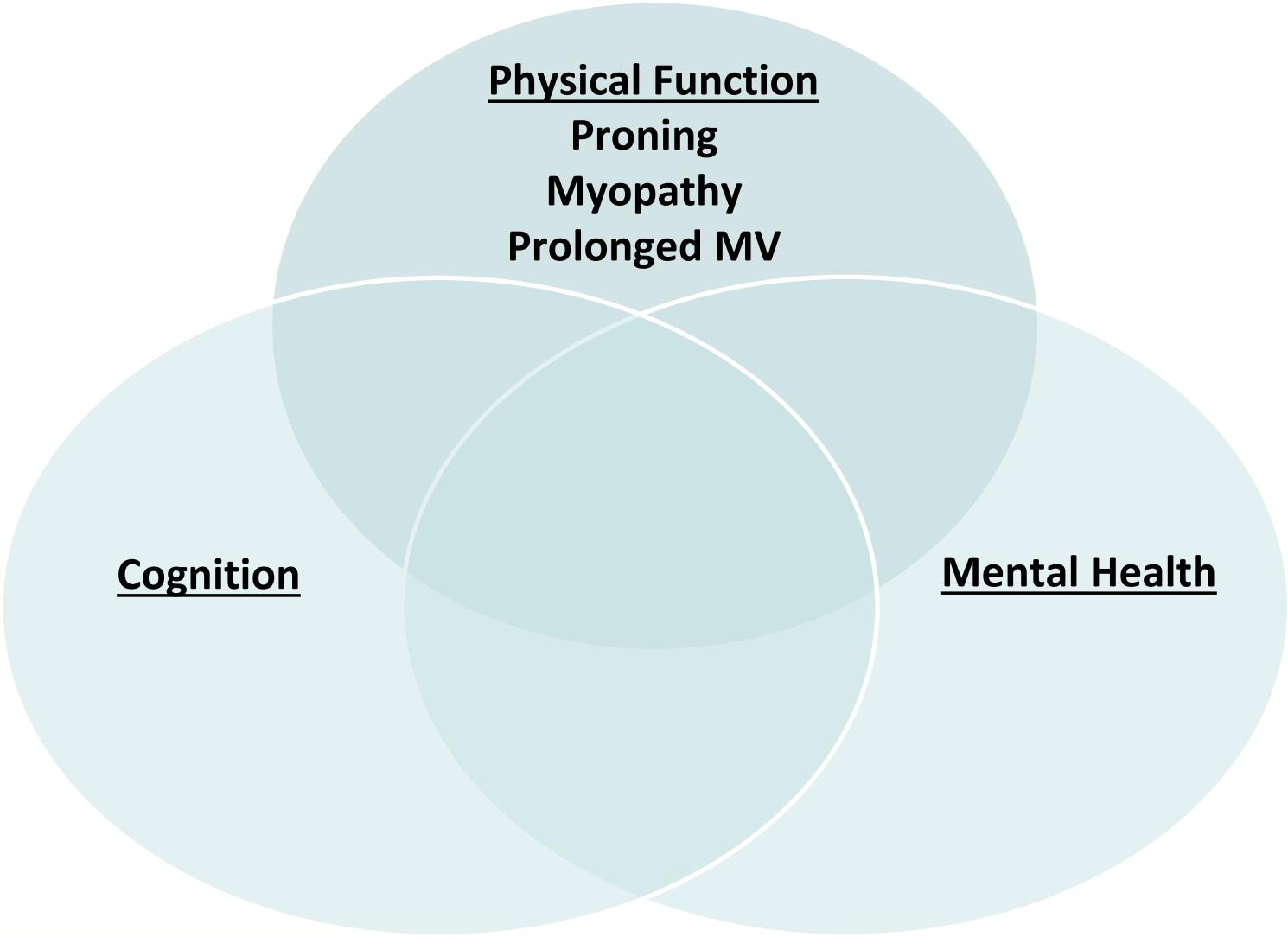
- Post-Intensive Care Syndrome
  - Impact of COVID-19 Pandemic
- Post-Acute Sequelae of SARS-CoV-2 (PASC)
- Johns Hopkins PACT Program

COVID-19 Survivorship: Further Complicated by Impaired…..



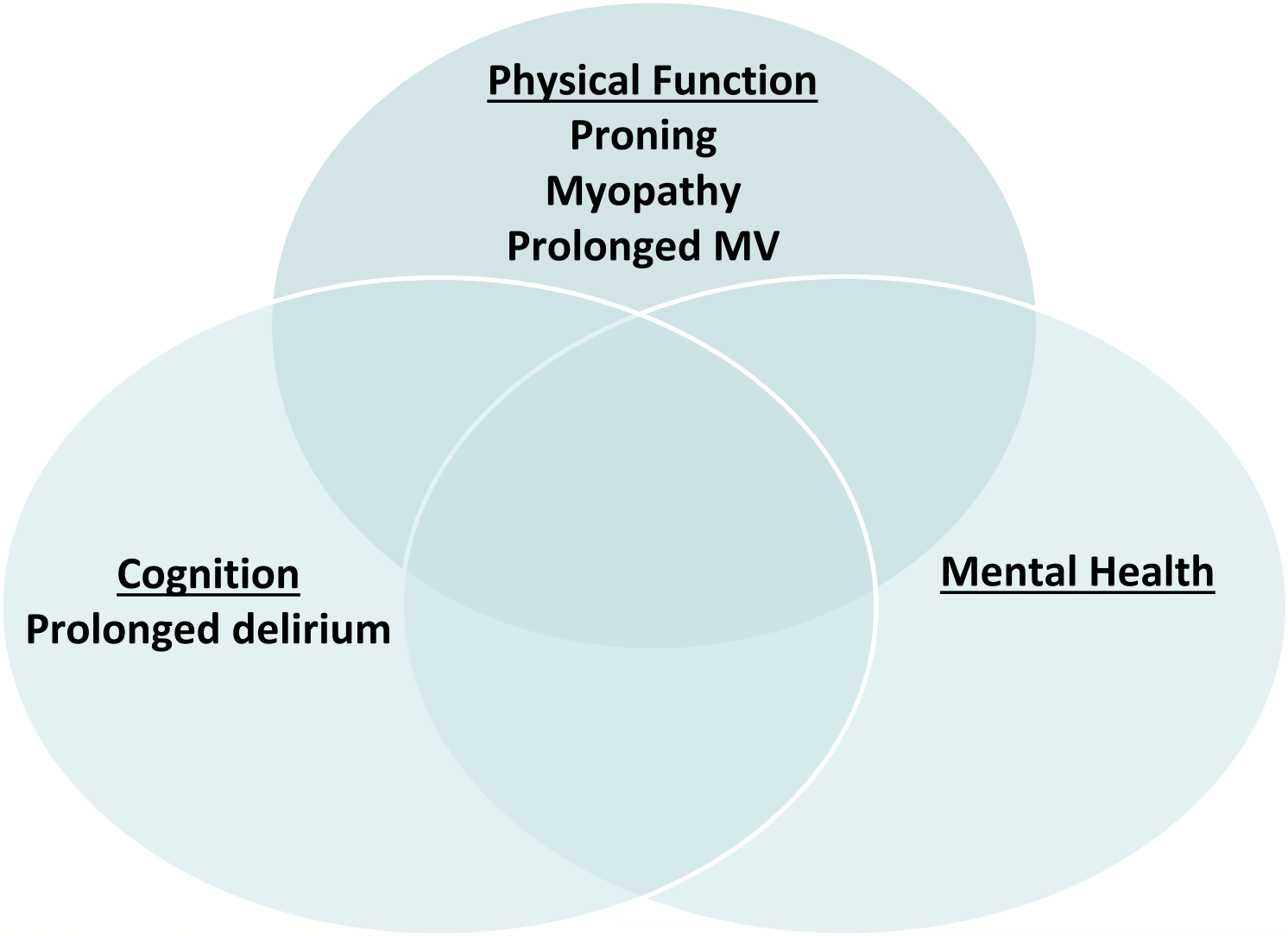
Hosey&Needham.Nature Review.2020

COVID-19 Survivorship: Further Complicated by Impaired…..



