Maryland
DEPARTMENT OF HEALTH

Covid-19 Update

Maryland Department of Health
Maryland Primary Care Program
Program Management Office

17 February 2021

New Optimism
Time to focus on Equity

Maryland
DEPARTMENT OF HEALTH

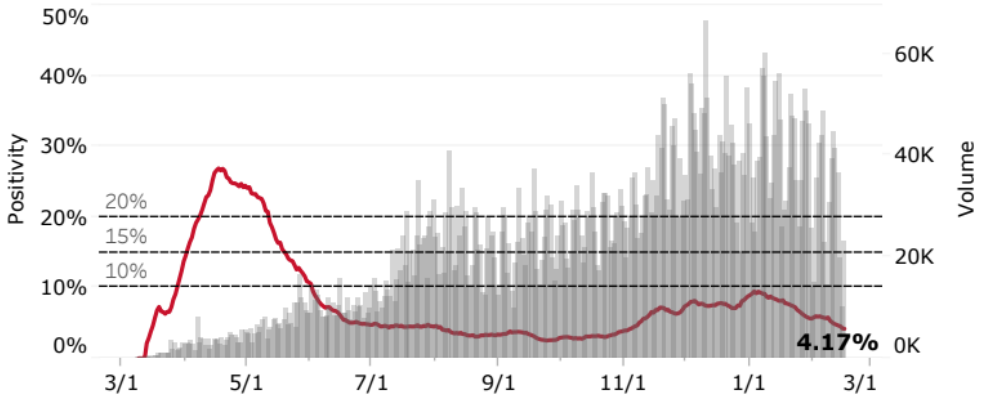
Daily COVID-19 Report

Data reported as of 2/17/2021 for data through 2/16/2021

372,980 cases cumulative	**7,519,063** tests cumulative	**14.9** 7-day avg. case rate	**7,030** total hospital adult census	**7,449** deaths cumulative
759 cases reported yesterday	**23,159** tests reported yesterday	**4.17%** 7-day avg. positivity	**325** change in total hospital census	**19** deaths reported yesterday

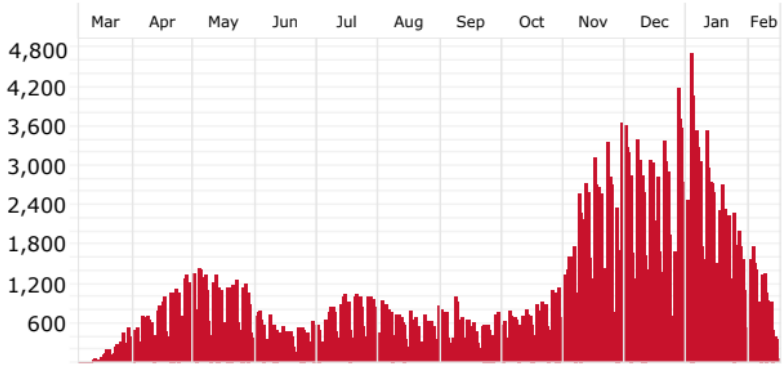
7-Day Avg. Percent Positivity and Total Testing Volume

Since 3/1/20

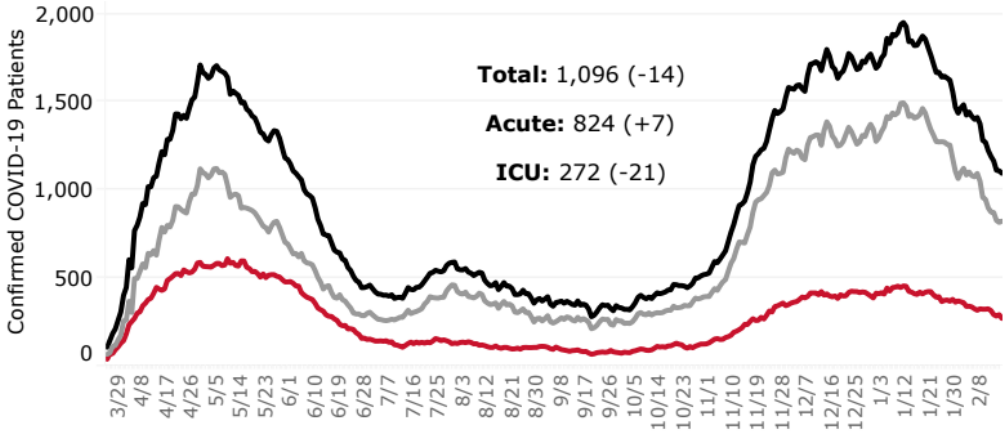


Daily New Cases

by Specimen Collection Date

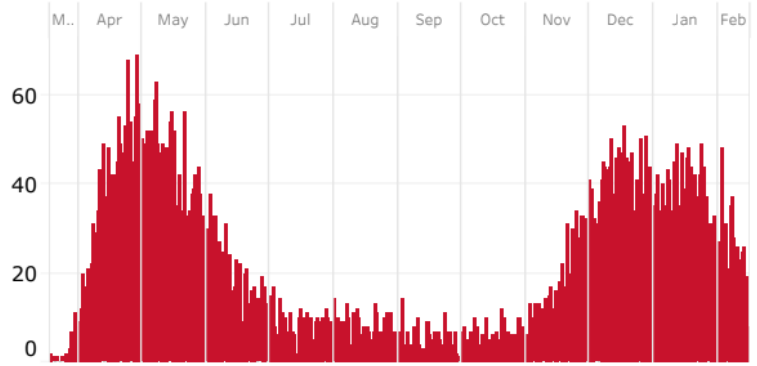


Statewide Acute/ICU Beds Occupied by COVID Patients



Daily Deaths

Confirmed and Probable



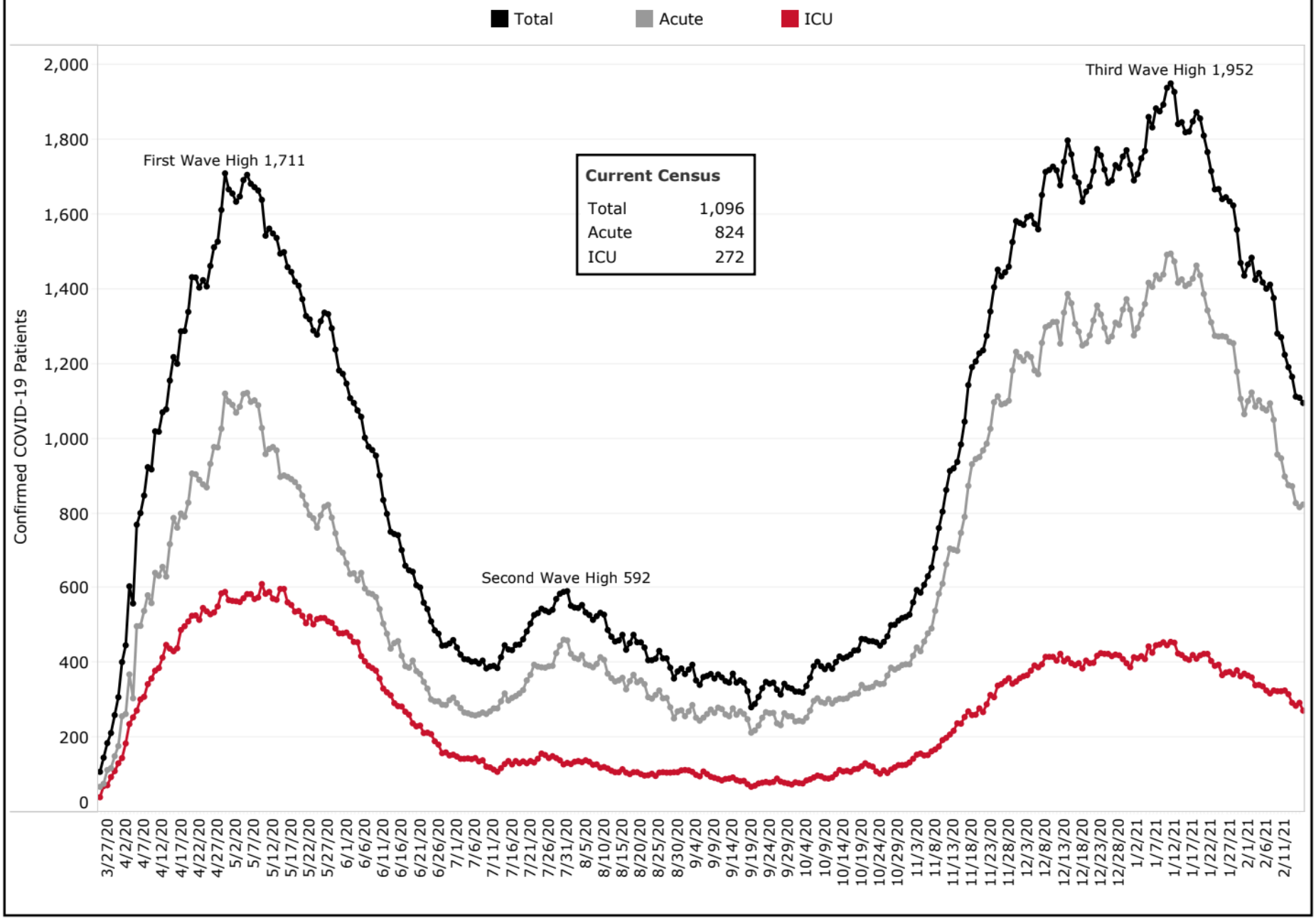
Case rate calculated as total confirmed cases per 100,000 population using the 2019 Maryland Population estimates from the Maryland Department of Planning, March 2020.

Maryland
DEPARTMENT OF HEALTH

Statewide Acute/ICU Beds Occupied by COVID Patients

Data reported as of 2/17/2021 for data through 2/16/2021

Since 3/25/20



Hospital Covid Pressure Declining

Hospitalized Confirmed COVID-19 Patients

Staffed Acute Care Beds Occupied by COVID-19 Patients:		Staffed ICU Beds Occupied by COVID-19 Patients:	
817		293	
(817/6888) = 12%		(293/1255) = 23%	
Change from day before:	-11 patients	Change from day before:	+8 patients
7-Day Trend	-16.48%	7-Day Trend	-13.40%
14-Day Trend	-28.66%	14-Day Trend	-16.67%

Maryland
DEPARTMENT OF HEALTH

Source: CRISP

Maryland Resident Recorded COVID-19 Deaths

Reported as of February 16, 2021 at 5:00pm

	Confirmed	Probable*
Total	7,449	181

	Confirmed		Probable*	
Age Group	Number	% of Total	Number	% of Total
0-9 yrs	3	0%	0	
10-19 yrs	6	0%	1	1%
20-29 yrs	34	0%	1	1%
30-39 yrs	74	1%	6	3%
40-49 yrs	201	3%	5	3%
50-59 yrs	561	8%	24	13%
60-69 yrs	1,178	16%	18	10%
70-79 yrs	1,896	25%	35	19%
80+ yrs	3,493	47%	91	50%
Unknown	3	0%	0	

	Confirmed		Probable*	
Place of Death	Number	% of Total	Number	% of Total
DOA	4	0%	1	1%
ER/Outpatient	246	3%	37	20%
Home	381	5%	40	22%
Hospice	583	8%	7	4%
Inpatient	4,302	58%	35	19%
Nursing Home	1,658	22%	50	28%
Other	275	4%	11	6%

	Confirmed		Probable*	
Gender	Number	% of Total	Number	% of Total
Male	3,860	52%	92	51%
Female	3,589	48%	89	49%

	Confirmed		Probable*	
Race / Ethnicity	Number	% of Total	Number	% of Total
Hispanic	685	9%	15	8%
NH Black	2,567	34%	64	35%
NH White	3,799	51%	95	52%
NH Asian	257	3%	7	4%
NH Other	74	1%	0	
Unknown	67	1%	0	

Race / Ethnicity	Population by Race 2019	Mortality Rate per 100,000 population**
Hispanic	643,822	106.4
NH Black	1,866,852	137.5
NH White	3,090,330	122.9
NH Asian	426,593	60.2
NH Other		
Unknown		

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

Important Items This Week

- All indicators moving in optimistic direction
- Vaccines in Phase 1c but supply remains low
- Mass Vaccine sites opened
- Test volumes declining
- Identify and treat patients using monoclonal antibodies
- Emerging variants of Covid virus
- Providers not registered in Immunet to be a Covid Vaccinator - final step missing
- Health equity is still an issue
- Vaccine and mAb hesitancy are best addressed by trusted providers
- **Now is the time to prepare for provider vaccination programs**