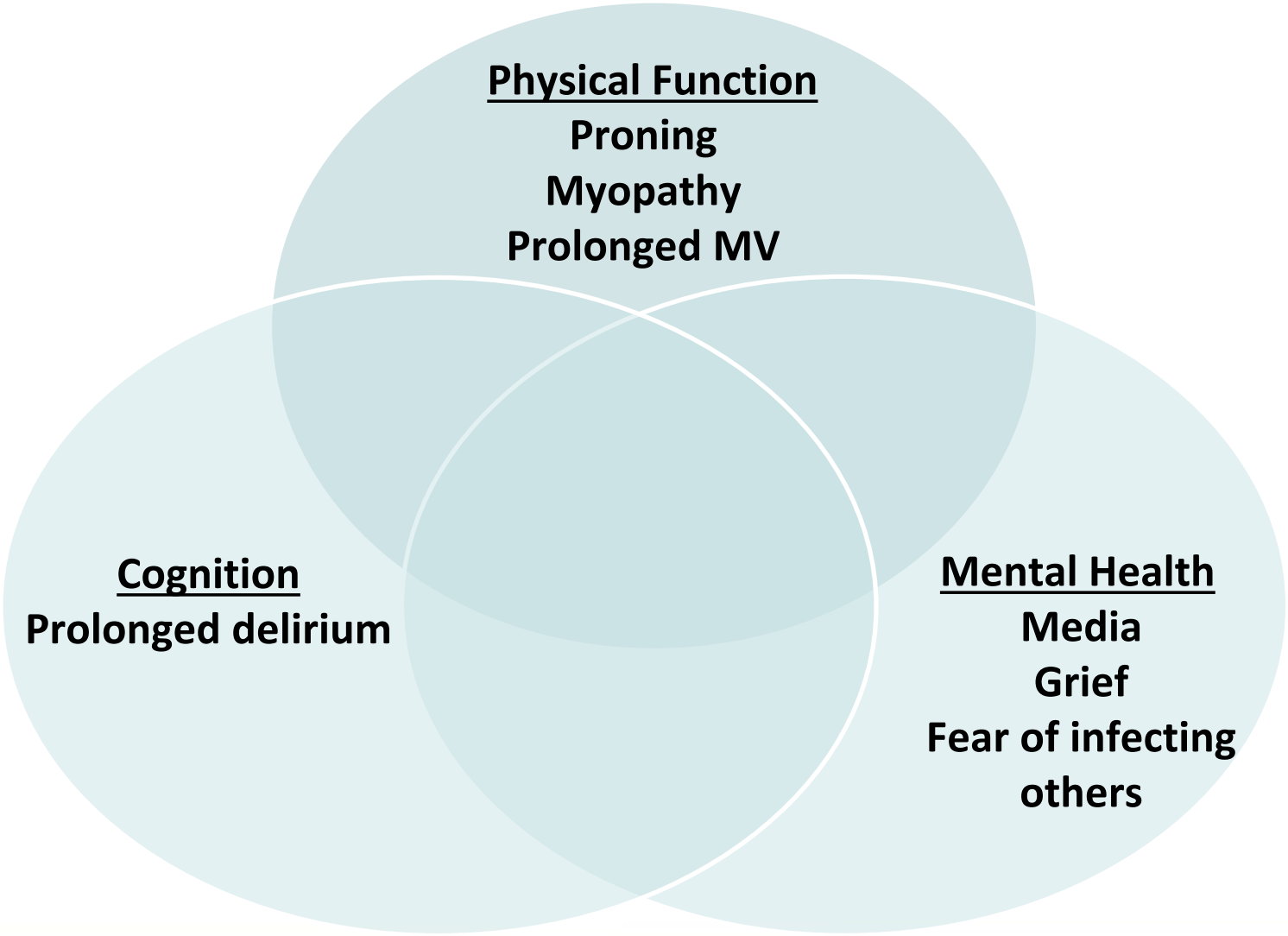
Hosey&Needham.Nature Review.2020

COVID-19 Survivorship: Further Complicated by Impaired…..



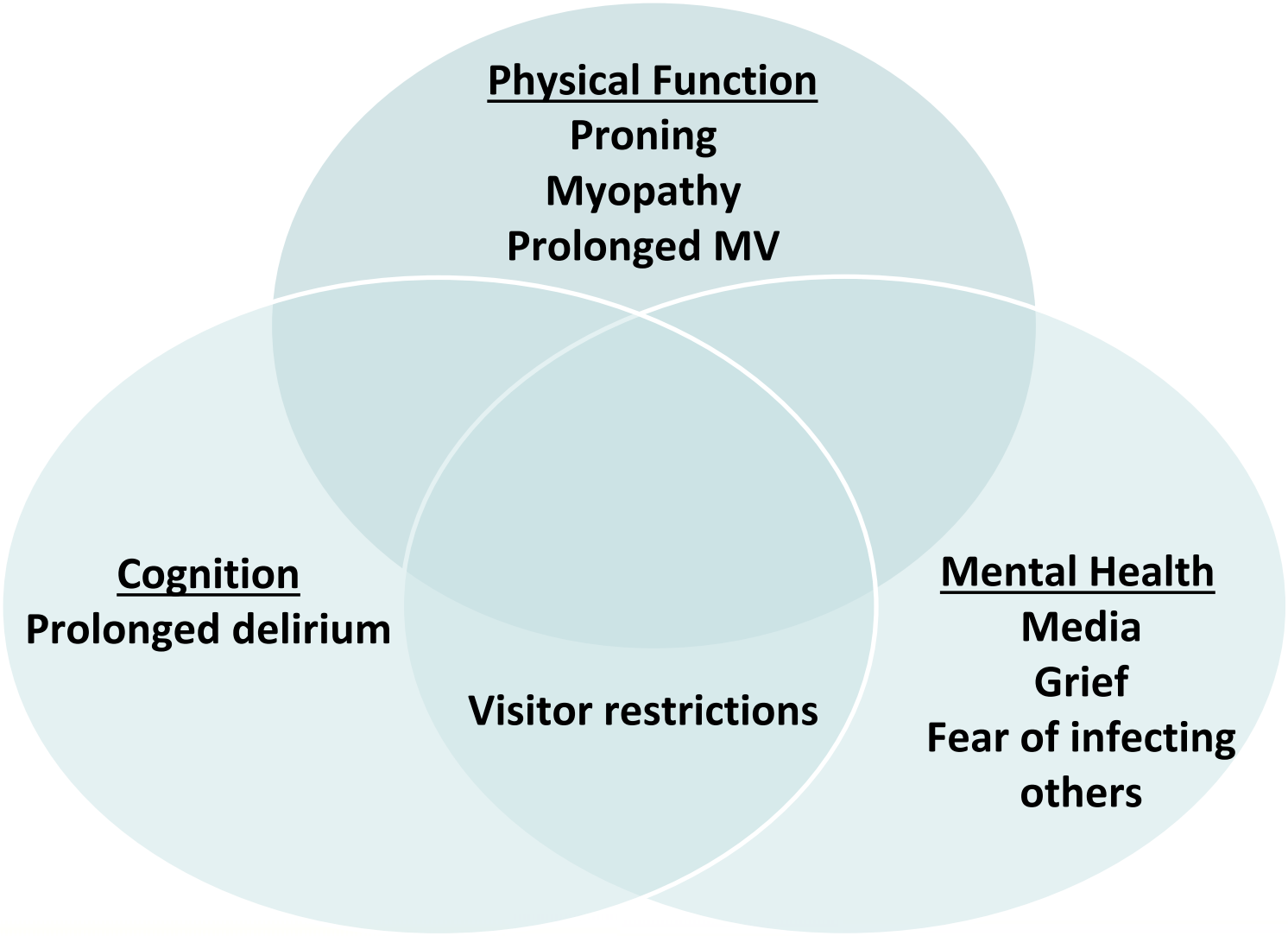
Hosey&Needham.Nature Review.2020

COVID-19 Survivorship: Further Complicated by Impaired…..



Hosey&Needham.Nature Review.2020

COVID-19 Survivorship: Further Complicated by Impaired…..



Hosey&Needham.Nature Review.2020

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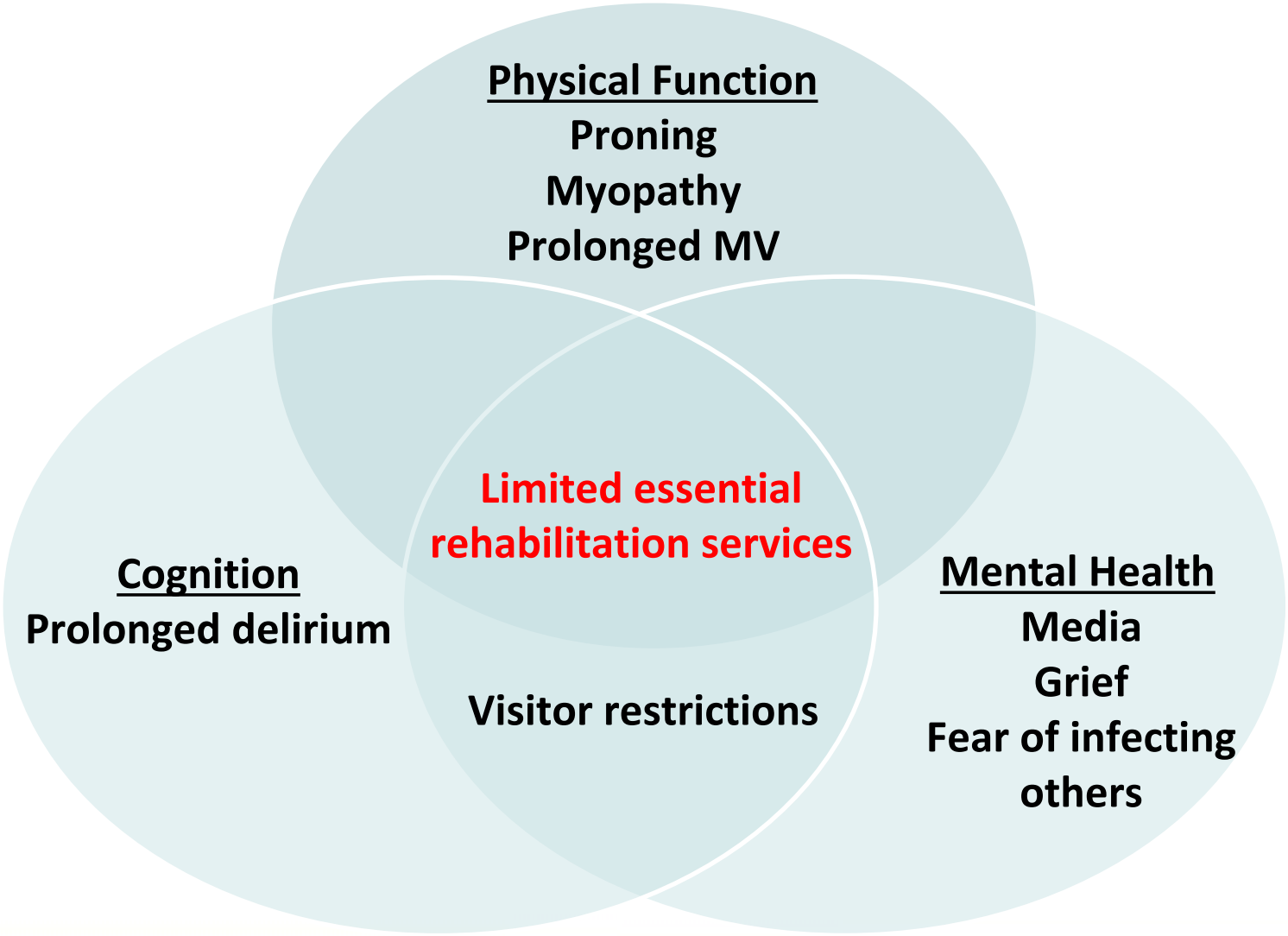

Hosey&Needham.Nature Review.2020

Objectives

- Post-Intensive Care Syndrome
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Epidemiology and Infection 149, e32, 1–9.

Surviving COVID-19 in Bergamo province: a post-acute outpatient re-evaluation

S. Venturelli *et al.*

Epidemiology and Infection

- N=767; N=66 (9%) ICU (N=62 MV)
  - Median 105d (IQR 84-127) post-Sx onset
- 51% ≥1 symptom (fatigue, dyspnea)
- Pulmonary: Dyspnea: N=228 (31%) (N=52 (7%) > mild)
  PFTs: 19% w/ DLCO <80% (<1% O2 sats< 93%)
- Mental Health: 31% PTSD; 11% anxiety; 5% depression
- Physical Function: 16% no longer independent
- Fatigue: N=334 (44%) (145 (19%) ≥ moderate)
- Cognition: MoCA abnl in 2/304

- 2 asymptomatic sub-segmental PEs
- <10% with palpitations, GI symptoms, HA, cough, loss of taste/smell

6-month consequences of COVID-19 in patients discharged from hospital: a cohort study

Chaolin Huang, MD * • Lixue Huang, MD * • Yeming Wang, MD * • Xia Li, MD * • Lili Ren, PhD * • Xiaoying Gu, PhD *

THE LANCET

- N=1733 – 6 month f/u
  - 10 patients required IMV/ECMO
- 1265 (76%) ≥1 symptom
  - most common fatigue/muscle weakness (N=1038 (63%))
- Pulmonary: Dyspnea - mMRC ≥1 419/1615 (26%)
  PFTs - DLCO < 80% (56% HFNC/NIV/MV)
- Mental Health: Anxiety/depression (EQ5D) 367/1617 (23%)
  - 5% > slight
- Physical function: 6MWT 88% (76-101%)
- N=390 with ultrasound no LE DVT

Greater proportion in the HFNC/NIV/MV group w/ dyspnea, decreased mobility (EQ5D), anxiety/depression

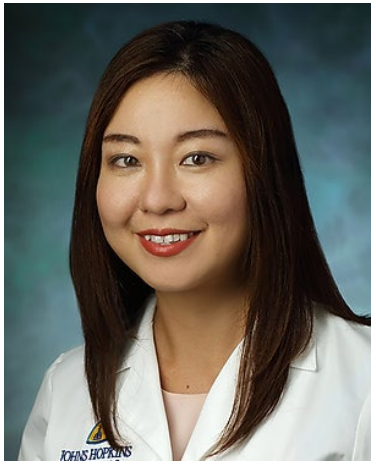
Objectives

- Post-Intensive Care Syndrome
  - Impact of COVID-19 Pandemic
- Post-Acute Sequelae of SARS-CoV-2 (PASC)
- Johns Hopkins PACT Program

JH PACT Program

- Est April 7, 2020
- Multi-disciplinary (Telemed/In-person hybrid)
  - PCCM
  - PM&R
  - JH Homecare
- JH PACT-ICU: ICU LOS > 48hrs & HFNC/NIV/MV
- JH PACT-Base: Pulmonary and/or Rehab needs at d/c
- Weekly multi-D meetings