Maryland
DEPARTMENT OF HEALTH

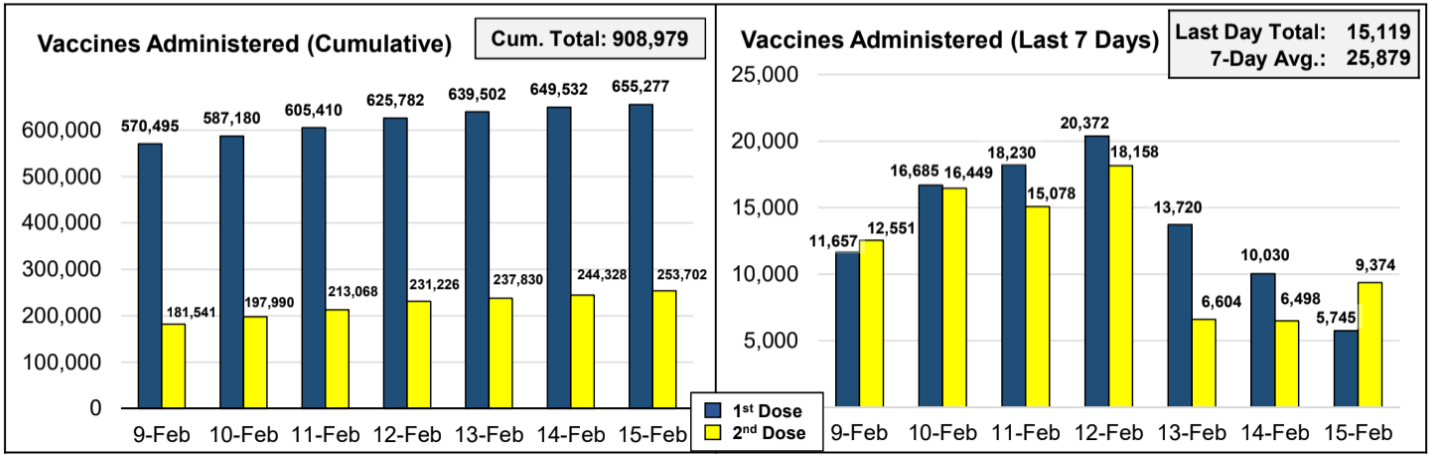
Vaccine Administration

Maryland
DEPARTMENT OF HEALTH

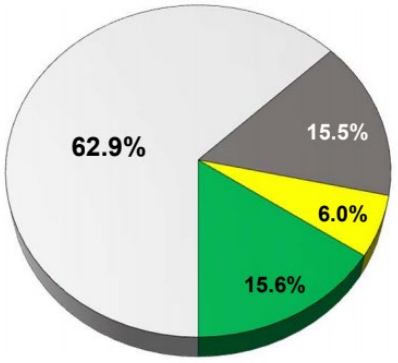
COVID Vaccine Summary

NUMBERS ARE PRELIMINARY AND SUBJECT TO CHANGE

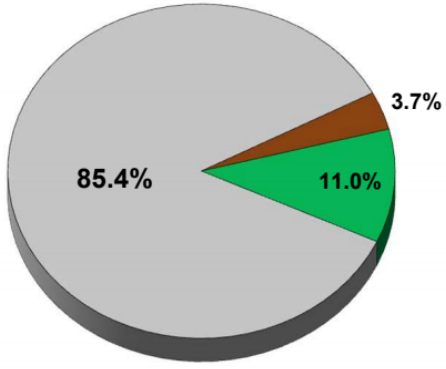
Current as of: 02/16/2021



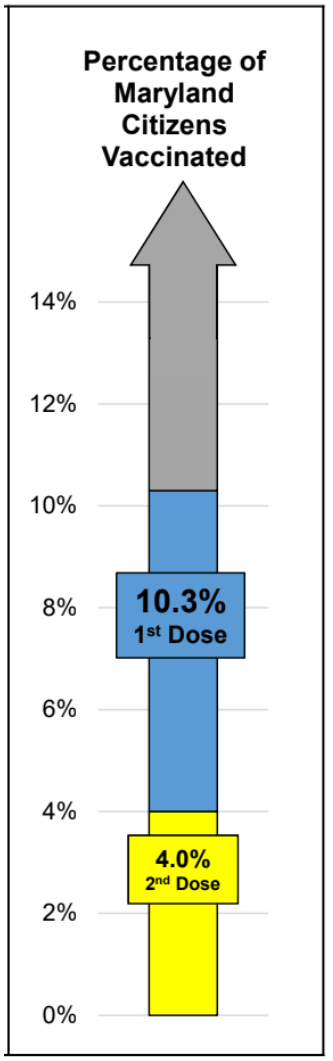
Race (Cumulative)



Ethnicity (Cumulative)



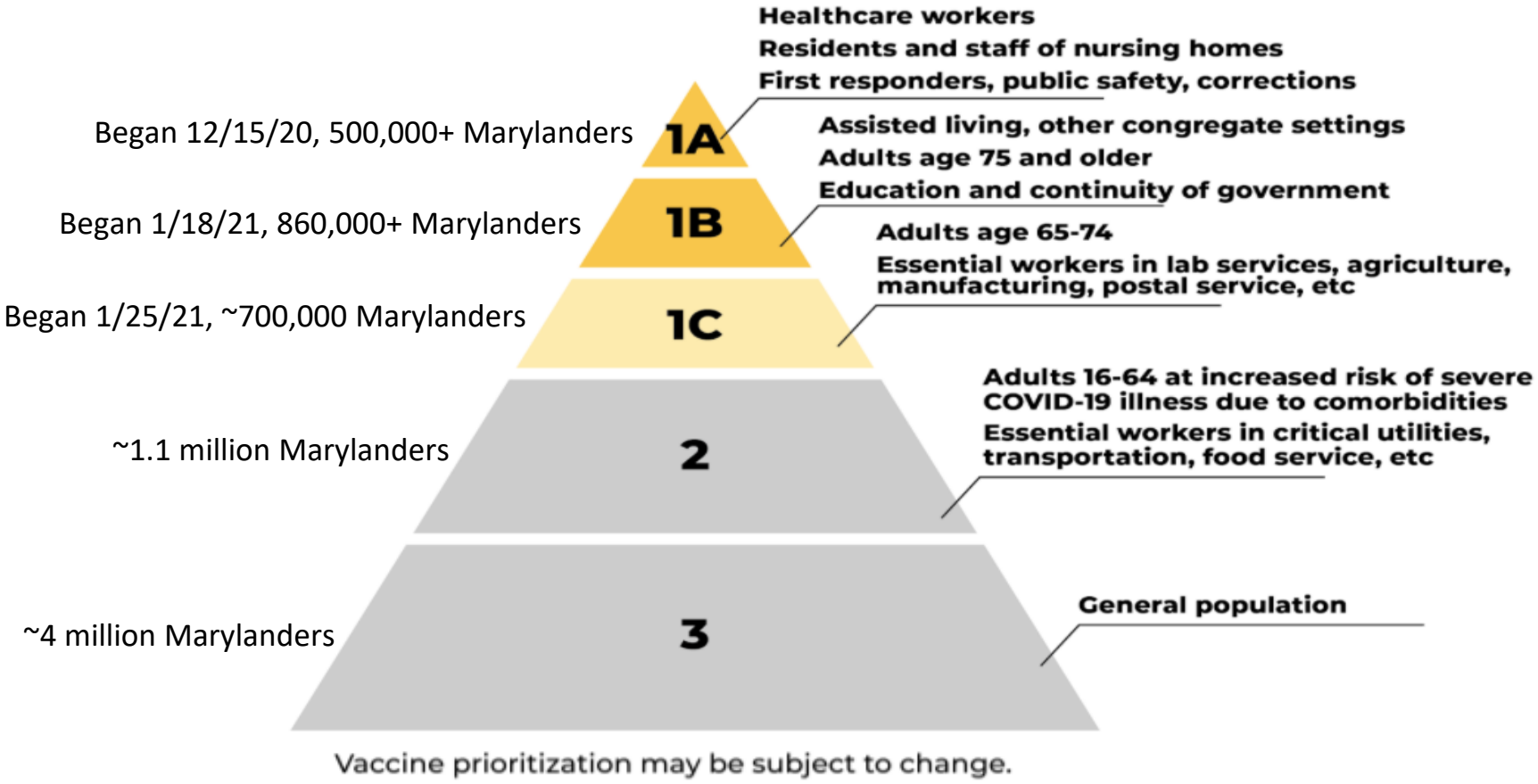
Current as of: 02/16/2021



Projection and Current Allocation - Vaccination

Current Allocation	~72,000 per week
Current number vaccinated (1st dose)	655,277
Target for Herd Immunity (70%)	4,200,000
Approximate left to reach target	3,540,000
Weeks to herd immunity at current rate	49
ETA Herd Immunity ❖ Sooner as vaccine rate increases ❖ Sooner if count natural immunity ❖ May be affected by variants, new vaccines	Jan 2022

Priority Groups



Maryland
DEPARTMENT OF HEALTH

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

Next Potential Vaccines

	Johnson & Johnson	AstraZeneca	NOVAVAX
Vaccine Type	Viral Vector	Viral Vector	Protein-Based
Schedule	• One dose regimen	• Two dose regimen • 4 weeks apart	• Two dose regimen • 3 weeks apart
Efficacy	• 72% in United States, 66% in Latin America, 57% in South Africa	• 62% to 90%, depending on dosage	• 89.3%, UK trial
Storage	• Up to two years frozen at –4° F (–20° C), and up to three months refrigerated at 36–46° F (2–8° C)	• Stable in refrigerator for at least 6 months	• Stable in refrigerator

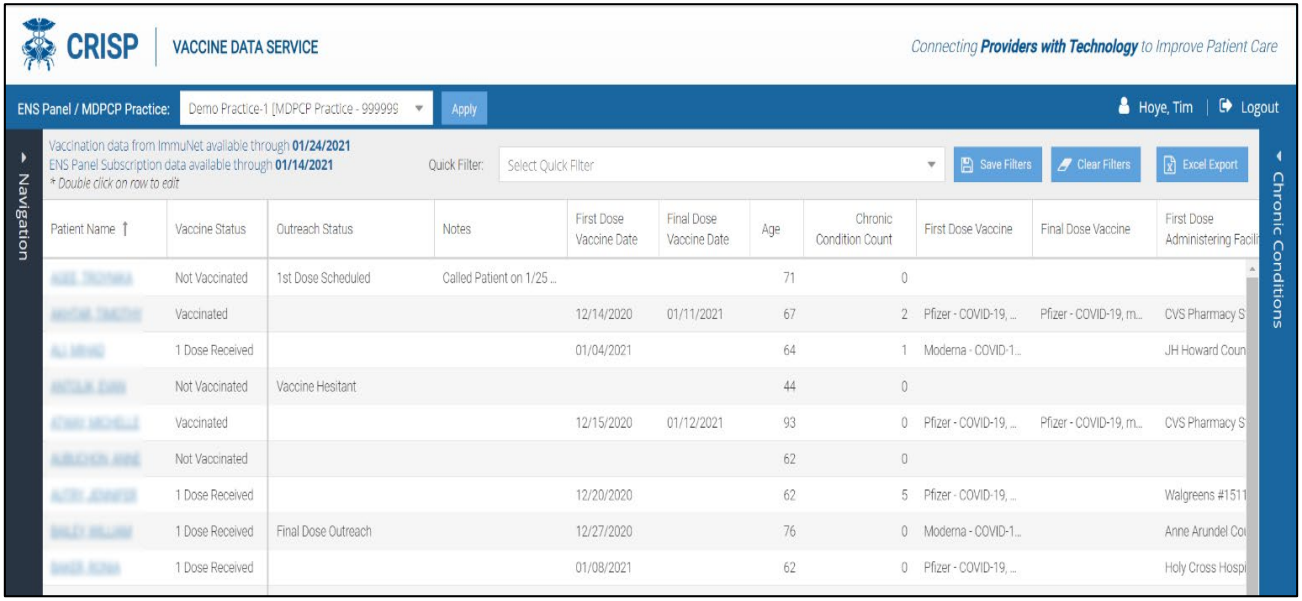
Source: New York Times

Current Vaccine Providers

- Local Health Departments
- Hospitals
- National Pharmacy Chains - SNF and LTC facilities
- Local Pharmacies
- Kaiser
- FQHCs
- State Mass vax sites
  - Baltimore Convention Center
  - M/T Stadium
  - Six Flags

Maryland
DEPARTMENT OF HEALTH

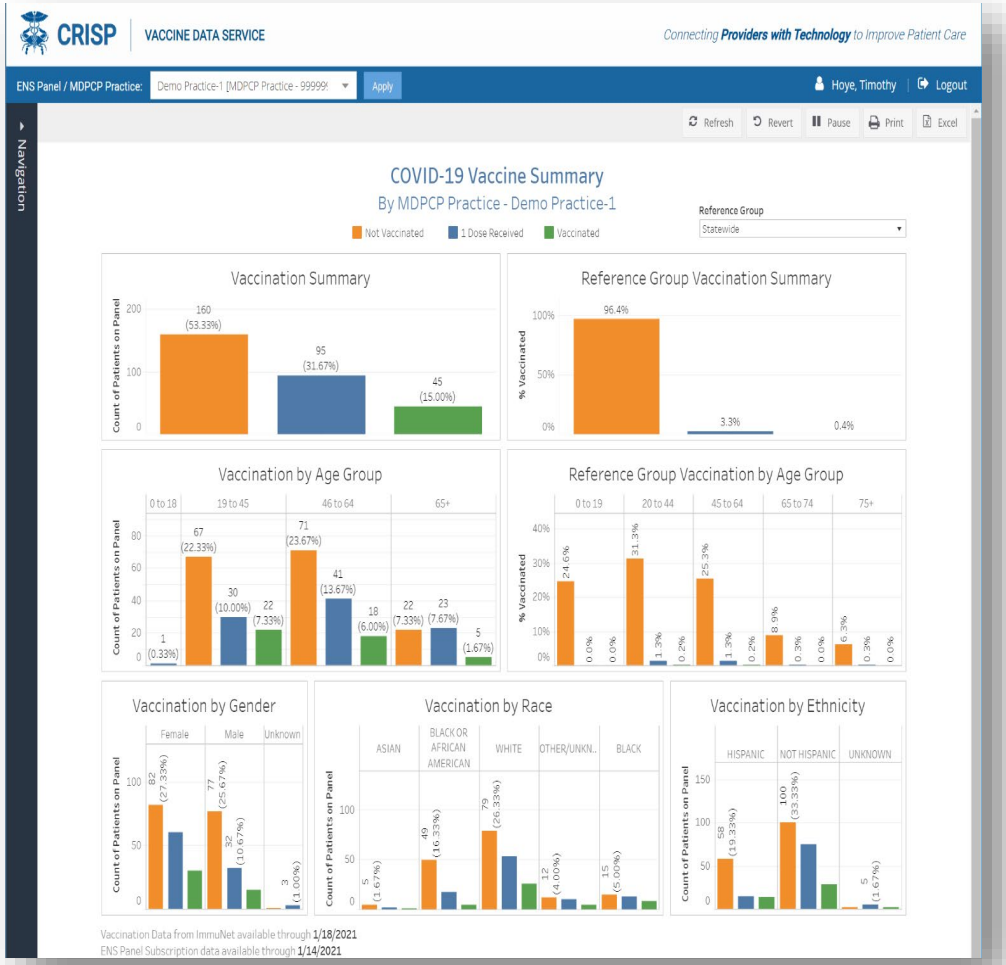
CRISP Vaccine Tracking Tool



- This tool is live now! 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
- User editable status to track outreach efforts

Maryland
DEPARTMENT OF HEALTH

CRISP Vaccine Tracking Tool



Summary Reports

- Compare your Practice to MD Statewide population or relevant Peer Groups
- Compare by demographic fields
- Track a practice's patient vaccination status over time

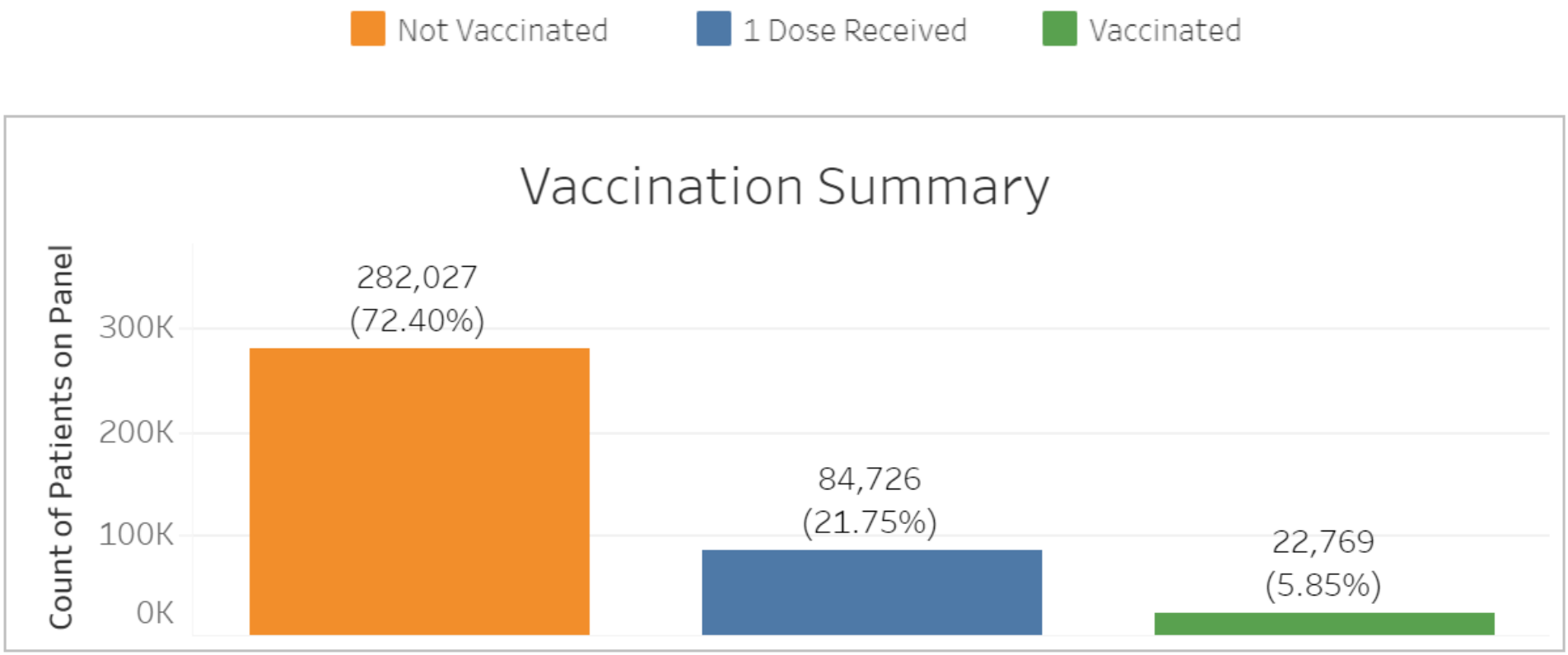
Report Training Webinars

- Friday 2/26, 10am

Maryland DEPARTMENT OF HEALTH

MDPCP Only - Vaccination Summary

Medicare Fee-For-Service Attributed Beneficiaries Only

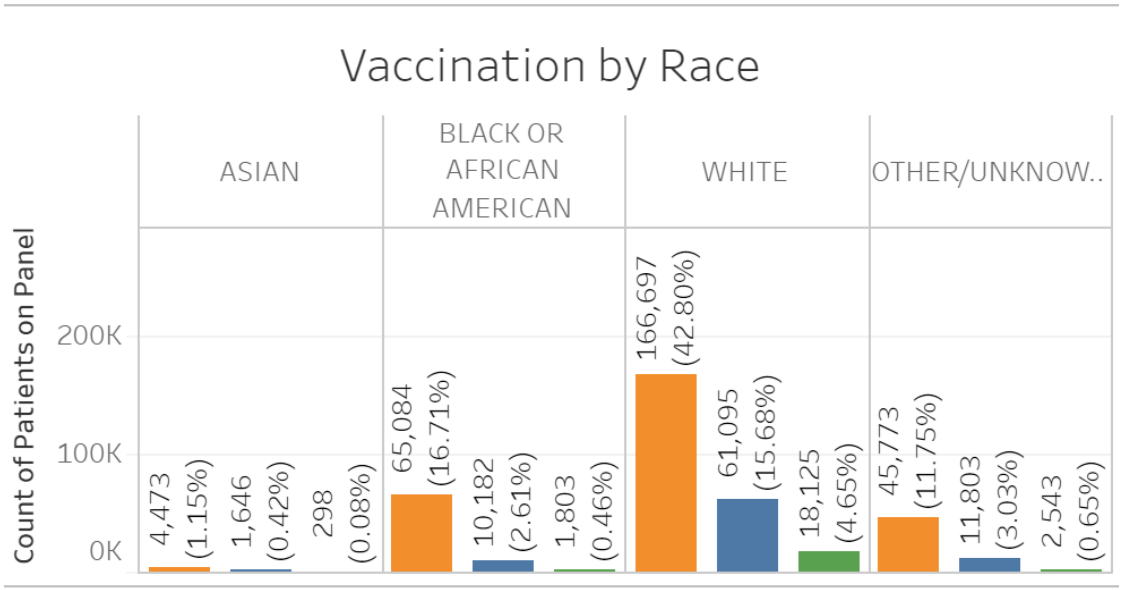


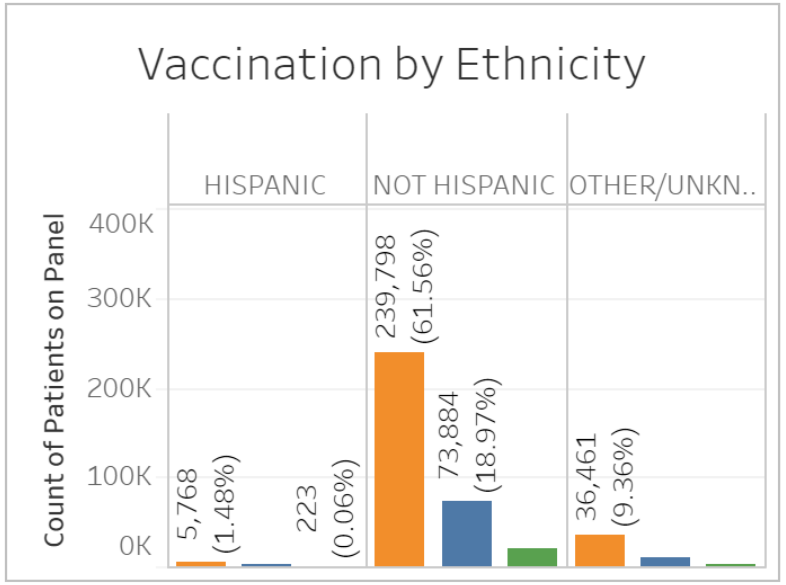
Maryland
DEPARTMENT OF HEALTH

Updated 2/16

MDPCP Only - Vaccination by Race & Ethnicity

Medicare Fee-For-Service Attributed Beneficiaries Only





Not Vaccinated 1 Dose Received Vaccinated

Maryland
DEPARTMENT OF HEALTH

Vaccine Payments

- CMS website link: Covid-19 Medicare Billing and Coding
- No cost sharing for patient
- Vaccines will be provided at no cost to provider

Medicare Payment	Category
$28.39	Single-dose Covid-19 vaccine
$16.94; $28.39	First and second dose of a two-dose Covid-19 vaccine

- CareFirst information here - same reimbursement

Maryland
DEPARTMENT OF HEALTH

Covid Vaccine & Pregnant Individuals

- 2/11 MDH Letter
- Limited data about safety of current vaccines for people who are pregnant
- Experts believe that mRNA vaccines are unlikely to pose a risk to the pregnant person or fetus because mRNA vaccines are not live vaccines
- Resources
  - CDC Vaccination Considerations for People who are Pregnant or Breastfeeding
  - American College of Obstetricians and Gynecologists (ACOG) Recommendation

Maryland
DEPARTMENT OF HEALTH

Anaphylaxis is rare but happens

- JAMA article analyzes Vaccine Adverse Event Reporting System (VAERS) reports of anaphylaxis with Pfizer and Moderna vaccines
- **Pfizer**: 4.7 cases anaphylaxis/million doses administered
- **Moderna**: 2.5 cases anaphylaxis/million doses administered
- Data from 12/14/20 - 1/18/21
- No deaths

Maryland
DEPARTMENT OF HEALTH

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)

Maryland
DEPARTMENT OF HEALTH

PCP Frustration About Vaccine Access Widespread Across the United States

- Federal and state-level efforts have focused on developing large vaccination sites, using pharmacies to distribute vaccines
- Patients often have trouble navigating the sign-up process
- Only 20% of PCP respondents to a mid-January Larry A Green Center/Primary Care Collaborative survey indicated they were administering vaccines to patients
  - Many could not get the vaccine
  - 1/3 had not been in contact with their local health department
- PCPs will play an important role at administering vaccines later this year when supply > demand
  - PCPs will be critical to addressing vaccine hesitancy; 8 in 10 people are likely to rely on the advice of a doctor, nurse, or other provider when deciding whether or not to get immunized