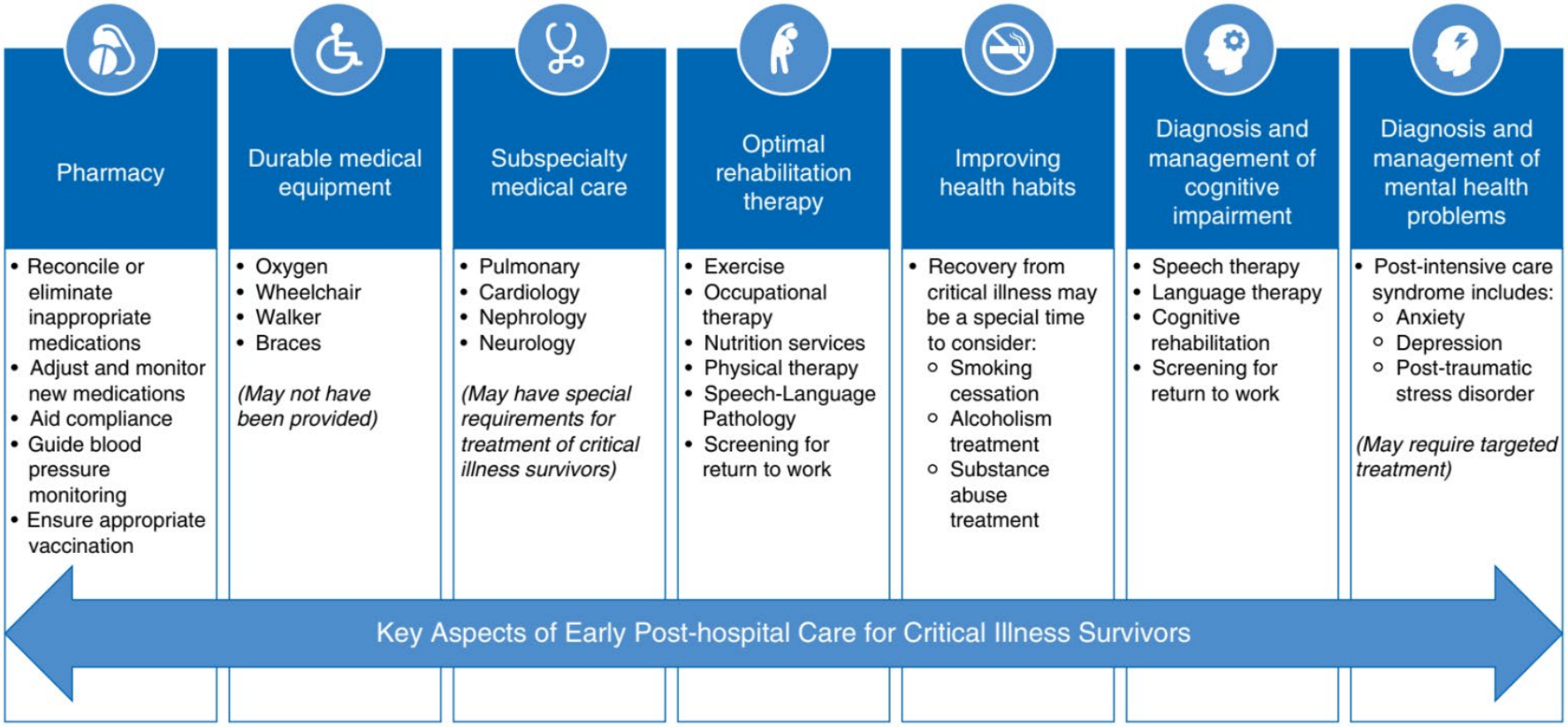





Approaches to Addressing Post–Intensive Care Syndrome among Intensive Care Unit Survivors

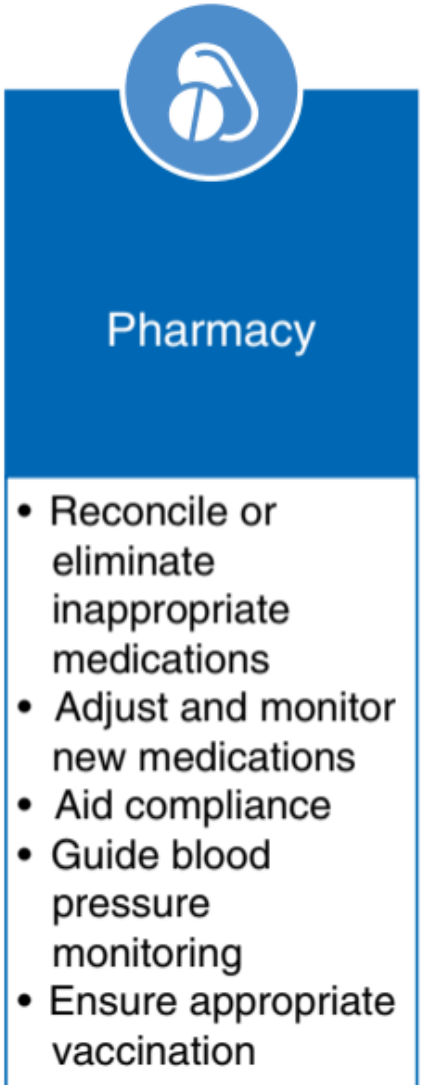
A Narrative Review

Samuel M. Brown[1,2*], Somnath Bose[3], Valerie Banner-Goodspeed[3], Sarah J. Beesley[1,2], Victor D. Dinglas[4], Ramona O. Hopkins[1,5], James C. Jackson[6], Mustafa Mir-Kasimov[7], Dale M. Needham[4], and Carla M. Sevin[6]; for the Addressing Post Intensive Care Syndrome 01 (APICS-01) study team



Ann Am Thorac Soc Vol 16, No 8, pp 947–956, Aug 2019

JH PACT Program



Pharmacy team

- **Before visit:**
  - **Chart/med review**
  - **Phone assessment with patient**
  - **Communication via EMR w/ PACT physician**

- **After visit:**
  - **Phone call with patient as needed**

JH PACT Program

Durable medical equipment

- Oxygen
- Wheelchair
- Walker
- Braces

(May not have been provided)

Johns Hopkins Homecare

(Denise Taff, PT; Denise Wagner, PT)

- Remote patient monitoring
- Medical equipment
- PT, OT (more to come….)

JH PACT Program

Subspecialty medical care

- Pulmonary
- Cardiology
- Nephrology
- Neurology

(May have special requirements for treatment of critical illness survivors)

- **Pulmonary Visit**
  - PFTs, Imaging as needed
  - Weekly Radiology rounds (Dr. Stanley Siegelman and Dr. Tony Lin)
  - Weekly ILD rounds (Dr. Karthik Suresh)
- **Targeted referrals to subspecialty care:**
  - Cardiology (Dr. Nisha Gilotra)
  - Infectious Disease
  - Nephrology
  - Dermatology
  - Hematology…….

JH PACT Program

Physical Medicine & Rehabilitation

- **Physiatry Visit**
  - Activity Measure for Post Acute Care (AM-PAC)
  - Sit to stand, 6MWT
  - Postural Orthostatic Tachycardia Syndrome (POTS) Clinic (Dr. Tae Chung)
- **PT, OT, SLP**
  - PM&R and Johns Hopkins Homecare

JH PACT Program

Improving health habits

- Recovery from critical illness may be a special time to consider:
  - Smoking cessation
  - Alcoholism treatment
  - Substance abuse treatment

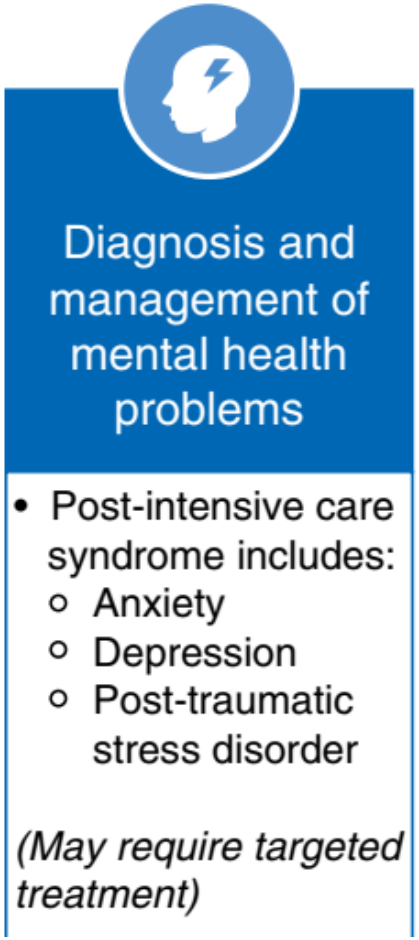
- **Pulmonary visit**
  - **Detailed history**
  - **Referral to smoking cessation clinic (Dr. Panagis Galiatsatos at JHU PCCM)**
- **Coordination with primary care**

  (Dr. Kathleen Page; Dr. Zack Berger)
- **Community Health Worker**
  - **PCP**
  - **Insurance**
  - **Job resources**

JH PACT Program

- **Cognitive screen**
  - **Detailed phone cognitive assessment**
    (Dr. Tracy Vannorsdall, Dr. Esther Oh, Dr. Kostas Lyketsos)
- **Management**
  - **Neuropsychology**
  - **Rehabilitation Psychology**
  - **SLP**
  - **OT**

JH PACT Program



- **Mental health screen**
  - **PHQ9, GAD7 (HADS*)**
  - **Impact of Event Scale 6 item version**
  - **NIH-funded ICU Core Outcome Measurement Set** https://www.improvelto.com/instruments/
- **Management**
  - **Psychiatry (Dr. Elizabeth Ryznar)**
  - **Rehabilitation Psychology (Dr. Anna Agranovich)**

Hosey et al. Crit Care. 2019 Aug 7;23(1):276

JH PACT – Standardized Assessments

JOHNS HOPKINS MEDICINE

Domain	Instrument
Health-related Quality of Life	EQ5D PROMIS Global 10
Mental Health Depression Anxiety PTSD	 PHQ9 GAD7 IES-6
Cognition	Telephone cognitive battery MoCA-Blind
Pain	EQ5D pain question
Physical Function	AM-PAC Surgical Short Form
Respiratory Symptoms	BCSS, mMRC
Employment	Qualitative
Readmissions	Qualitative

COMS acute respiratory failure survivors: Needham et al. AJRCCM. 2017. 196(9); Turnbull et al. CCM. 2017. 45(6).
Spruit et al. Interim Guidance on Rehabilitation. ERS/ATS Task Force. ERS. 2020. in press.
Mikkelson et al. SCCM Int'l Consensus LT Impairments Critical Illness. CCM. 2020; 48(11):1670-79
Semler et al. NHLBI Working Group. 2020; 202:511-523

JH PACT Demographics

JOHNS HOPKINS MEDICINE

	All PACT N=276
Age (mean (sd) yrs)	54 (15)
Male (%)	139 (53%)
Race (%) White or Caucasian Black or African American Asian	 84 (30%) 95 (34%) 14 (5%)
Ethnicity Hispanic or Latino	70 (25%)
Interpreter services	58 (21%)
Uninsured	35 (13%)

Summary

JOHNS HOPKINS MEDICINE

- Survivors of acute illness, especially ICU, are at risk for impairments in mental, cognitive and physical health

- Recent NIH/NIAID Workshop on PASC:
  - Current gaps in knowledge: incidence, prevalence, natural history, risk factors
  - Research alongside clinical care

NICE National Institute for Health and Care Excellence

"local, integrated referral pathways between primary and community care, multidisciplinary rehabilitation services and specialist services……"

Thank you!

- **PCCM**
  - Emily Brigham, MD, MHS
  - Michelle Eakin, PhD
  - Ashraf Fawzy, MD, MHS
  - Panagis Galiatsatos, MD
  - Nadia Hansel, MD, MPH
  - Sade Harvey
  - Christian Merlo, MD, MPH
  - Dale M. Needham, MD, PhD
  - Jacqueline O'Toole, DO
  - Sarath Raju, MD, MPH
  - Elizabeth Ruvalcaba
  - Sandra Zaeh, MD
  - Mazin Ali, MBBS
  - Teja Kalva, MBBS
  - Maddie Smith
  - Ed Chen, MD
  - Panagis Galiatsatos, MD
  - Karthik Suresh, MD
  - Andrew Byrd
  - Samuel Boadu
- Norma Wright, RN
- **Johns Hopkins Office of Telemedicine**
  - Brian Hasselfeld, MD
- **PM&R**
  - Anna, Agranovich, PhD
  - Alba Azola, MD
  - Tae Chung, MD
  - Jessica Engle, DO
  - Michael Friedman, PT, MBA
  - Laurie Fitz, PT
  - Megan Hosey, PhD
  - Soo Kim, MD
  - Pei-Ting Lien, DPT
  - Sam Mayer, MD
  - Daniel Sova, MD
  - Jennifer Zanni, PT
  - Nicole Schechter, PhD
- Steve Sisson, MD
- David Holden, MD
- Steve Kariya, MD
- Carmen Salvaterra, MD
- Arun Venkatesan, MD
- **Radiology**
  - Tony Lin, MD
  - Stanley Siegelman, MD
- **Psychiatry**
  - Elizabeth Ryznar, MD
  - Adam Kaplin, MD
  - Tracy Vannorsdall, PhD
  - Ally Gorgone
- **Geriatrics**
  - Esther Oh, MD, PhD
  - Sasha Pletnikova
  - Kostas Lyketsos, MD, MHS
- **Johns Hopkins Homecare**
  - Denise Taff, PT
  - Denise Wagner, PT
  - Melissa Gantz-Garnish, RN
  - Joyce Maygers, MSN, RN
  - Mary Myers, MS, RN
- **Pharmacy**
  - Jenna Blunt, PharmD
  - Caitlin Dowd-Green, PharmD
  - Traci Gruczi, PharmD
  - Todd Nesbit, PharmD, MBA
  - Annette Rowden, PharmD
  - Meghan Swarthout, PharmD

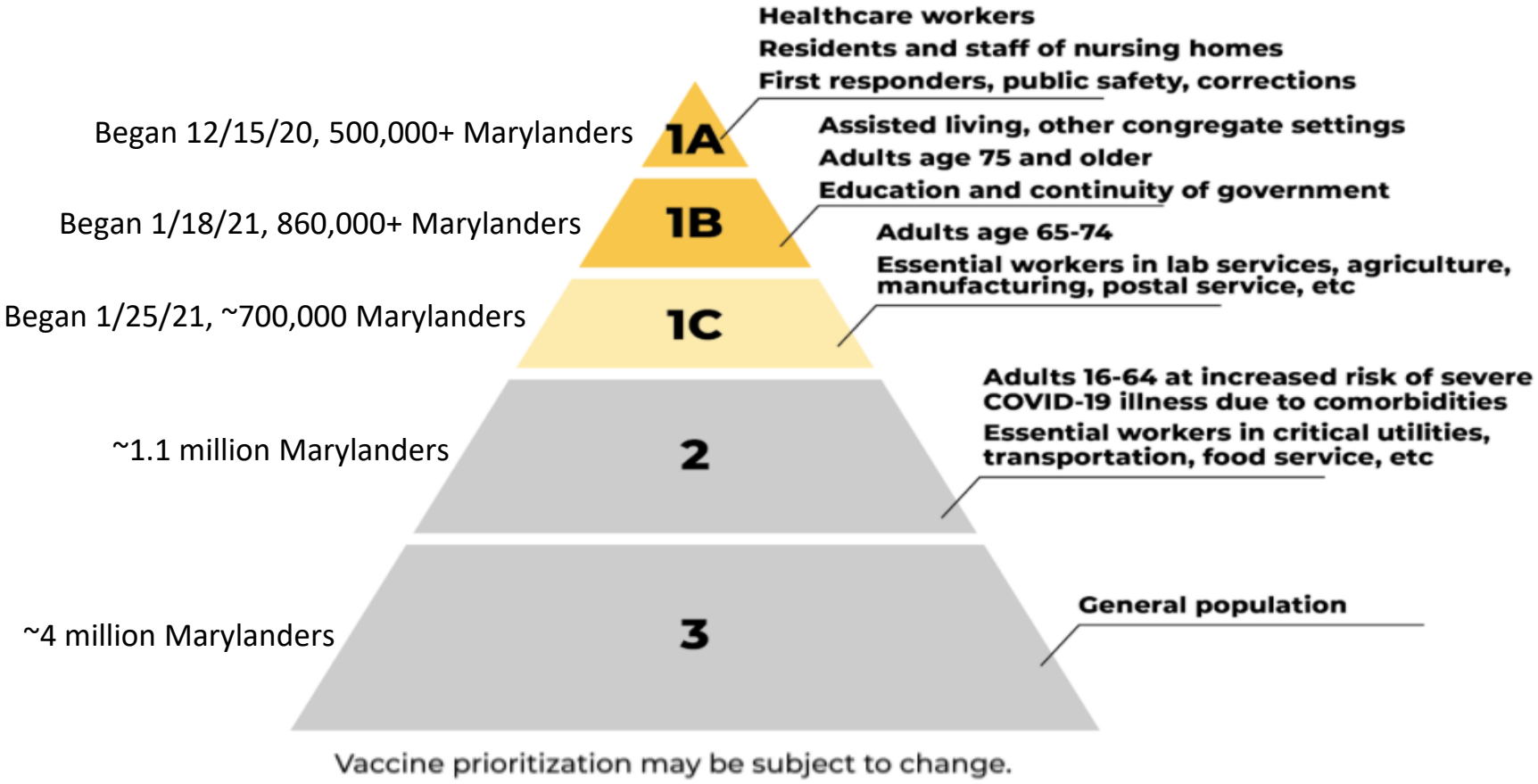
https://sites.google.com/umich.edu/cairo/home