Maryland DEPARTMENT OF HEALTH

Source: New York Times

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**

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

Maryland DEPARTMENT OF HEALTH

2/11 MDH Amended Directive and Order on Health Care Matters

MDH Amended Directive and Order On Health Care Matters

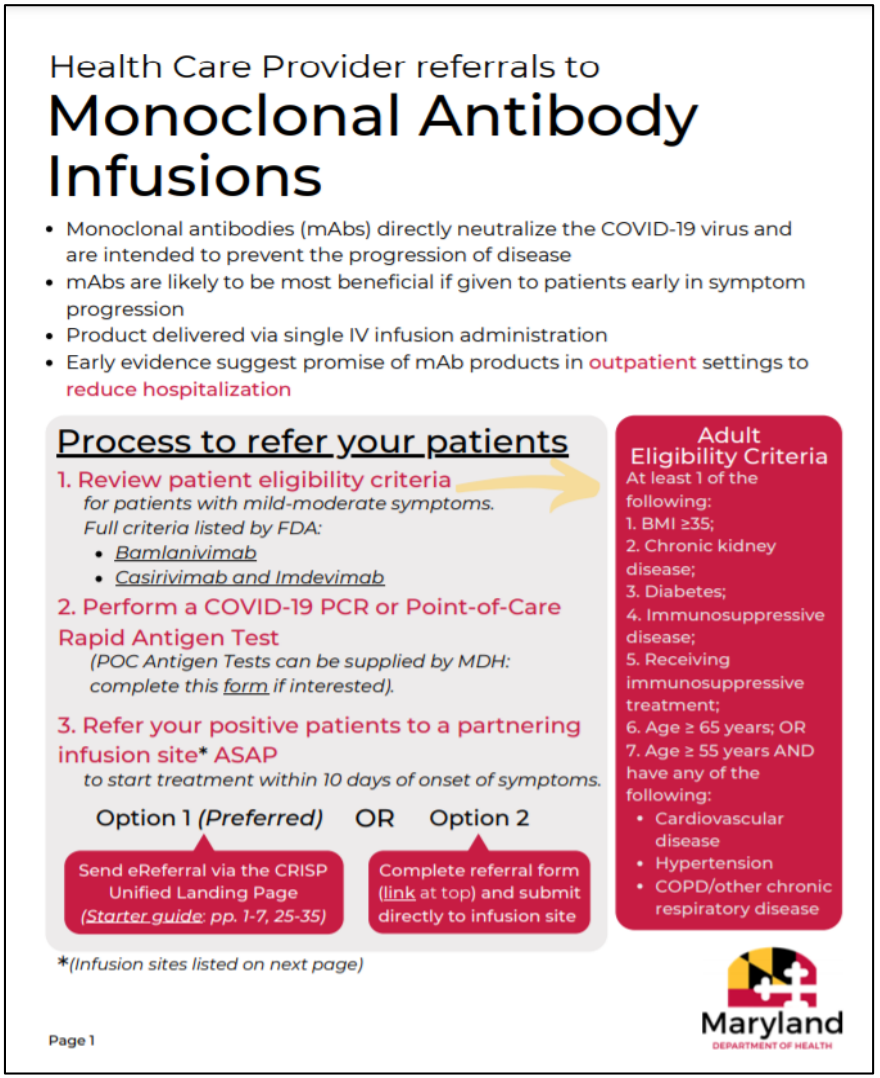
- Extended out of state travel testing requirement from February 28, 2021 to March 31, 2021
- Extended Hospital Surge Plans and Patient Transfer Provisions (Section 10.A) from March 31, 2021 to April 30, 2021
- Updated hospital visitation guidelines (Section 9)
- Removal of remaining limitations on Elective and Non-Urgent Medical Procedures (Section 5)
- Changed PPE Use and Conservation Requirements to Guidelines (Section 6)

Maryland
DEPARTMENT OF HEALTH

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

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)

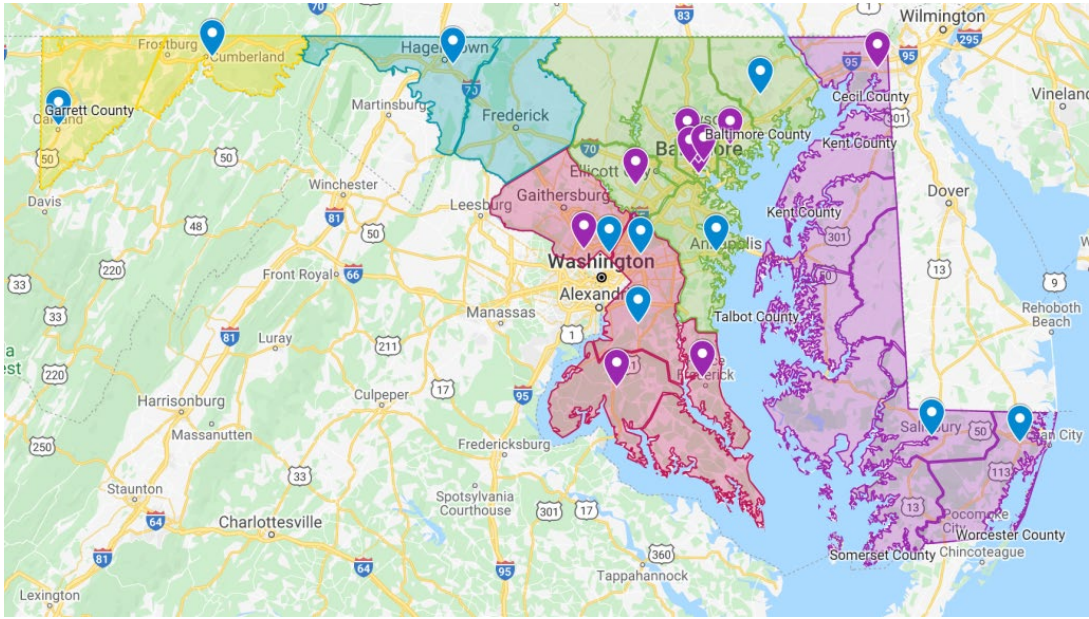
Page 1

Maryland DEPARTMENT OF HEALTH

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

Monoclonal Antibody Referral Data

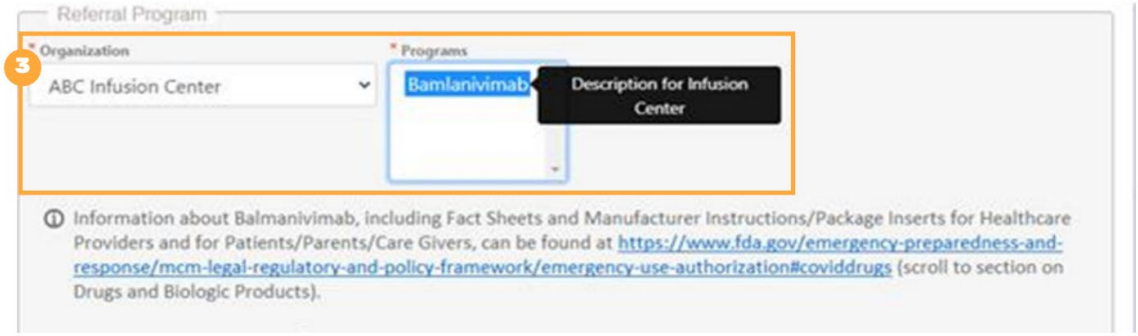
- Maryland has **avoided 162 hospitalizations** due to monoclonal antibody infusions (number needed to treat = 21.3)
- A total of approximately 242 infusions have occurred in the nursing home settings (out of the 3,460 infusions)



3,460 **Monoclonal Antibody Infusions Administered: Nov – Feb 7 2021**

Maryland DEPARTMENT OF HEALTH

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

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

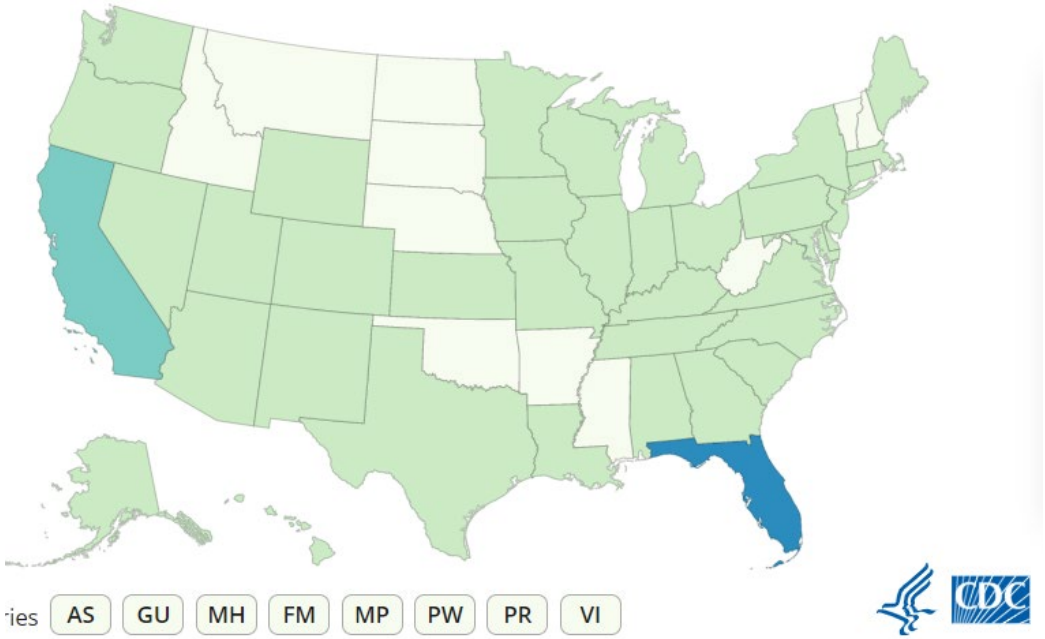
Maryland
DEPARTMENT OF HEALTH

Emerging Variants in the United States

"By the time someone has symptoms, gets a test, has a positive result and we get the sequence, our opportunity for doing real case control and contact tracing is largely gone.

We should be treating every case as if it's a variant during this pandemic right now." - Dr. Rochelle Walensky, CDC Director

New variant reporting to MDH



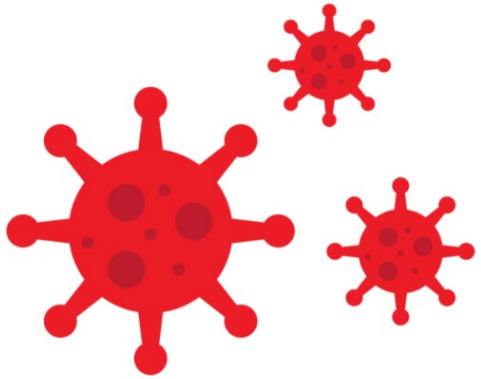
Variant	Reported Cases in US	Number of States Reporting
B.1.1.7	1173	40
B.1.351	17	8
P.1	3	2

Emerging Variant Cases in the United States*†

Source: CDC *Updated 2/15/21*

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**



Maryland
DEPARTMENT OF HEALTH

School Reopenings

- MDH/MSDE guidance on how schools should respond to Covid-like illness here
- Maryland school Covid-19 testing program
  - Free Covid tests for schools that are open in March 2021 and the remainder of the school year
- CDC school reopening guidance
  1. Layered mitigation strategies to reduce spread (masks, distancing, hygiene, contact tracing)
  2. Use indicators of community transmission to determine risk
  3. Phased learning modes depending on community transmission levels

Maryland
DEPARTMENT OF HEALTH

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

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

– John Lennon

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

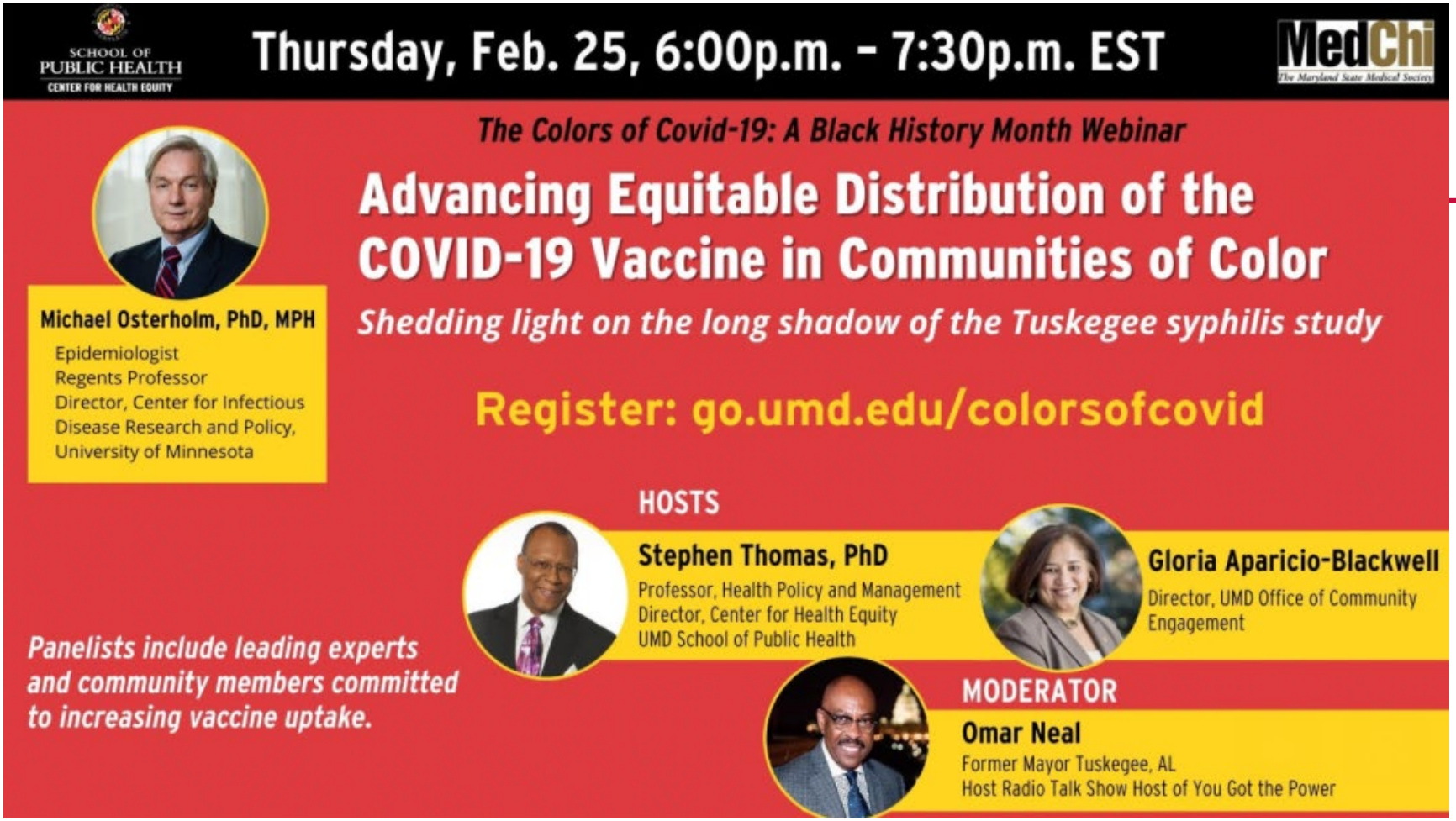
2. **Provide vulnerable patients with expanded care** through telemedicine and special accommodations if they need face-to-face care

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

Maryland
DEPARTMENT OF HEALTH



Friday, Feb. 25 | 6:00pm | University of Maryland Center for Health Equity Webinar with Dr. Michael Osterholm: Advancing Equitable Distribution of the COVID-19 Vaccine in Communities of Color

Register at: go.umd.edu/colorsofcovid

Maryland DEPARTMENT OF HEALTH

Webinar Series:
Helping the Helpers and Those They Serve

The Maryland Department of Health (MDH) Behavioral Health Administration (BHA) and MedChi are pleased to announce the new webinar series, the BHA/MedChi Behavioral Health Webinar Series: Helping the Helpers and Those They Serve.