Appendix

Resources and Links

Maryland
DEPARTMENT OF HEALTH

Priority Groups



Maryland
DEPARTMENT OF HEALTH

Source: Maryland Department of Health, Office of Governor Larry Hogan, WBALTV, WBALTV

Current Vaccines

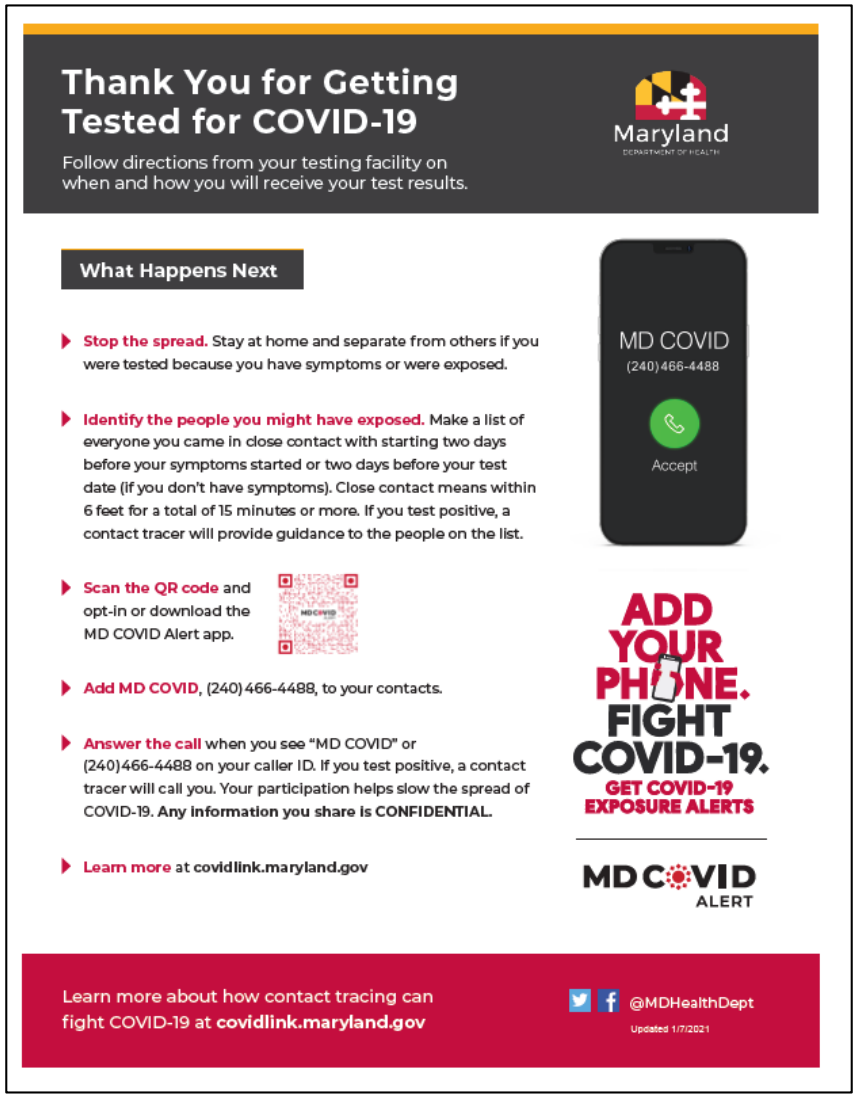
	BIONTECH Pfizer	moderna™ messenger therapeutics
Schedule	• Two dose regimen • 17-21 days apart (can extend)	• Two dose regimen • 28 days apart (can extend)
Indications	• 16 years and older • Pregnant and lactating can be considered • Caution with those with h/o anaphylaxis	• 18 years and older • Pregnant and lactating can be considered • Caution with those with h/o anaphylaxis
Administration and Distribution	• Ultracold storage, 5 days in refrigeration • 985 doses per box • 15 and 30 minute observation periods	• Up to 30 days in refrigerator • 100 doses per box • 15 and 30 minute observation periods

Source: CDC

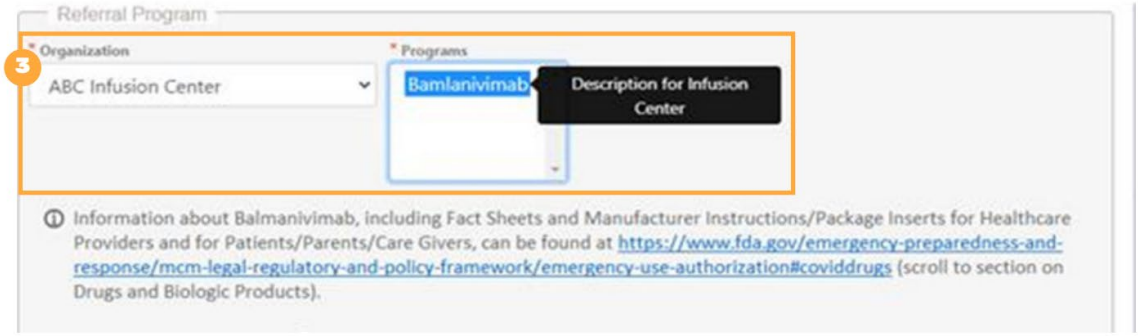
Contact Tracing

Methods

- Contact tracer calls
- MD Covid Alert – cell phone
- Provider alerting



CRISP eReferral Tool for Monoclonal Infusion Treatment



- Allows providers to refer patients to Monoclonal Antibody Infusion Site
  - Not used by Baltimore Convention Center Field Hospital and Hatzalah of Baltimore
  - All other sites use the tool
- Monoclonal Antibody eReferral Instructions

Maryland DEPARTMENT OF HEALTH

Maryland Covid-19 Vaccination Plan

- Maryland has developed a Covid-19 vaccination plan to vaccinate all Marylanders interested in receiving vaccine
- Plan was released on Tuesday, October 20, 2020
- This is a working plan and subject to change as new information is received and the Covid-19 pandemic continues to evolve
- Copy of the plan can be found here:

https://phpa.health.maryland.gov/Documents/10.19.2020_Maryland_Covid-19_Vaccination_Plan_CDCwm.pdf

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Multiple COVID-19 variants are circulating globally

B.1.1.7	B.1.351	P.1
• Variant name is a reference to its lineage • Appears to have originated in the UK with an unusually large number of mutations • Was first detected in 9/2020 • Spreads more quickly and easily than other variants • Some evidence it causes more severe illness or increased risk of death • Highly prevalent in London and southeast England • Doubling every 10 days in the United States • Vaccines appear to work well against it	• Variant name is a reference to its lineage Has emerged in South Africa, is independent of B.1.1.7 • Originally detected in 8/2020 • Shares some mutations with B.1.1.7 • Clinical trials of vaccines show they offer less protection against this variant than other variants • The FDA is preparing a plan to update vaccines if B.1.351 surges in the United States	• Variant name is a reference to its lineage • Emerged in Brazil • Was identified in four travelers from Brazil, who were tested during routine screening at Haneda airport outside Tokyo, Japan • Contains a set of additional mutations that may affect its ability to be recognized by antibodies • Is a close relative of B.1.351 • May be able to overcome the immunity developed after infection by other variants

Source: CDC, New York Times, Office of the Governor of Larry Hogan

New Variant Reporting to MDH

As part of these MDH surveillance efforts, MDH requests that clinicians report, via an online portal, COVID-19 cases among any of the following groups:

- **Individuals who first test positive for COVID-19 after receiving COVID-19 vaccination** (either one or two doses)
- **Severely immunocompromised individuals with prolonged COVID-19 infection**
- **Individuals suspected of reinfection** – specifically, symptomatic individuals who test PCR positive for SARS-CoV-2 more than 90 days after an initial infection from which they clinically recovered
- **Individuals with recent international travel** (travel in the 14 days prior to symptom onset)
- **Any other individuals for whom you have clinical suspicion of infection with a possible variant** (e.g., unusual clinical manifestation, etc.)

Clinician Letter Link

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Phased Approach

	Phase 1	Phase 2
Vaccine availability	Limited	Widespread
Approach	Targeted	Universal
Vaccine available to:	• Frontline healthcare workers • Other essential workers • Those at highest risk of developing complications from Covid-19 (ACIP high risk conditions)	• General public
Vaccine distribution by:	• Local health departments • Hospitals • Vaccination clinics (through LHDs) • Essential employer work sites	• Local health departments • Hospitals • Pharmacies • Primary care practices • Urgent care centers • School vaccination clinics

Vaccine Resources

- CDC Covid-19 Vaccination Communication Toolkit - ready made materials, how to build vaccine confidence, social media messages
- New York Times Vaccine Tracker - information on every Covid vaccine in development
- New York Times Vaccine Distribution Tracker – information on the distribution of Covid vaccines in the United States
- MDH Covidlink Vaccine Page - information on vaccine priority groups in Maryland
- CDC Vaccine Storage and Handling Toolkit
- Project ECHO Webinar - webinar on vaccines and Long Term Care Facilities, relevant for primary care

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Covid-19 Vaccines/Immunization Information

- Maryland Covid-19 Vaccination Plan
- New York Times Coronavirus Vaccine Tracker
- ImmuNet Information
  - ImmuNet enrollment form
  - ImmuNet helpdesk contact information
  - Guidance for practices how about reporting to ImmuNet
  - Technical specifications for the EHR interface with ImmuNet
  - ImmuNet log-in information portal
- Summary of vaccines under development

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Covid-19 mAb Treatment Criteria

- Patient Criteria
  - Have BMI >= 35
  - Have chronic kidney disease
  - Have diabetes
  - Are currently receiving immunosuppressive treatment
  - Are >= 65 years old
  - Are >=55 years old and have
    - ✔ Cardiovascular disease, or
    - ✔ Hypertension, or
    - ✔ Chronic obstructive pulmonary disease/other chronic respiratory disease
  - Are 12 – 17 years old AND have
    - ✔ BMI >=85th percentile for their age and gender based on CDC growth charts, or
    - ✔ Sickle cell disease, or
    - ✔ Congenital or acquired heart disease, or
    - ✔ Neurodevelopmental disorders, or
    - ✔ A medical-related technological dependence, or
    - ✔ Asthma

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Source: FDA

Covid-19 Testing Information

- Maryland Department of Health testing announcements and accessibility information and resources
- CDC Covid-19 testing overview
- MDPCP Roadmap to Recovery – Covid-19 testing guidelines
- Maryland Department of Health guidance regarding point of Care rapid antigen Covid testing
- myLAB Box - Covid-19 testing program for Maryland clinicians
- FDA letter to clinical laboratory staff and health care providers about the potential for false positive results with rapid antigen tests for Covid-19

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Primary Care Involvement

- Continue to encourage and vaccinate your patients with the flu shot
- Ensure that you are onboarded (connected) with ImmuNet to report vaccinations administered
- Once available, register to become a Covid vaccine provider
- Use the CVI tool to begin to identify your patients that are at a higher risk for Covid

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Scheduling In-Office Appointments

- Patient calls in for an appointment
  - Reception screens patient on the phone using the pre-visit screening template
  - Schedule in-office visits for different groups: At-risk and vulnerable patients on certain days, healthier patients on other days
  - Schedule telehealth and non-office-based care for other patients including follow-ups and patients uncomfortable with office visits
- Check In
  - Practice remote check in and limited front-desk contact
  - Consider using a triage zone outside of office or main area;
  - Or use a barrier at the front desk
  - Design your office to accommodate patients who come in specifically for Covid testing and triage, separate from patients who arrive for non-Covid related and elective procedures
    - ✔ Ensure patients and staff do not cross between Covid and non-Covid areas
    - ✔ Set aside a specific area for patients who come in for testing to wait and be triaged

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Scheduling In-Office Appointments

- Checking out
  - Practice remote check out, limit front desk exposure;
  - Or use a barrier at the front desk

- If patient is paying co-pays, etc., set up credit card reader outside of the barrier

- Other workflow resources
  - Care management workflows
  - BMJ telemedicine workflow graphics
  - CDC flowchart to identify and assess 2019 novel Coronavirus
  - CDC telephone evaluation flow chart for flu
  - CDC guidance for potential Covid-19 exposure associated with international or domestic travel

CDC Guidelines for Covid Patient Management

- Healthy people can be monitored, self-isolated at home
- People at higher risk should contact healthcare providers early, even if illness is mild
- Older adults and people with severe underlying chronic medical conditions are at higher risk, need closer contact
- Emergency Department and Hospitals only when needed - not for screening or low risk/minimal disease

- **Guidelines are important and powerful tools, but remember providers' clinical experience and judgment are key to care**

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Prepare Safe Workflows and Stock Sufficient PPE

- Ensure your practice has 30 days of PPE immediately available
- Consult usual suppliers and order PPE well in advance of anticipated need
  - There may be PPE shortages in the future
- Continue using PPE according to CDC guidelines
- Ensure safe workflows for all patients, particularly vulnerable patients

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Sources: Washington Post, Nature

Personal Protective Equipment (PPE) Sources and Requests

- Practices should initially request PPE through their usual vendors
- Practices should make their PPE requests through their local health departments
- Maryland PPE Manufacturers List – next slide
- National and international PPE supplier list
- PPE request form

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Personal Protective Equipment (PPE) Sources and Requests

- Increasing Maryland's supply of PPE – one of the 4 building blocks on the Road to Recovery
- Maryland has launched the Maryland Manufacturing Network Supplier Portal, an online platform that helps connect Maryland suppliers with buyers in need of critical resources
- For additional business resources during Covid-19, visit businessexpress.maryland.gov/coronavirus
- Providers may also request PPE from the non-profit 'Get Us PPE'