These webinars are for Maryland's behavioral health and medical health care workers of all disciplines, whether working in community or hospital settings. **They are designed to enhance both health care worker self-care and resultantly the care they provide, as health care workers combat numerous stressors including the COVID-19 pandemic, social justice issues, and other stressors that can potentially impact delivered care.** The below webinars are open for registration. All webinars are from 5-6 p.m.

BHA/MedChi Behavioral Health Webinars Series will be held on:

- **February 25: How to Address, Manage, and Heal from the Racial Microaggressions Experienced by Health Care Workers in Everyday Life.**

  Stephanie Slowly, MSW, LCSW-C. Moderator: Shanta Powell, MD

  ✔ Register for this webinar at this link: https://zoom.us/webinar/register/WN_XwmBPqF4TfWEE0GNdLc8pw

- **March 11: Self-Compassion and Self-Care as Buffers Against the Stress of the Pandemic**

  Monica Neel, Psy.D. Moderator: TBD

  ✔ Register for this webinar at this link: https://us02web.zoom.us/webinar/register/WN_XkMQkuoGRrysxOcRBQumbw

CMEs and Participant Certificates will be available at no cost.

For information and to register, visit: bha.health.maryland.gov

Maryland
DEPARTMENT OF HEALTH

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**

Maryland
DEPARTMENT OF HEALTH

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*

Maryland
DEPARTMENT OF HEALTH

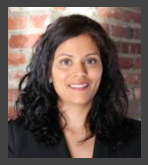
Announcements

- Learn from:
  - Our FAQs page (last updated November 2020)
  - MDH FAQs
- Wednesday Covid-19 Updates
  - Wednesday, 2/24/21 (5-6:30pm)
  - Wednesday, 3/3/21 (5-6:30pm)
  - Wednesday, 3/10/21 (5-6:30pm)
- Guest Speaker
  - Today – **Rupali Limaye, PhD, Vaccine hesitancy and COVID-19: Communication and trust to reduce disparities**
  - Future
    - ✔ 2/24 – Lois Privor-Dumm, MBA, Lessons from community listening sessions on vaccine hesitancy
    - ✔ 3/3 - Ann Parker, MD, PhD, Post-Acute Covid Care

Vaccine hesitancy and COVID-19: Communication and trust to reduce disparities

Rupali J. Limaye, PhD, MPH, MA
Departments of International Health, Epidemiology, and Health, Behavior & Society
Director, Behavioral and Implementation Science, International Vaccine Access Center
Johns Hopkins Bloomberg School of Public Health

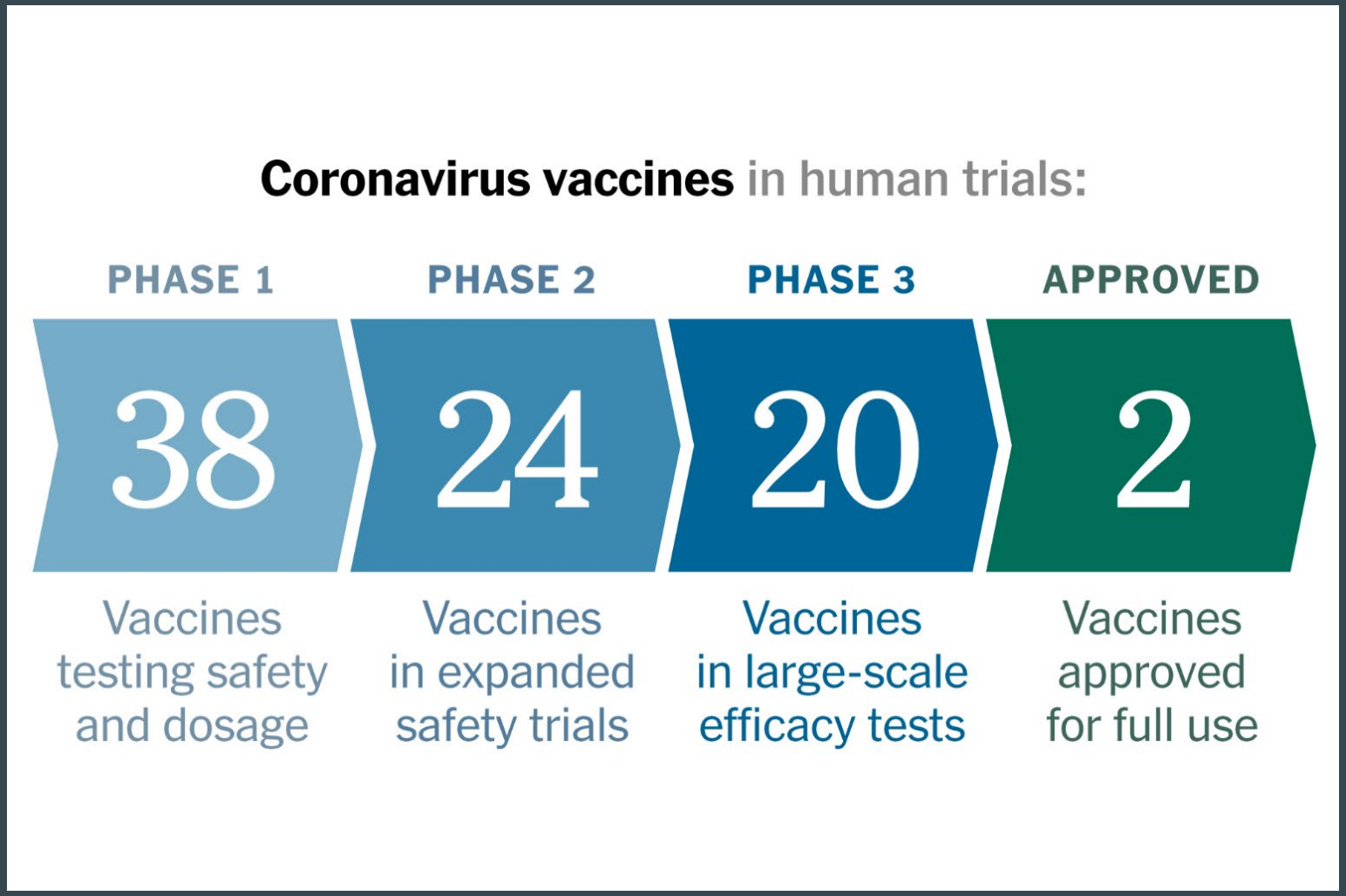
JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH



INTERNATIONAL VACCINE ACCESS CENTER

Roadmap

- Where we are in terms of vaccine products
- Drivers of vaccine hesitancy in the COVID-19 context specific to minority populations and generally
- How we should communicate about COVID-19 vaccines


Coronavirus vaccines in human trials:
PHASE 1
38
Vaccines testing safety and dosage
PHASE 2
24
Vaccines in expanded safety trials
PHASE 3
20
Vaccines in large-scale efficacy tests
APPROVED
2
Vaccines approved for full use

PFE/BNTX

BNT162B2

DOSE: 30 MICROGRAMS
EFFICACY: 95%
STORAGE: -70 C
COST: $19.50/DOSE
U.S. PURCHASE: $1.95 B/100M DOSES

MRNA

MRNA-1273

DOSE: 100 MICROGRAMS
EFFICACY: 94.50%
STORAGE: -20 C
COST: $37/DOSE
U.S. PURCHASE: $1.5B/100M DOSES

When a COVID-19 vaccine becomes available

How can we assure the public that vaccine recommendations reflect the state of scientific knowledge?

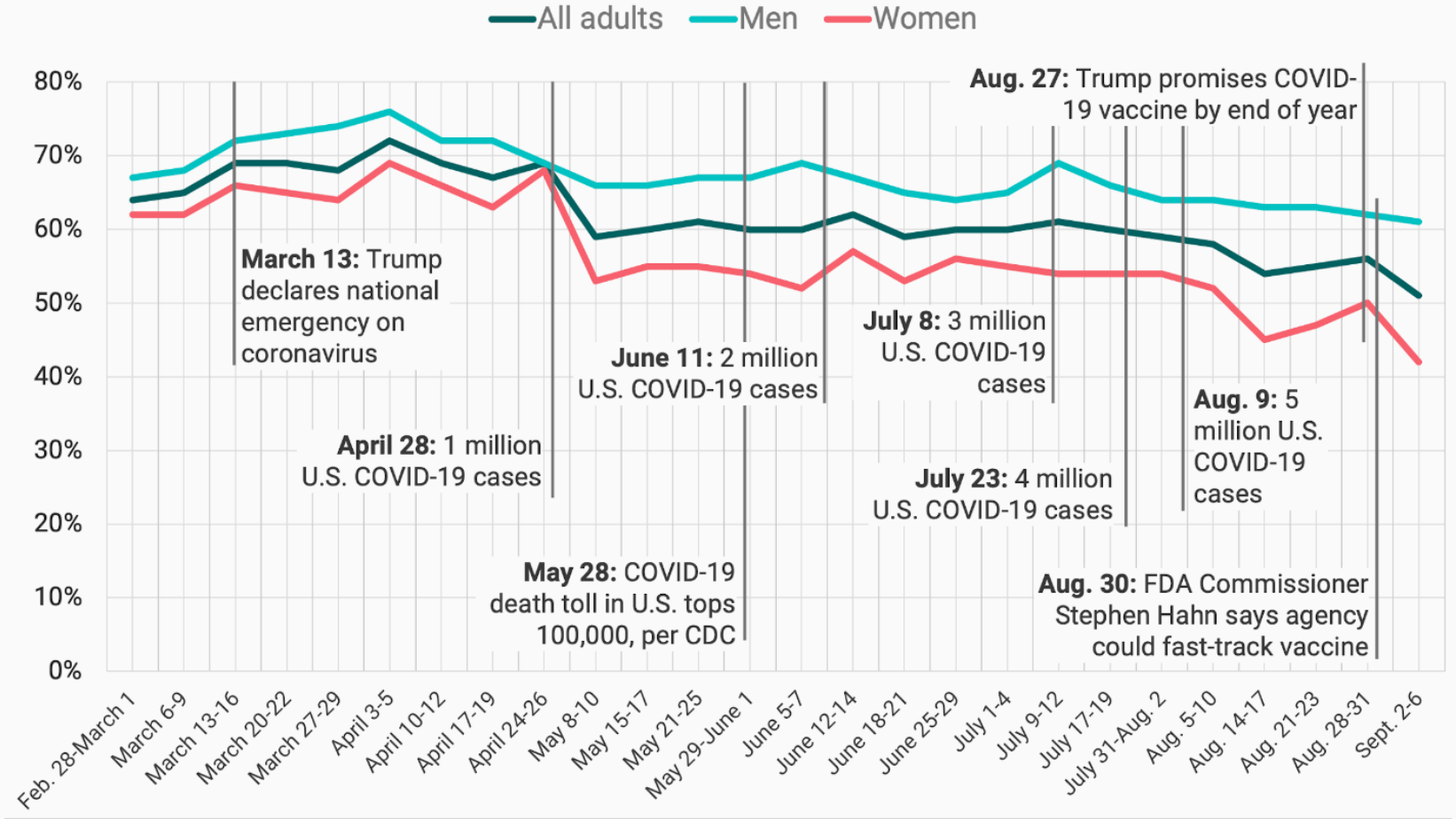
This problem is exacerbated:

- In times of crisis, during which there is considerable scientific uncertainty
- When available measures have a limited effect
- Politicians—rather than experts—are the public face of crisis management

Peretti-Watel, P., Seror, V., Cortaredona, S., Launay, O., Raude, J., Verger, P., ... & Léger, D. (2020). A future vaccination campaign against COVID-19 at risk of vaccine hesitancy and politicisation. *The Lancet Infectious Diseases*.