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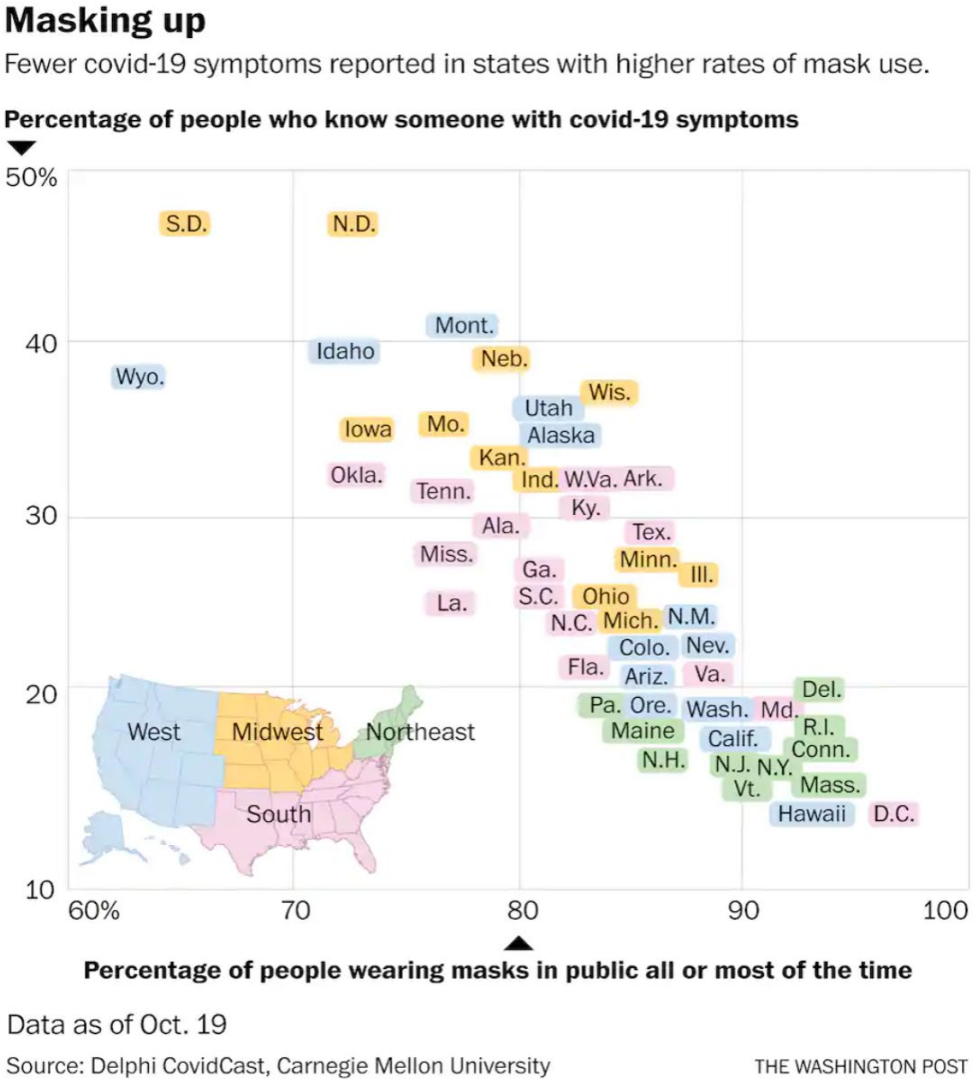
Masks and Distancing Remain Critical



- IHME model:
  - Universal mask use *saves 129,574 lives* before Feb 2021
  - 85% mask use *saves 95,814 lives* before Feb 2021

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Sources: Washington Post, Nature

MD COVID Alert App

- New opt-in cell phone app that notifies users if they have been exposed to somebody who is Covid-19 positive
- Mimics CDC close contact definition (6-feet or less for >15 minutes) with bluetooth
- Individuals who receive exposure notifications:
  - Receive advice to get tested
  - Receive information about possible exposure date
  - COVID-19 positive users may receive a call from a contact tracer
- More information is available here

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Sources: The Baltimore Sun, MDH

Provider/Patient Mental Health Resources

- Providers
  - "Helping the Helpers and Those They Serve," a webinar series from the Maryland Department of Health Behavioral Health Administration and MedChi (on the 2nd and 4th Thursdays of every month starting 11/12/2020)
  - Heroes Health Initiative
- Patients
  - Ask Suicide-Screening Questions toolkit
  - CDC list of resources for coping with stress

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Health Equity Resources

- Maryland Department of Health Office of Minority Health and Health Disparities (MHHD)
- Maryland Department of Health Minority Outreach and Technical Assistance Program overview
- MHHD fiscal year 2020 minority outreach and technical assistance program information
- Description of the term “health disparity”
- Implicit bias test
- “Hundreds of Days of Action as a Start to Address Hundreds of Years of Inequality” – New England Journal of Medicine article by Maulik Joshi, DrPH
- “Discussion Draft of the Preliminary Framework for Equitable Allocation of COVID-19 Vaccine” – discussion draft for public comment by Committee on Equitable Allocation of Vaccine for the Novel Coronavirus, The National Academies of Science, Engineering, Medicine

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Telehealth Resources

- Maryland Health Care Commission Telehealth
- Maryland Health Care Commission Telehealth Readiness Assessment Tool
- U.S. Department of Health and Human Services Health Insurance Portability and Accountability Act (HIPAA) for Professionals
- American Telehealth Association
- Maryland Telehealth Alliance
- National Consortium of Telehealth Resource Centers

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Support for Patients at Home

- Food
  - Meals on Wheels
- Caregivers
  - Visiting nurses and caregivers
- Emotional support
  - Support from family
  - Phone calls and videochat to fight loneliness
  - MD Department of Aging Senior Call Check Program

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Staying Current - Sources

- CDC
- MDH Covid-19 information page
- MDPCP Covid-19 webpage
- Local Health Departments
- CONNECT
- Clinician Letters
- Multiple Resource Links in Appendix

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MedChi/CareFirst/Backline Grant

CareFirst BlueCross BlueShield (CareFirst) and the Maryland State Medical Society (MedChi) launched a grant program that will equip additional Maryland physicians with the technology they need to provide needed virtual care during the Covid-19 pandemic and beyond

Eligibility Requirements

- The medical practice and medical license are in Maryland
- The medical practice is a private, independent group of five or fewer physicians
- The practice enrolls in Backline after March 1, 2020 as the result of the Covid-19 crisis
- MedChi has confirmed the practice's enrollment with DrFirst
- Enrollment in Backline occurs before December 31, 2020

Application Steps

Can be completed in less than 5 minutes

- Complete the application linked here
- Email completed application to amullin@medchi.org
- For questions, email or call Andrea Mullin at amullin@medchi.org or 800-492-1056 x3340

Grant Amount

$300 per eligible physician

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Food Resources

- Nutrition: Inform patients that children can receive three free meals/day at sites listed on:
  - Maryland Summer Meals
  - Montgomery County
  - Prince Georges County
  - Charles County
  - Frederick County
  - Howard County
  - Anne Arundel County
  - St. Mary's County
  - Harford County
  - Calvert County
- Free meals available from 42 rec centers in Baltimore
  - Call 311 for locations and to schedule pickup time

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Resources for Specific Groups

- Community- and Faith-Based Organizations (https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-community-faith-organizations.html)
- Mass Gatherings and Large Community Events (https://www.cdc.gov/coronavirus/2019-ncov/community/mass-gatherings-ready-for-covid-19.html)
- Non-Pharmaceutical Interventions for Specific Groups (https://www.cdc.gov/nonpharmaceutical-interventions/index.html)

Resources and References

- Maryland Department of Health Coronavirus Website (https://coronavirus.maryland.gov)
- CDC Coronavirus Website (https://www.cdc.gov/coronavirus/2019-nCoV/index.html)
- CDC National data on Covid-19 infection and mortality (https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html)
- CDC Interim Guidance for Homes and Communities (https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html)
- CDC Interim Guidance for Businesses (https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html)
- CDC Interim Guidance for Childcare and Schools (https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-for-schools.html)
- CDC Travel Website (https://wwwnc.cdc.gov/travel/)

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