Share of U.S. Adults Who Say They'd Get a COVID-19 Vaccine Has Fallen 21 Points Since Early-April Peak

U.S. adults were asked whether they would get a coronavirus vaccine if one became available



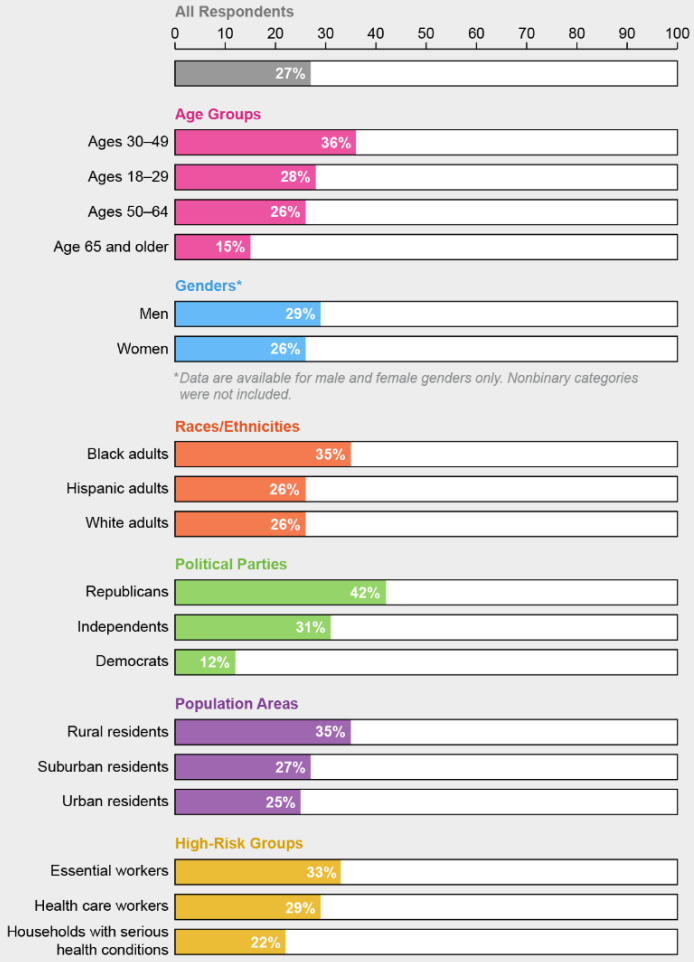
MORNING CONSULT

Polls conducted Feb. 28-March 1, 2020, through Sept. 2-6, 2020, among 990-2,200 U.S. adults each, with margins of error of +/-2% to +/-3%.

Which Groups Are Most Resistant to Getting the COVID-19 Vaccine?

Different subgroups of the U.S. population have varying reasons for distrusting the COVID-19 vaccine. This means that public health messages will need to be targeted to specific groups—a one-size-fits-all approach will not work. In December 2020 the Kaiser Family Foundation conducted a survey of 1,676 adults, asking them whether they would likely get a vaccine against COVID-19 if it was freely available and deemed safe by scientists. A breakdown of those who said they would "probably not" or "definitely not" be vaccinated is below.

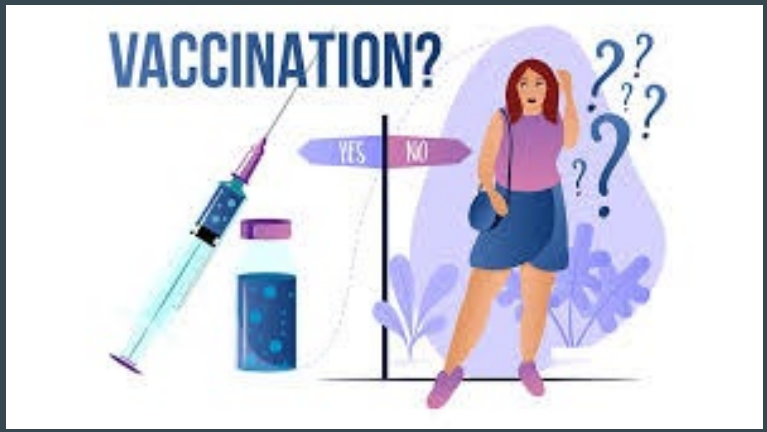
Percent of Respondents Who Expressed Vaccine Hesitancy by Demographic Group



What is driving vaccine hesitancy within the COVID-19 context?

Arguments underlying hesitancy pre-COVID

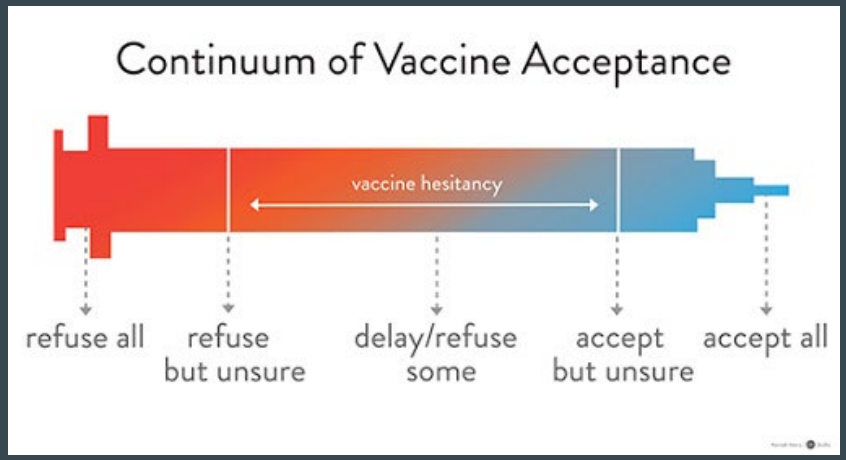
- Vaccine ingredients
- Vaccine schedule
- Misperception of link between vaccines and severe adverse events (i.e., autism)
- Low levels of risk perception



Marti, M., de Cola, M., MacDonald, N. E., Dumolard, L., & Duclos, P. (2017). Assessments of global drivers of vaccine hesitancy in 2014—Looking beyond safety concerns. *PloS one*, *12*(3), e0172310.

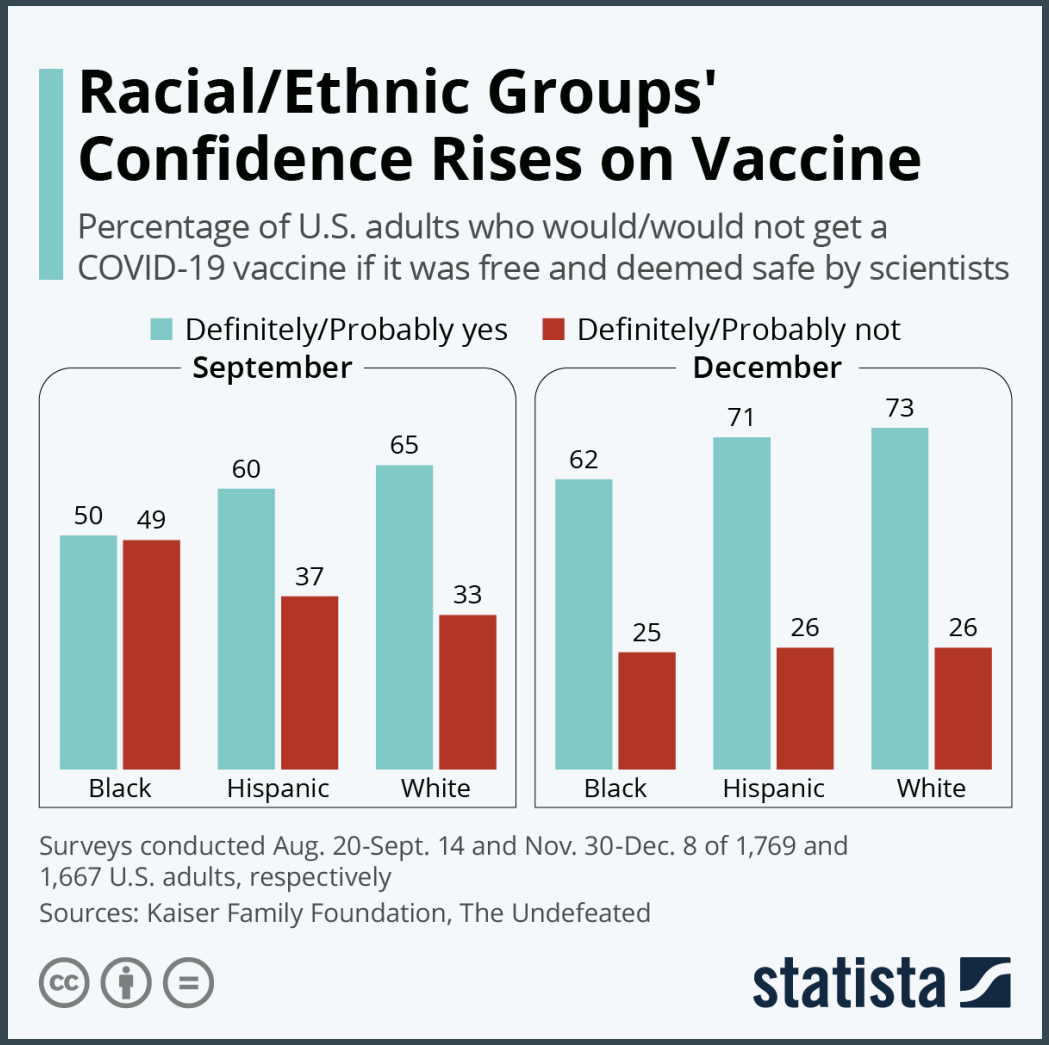
Arguments underlying hesitancy have shifted

- Distrust and lack of confidence
- Misinformation
- Polarization of attitudes



Limaye, R.J., Sauer, M., Ali, JA., Bernstein, J., Wahl, B., Barnhill, A., Labrique, A.B. (2020). Building trust while influencing online COVID-19 content in the social media world. *Lancet Digital Health.*

Distrust and lack of confidence



Odds Ratios of Intentions, Confidence, and Trust for Black and Hispanic Pregnant Women Compared to White Pregnant Women, Controlled for Education, First Child and State (n=1,862)	Black OR (95%CI)**	Hispanic OR (95%CI)**
Maternal Vaccine Intentions		
Influenza	**0.45 (0.34, 0.60)**	**0.61 (0.44, 0.85)**
Tdap	**0.33 (0.25, 0.44)**	**0.41 (0.30, 0.58)**
Influenza and Tdap	**0.35 (0.27, 0.47)**	**0.52 (0.37, 0.72)**
Confidence in Vaccine Safety Statements		
I am confident that getting the flu vaccine during my pregnancy is safe for me.	**0.37 (0.27, 0.49)**	0.70 (0.48, 1.02)
I am confident that getting the flu vaccine during my pregnancy is safe for my unborn baby.	**0.37 (0.27, 0.49)**	0.71 (0.49, 1.03)
I am confident that getting the whooping cough vaccine during my pregnancy is safe for me.	**0.32 (0.24, 0.44)**	**0.59 (0.40, 0.86)**
I am confident that getting the whooping cough vaccine during my pregnancy is safe for my unborn baby.	**0.37 (0.27, 0.52)**	**0.48 (0.33, 0.70)**
Trust in Maternal Vaccine Information Source Statements		
I trust the information provided by my obstetrician or midwife about vaccines during pregnancy.	**0.59 (0.36, 0.99)**	0.68 (0.39, 1.21)
I trust the information provided by naturopathic and/or chiropractic doctors about vaccines during pregnancy.	**1.64 (1.12, 2.39)**	**1.66 (1.06, 2.60)**
I trust the information provided by federal agencies such as the Centers for Disease Control and Prevention (CDC) about vaccines during pregnancy.	**0.54 (0.39, 0.75)**	0.75 (0.50, 1.11)
I trust the information provided by scientists and doctors at universities and academic institutions about vaccines during pregnancy.	**0.56 (0.40, 0.78)**	**0.65 (0.43, 0.99)**

Dudley, M.Z., Limaye, R.J., Salmon, D.A., Omer, S.B., O'Leary, S.T., Ellingson, M.K., Spina, C.I., Brewer, S.E., Bednarcyzk, R.A., Malik, F., Frew, P.M., Chamberlain, A.C. (In press). Ethnic disparities among maternal vaccine knowledge, attitudes, and intentions. *Public Health Reports*.

Distrust and lack of confidence

- Working with African Methodist Episcopalian Zion congregations
- Over the last 3 months, have met with 24 congregations in the mid-Atlantic (MD, VA, PA, NY, WV, DE, NC)
- 30-60 members in each meeting
- Congregation members are primarily 55+
- Key concerns:
  - Distrustful of the vaccine development process (timing, recruitment of participants)
  - Distrustful of health care system due to history of medical experimentation
  - Lack of confidence: “Is the vaccine safe for Black people?”
  - Lack of confidence related to safety of the vaccine and other co-morbidities

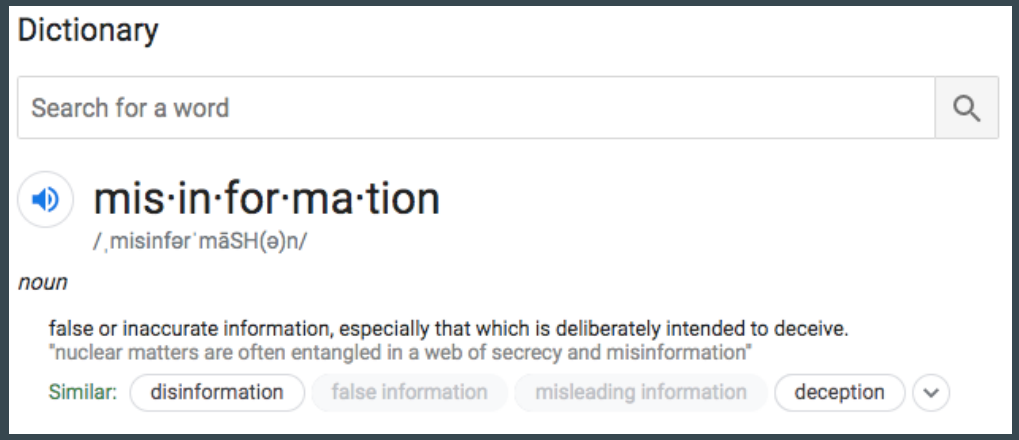
Distrust and lack of confidence

- Working with non-profits that serve incarcerated populations
- Over the last 3 months, have met with 3 groups of incarcerated populations (NY)
- Approximately 20 people in each meeting (either Hispanic and Black)
- Individuals were 21-35
- Key concerns:
  - Distrustful of the vaccine development process (timing, recruitment of participants)
  - Distrustful of health care system due to history of medical experimentation
  - Lack of confidence: concerns about efficacy of the vaccine itself

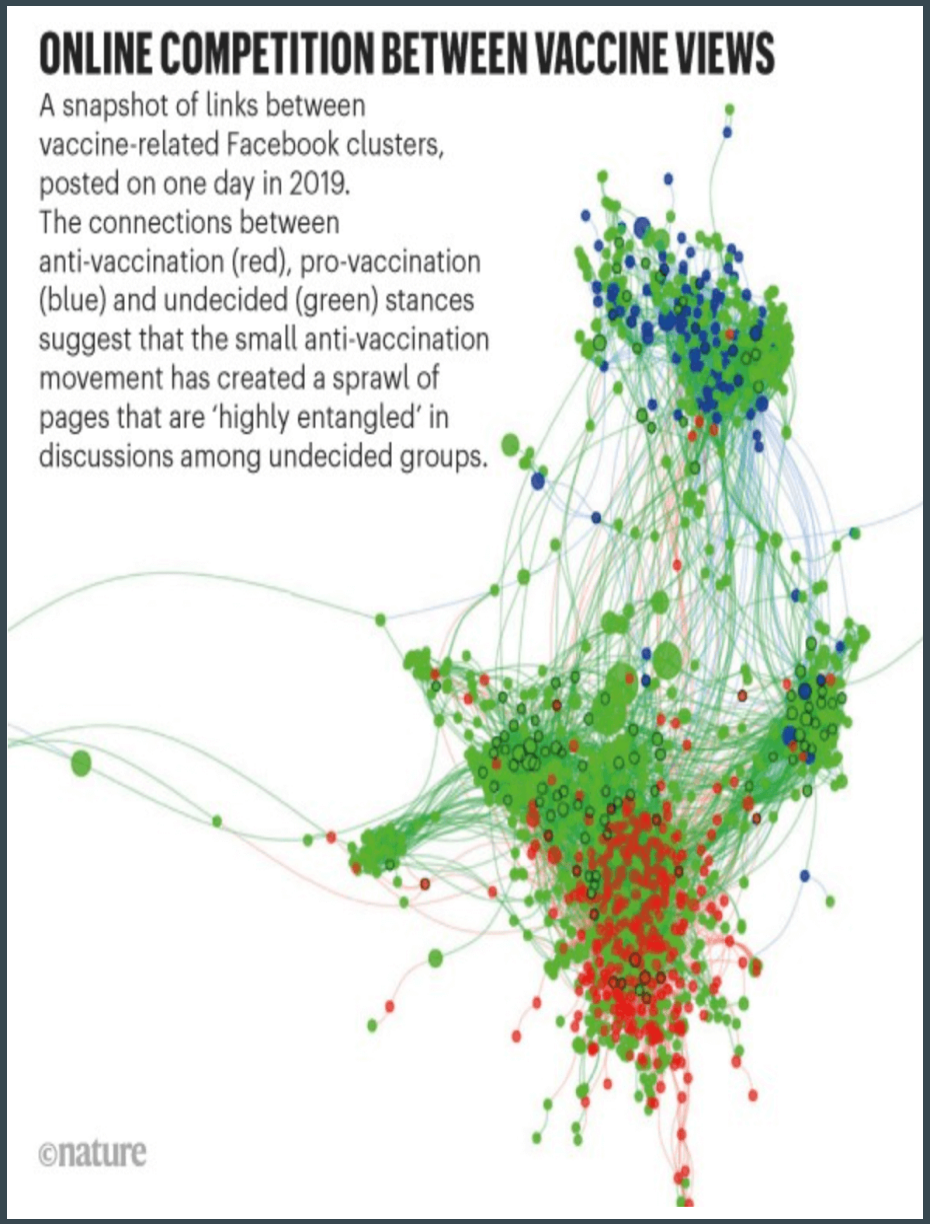
Misinformation and disinformation

Dictionary.com's 2018 Word of the Year: *Misinformation*

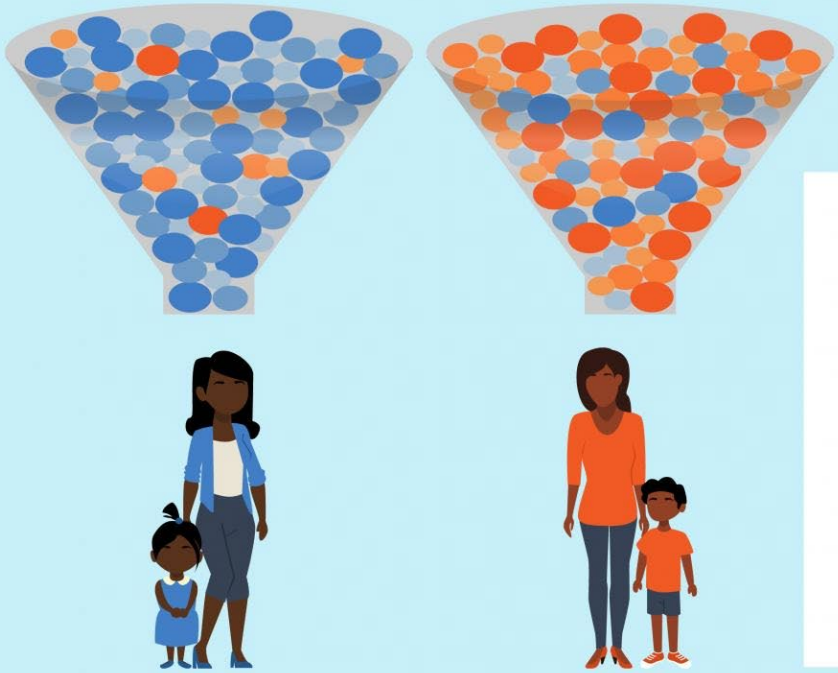
- When people spread misinformation, they often believe the information they are sharing
- Disinformation is crafted and disseminated with the intent to mislead others
- Example: If a political leader claims that COVID-19 is no worse than the flu, despite knowing otherwise, that is *disinformation*. When an individual hears this, believes it, and then shares it, that is *misinformation*.



Polarization of attitudes



Echo chamber: Parents hear information that reinforces their decision about child's flu vaccine



Decision:
Child will get
flu vaccine

Decision:
Child will not get
flu vaccine

Number of sources that made parents:

WANT vaccine vs **QUESTION or NOT WANT** vaccine

- 5-6 sources
- 3-4 sources
- 1-2 sources

each circle = 1% of parents

Source: C.S. Mott Children's Hospital National Poll on Children's Health, 2018

How should we communicate about the vaccines?

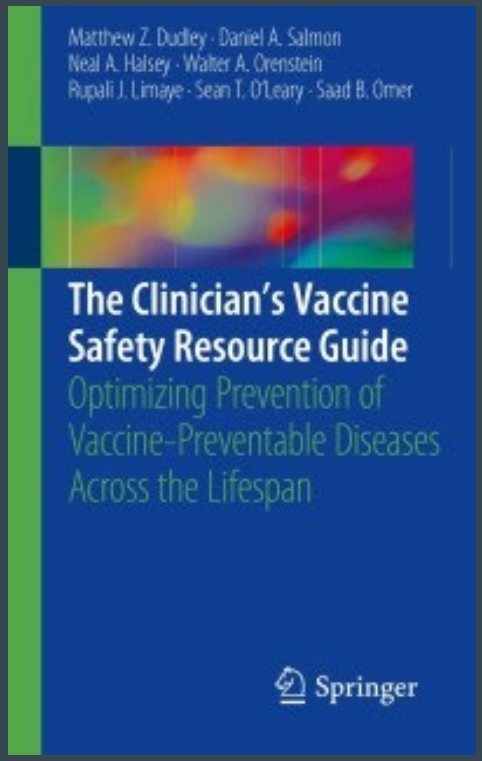
How should we communicate about the vaccine?

- **Trust**: Communicate to build, maintain, and restore trust between public and those managing outbreak
  - This includes communication regarding side effects
- **Announce early**: Proactive communication, even with incomplete information, is crucial
  - Baltimore Mayor Young press briefings
- **Transparency:** Maintaining public trust requires ongoing transparency including timely and complete information.
  - Disseminating trial data
- **Listening:** Understanding public risk perceptions, views, and concerns is critical to effective communication

World Health Organization Outbreak Communication Planning Guide, 2008

How should we communicate to increase trust?

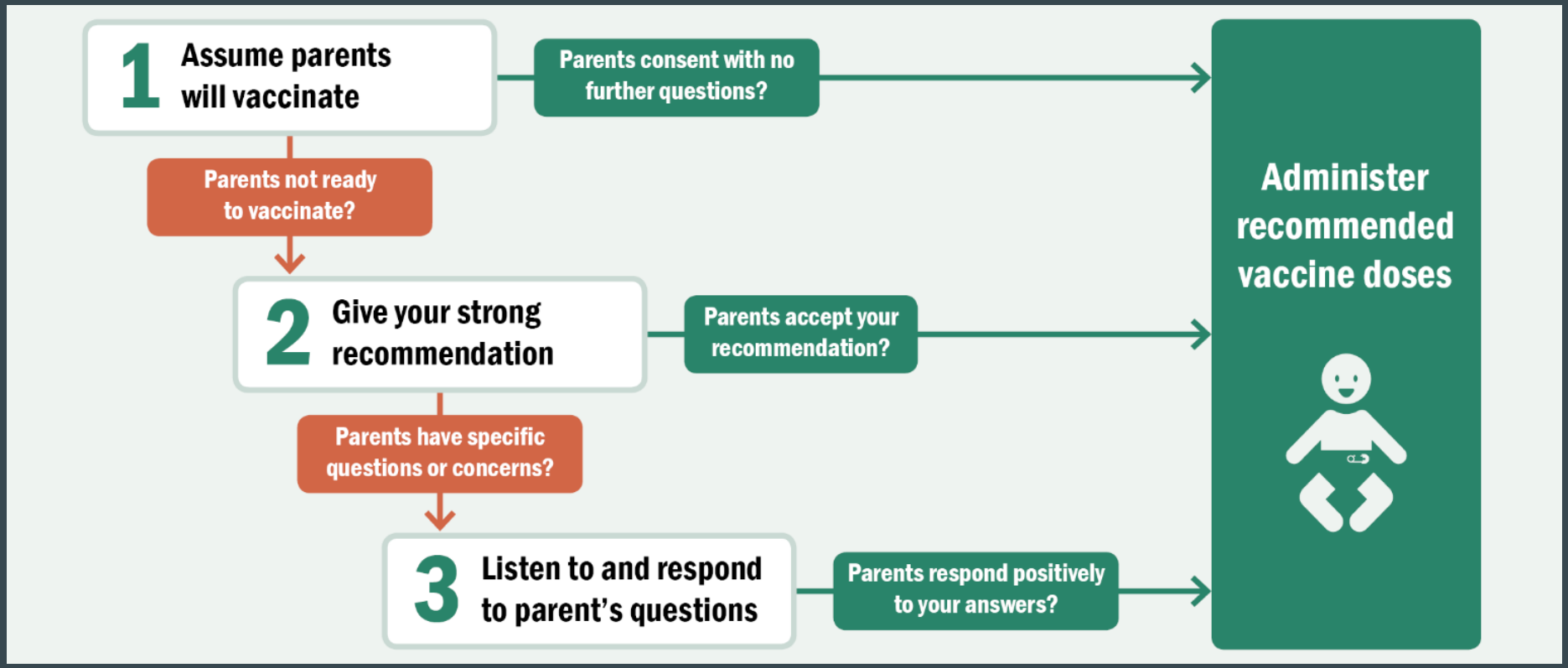
- **Don't correct misperceptions**: The instinctive response to vaccine-related misinformation is to provide correct information, but this can backfire – called the boomerang effect.
- **Focus on the disease:** Pivot the conversation to the disease itself
- **Use nudges/defaults**: apply presumptive communication
- Build trust through **empathy**



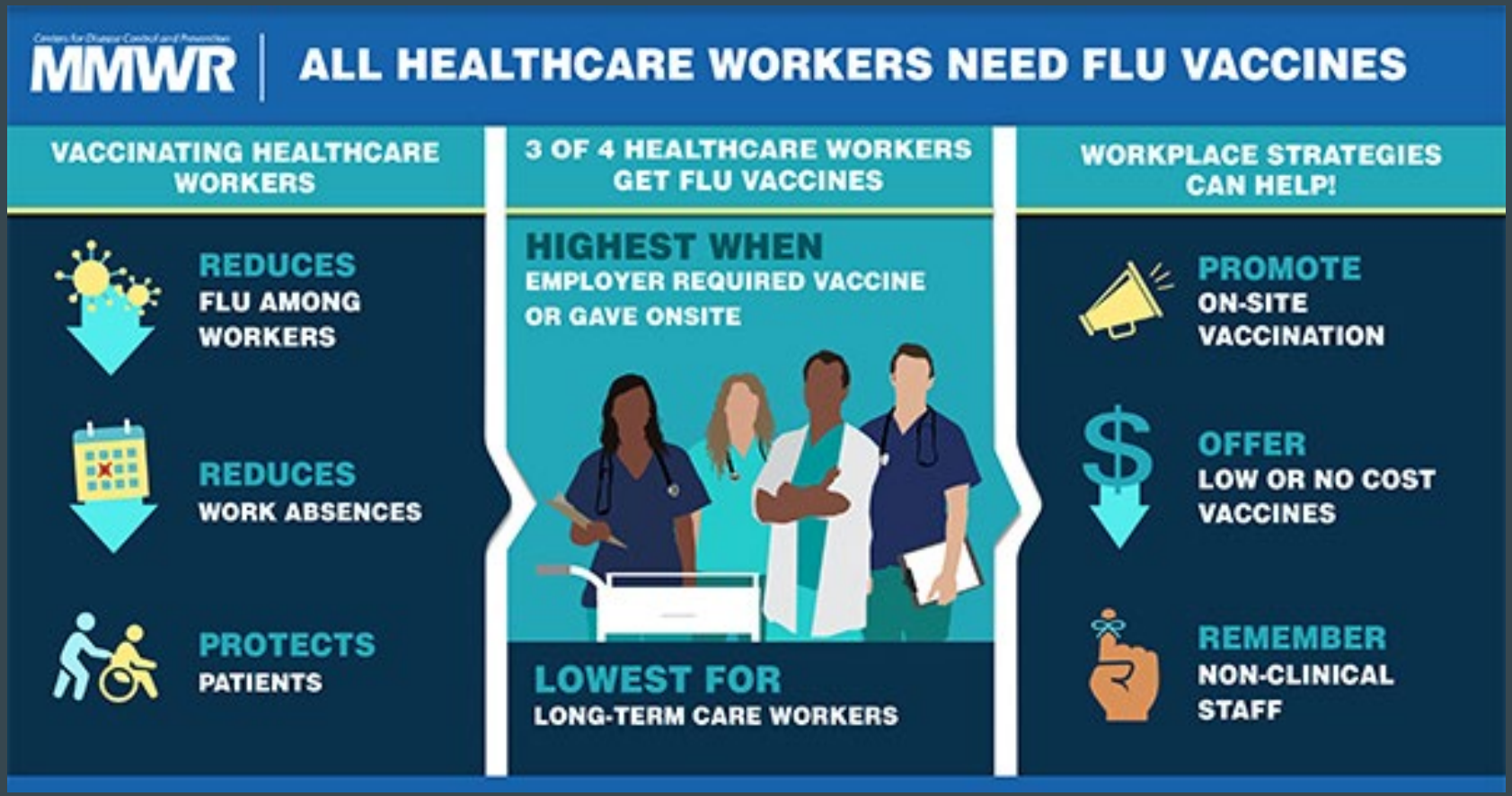
Omer, S. B., Amin, A. B., Limaye, R. J. (2017). Communicating about Vaccines in a "Post-Fact" World. *JAMA Pediatrics, 171* (10), 929-930.
Cook, J., Lewandowsky, S., & Ecker, U. K. (2017). Neutralizing misinformation through inoculation: Exposing misleading argumentation techniques reduces their influence. *PloS one*, *12*(5).

What communication appeals can help in reducing disparities?

Nudges/defaults



Nudges/defaults



Communicate to the benefit of the community

- Effective messages should convey the desired behavior is not just an individual choice, but important for the public good
- #stayhomesavelives #flattenthecurve
- Invoke the risk that by not engaging in the desired behavior you are putting people you know in the community at risk

Appeal to aspirational norms

Make the ask unambiguous, concise, and uncategorical

- "Clean after yourself" - what is the problem with this ask?
- Instead: "do not leave dirty dishes in the sink"

Appeal to patriotism

Thank you!

rlimaye@jhu.edu

Appendix

Resources and Links

Maryland
DEPARTMENT OF HEALTH

Current Vaccines

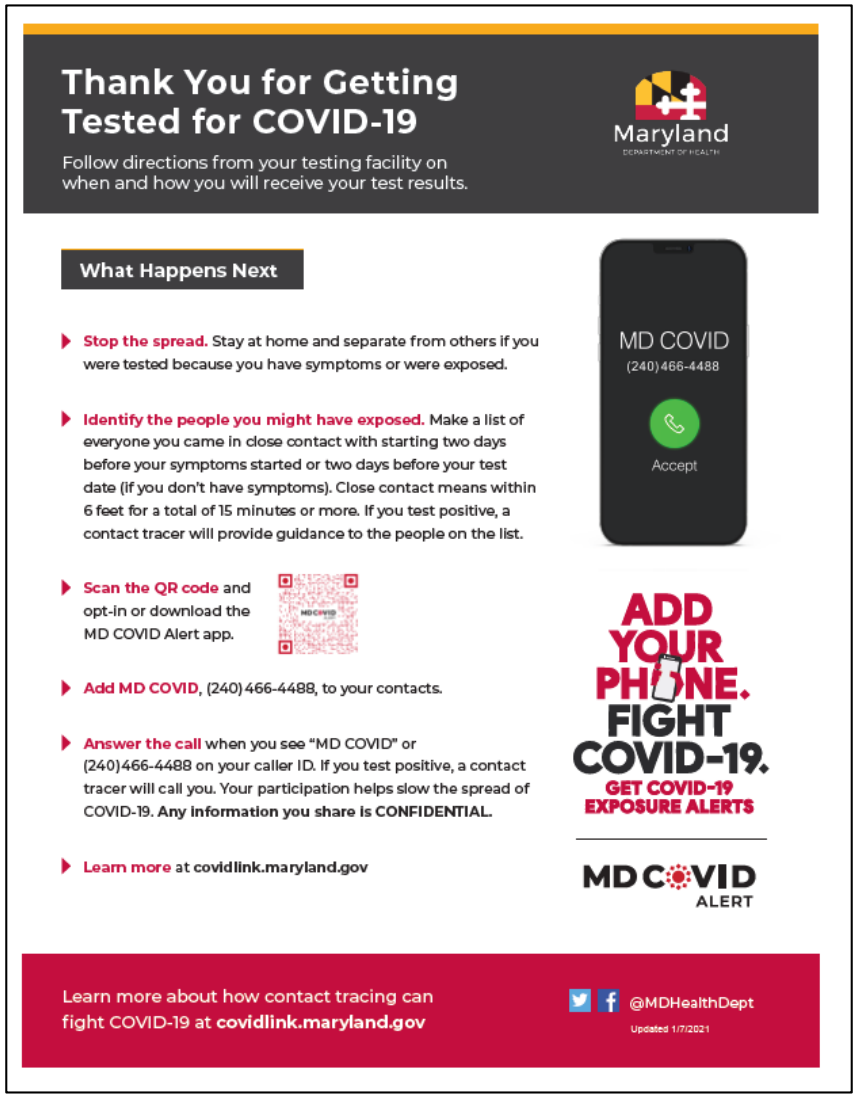
	BIONTECH Pfizer	moderna™ messenger therapeutics
Schedule	• Two dose regimen • 17-21 days apart (can extend)	• Two dose regimen • 28 days apart (can extend)
Indications	• 16 years and older • Pregnant and lactating can be considered • Caution with those with h/o anaphylaxis	• 18 years and older • Pregnant 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



Monoclonal Infusion Sites

- Adventist–Takoma Park
- Atlantic General
- Baltimore Convention Center
- Hatzalah of Baltimore
- MedStar Health Southern Maryland
- Meritus Health
- TidalHealth Peninsula Regional
- UMPC
- New:
- Garrett Regional Memorial
- Upper Chesapeake Comprehensive Care Center
- Luminis Health @ Doctors and AAMC (2 sites)

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

Emerging Virus Variant

- Known as B.1.1.17
- Was first noticed in Britain. The number of B.1.1.17 cases have grown significantly there and in South Africa
- Has appeared in more than 30 countries, including the United States and Maryland
- B.1.1.17 variant seems to be between 10 percent and 60 percent more transmissible than the original virus

Maryland
DEPARTMENT OF HEALTH

Source: New York Times

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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**

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

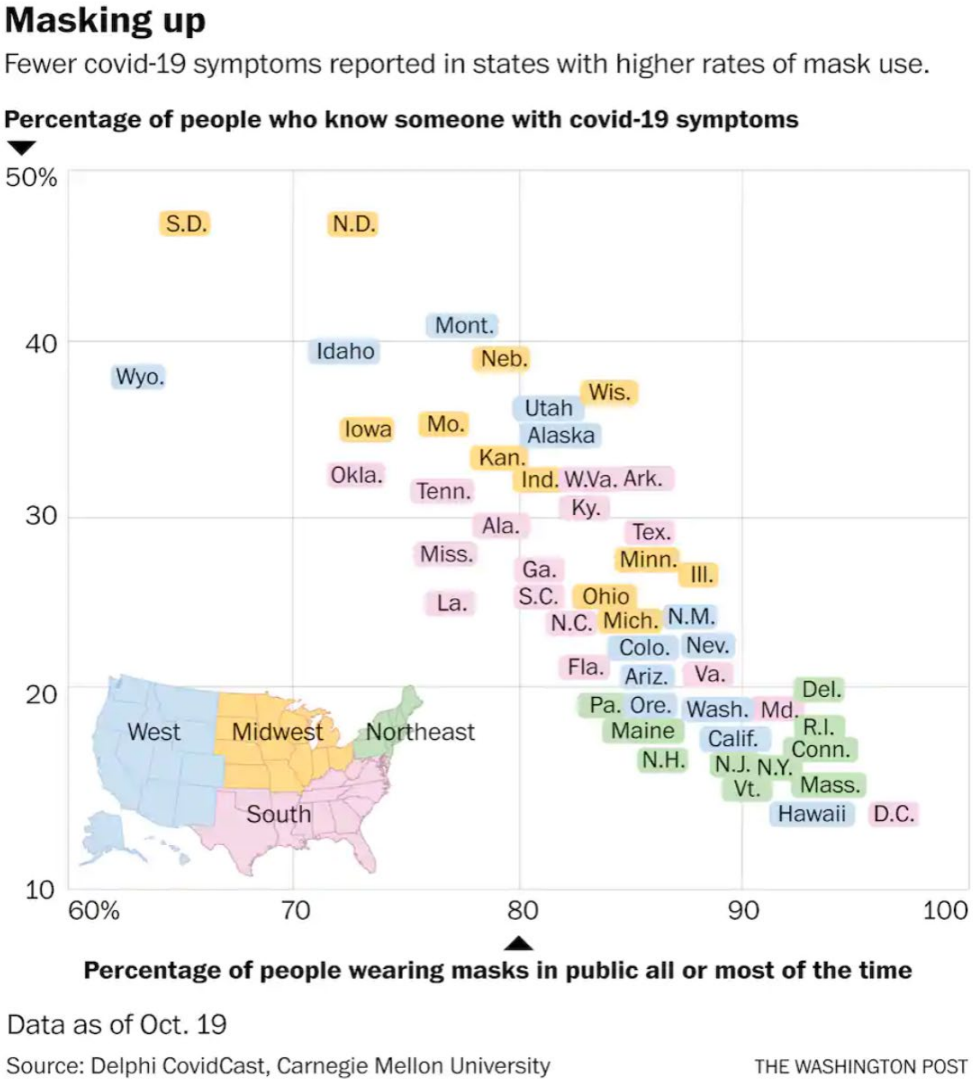
Maryland
DEPARTMENT OF HEALTH

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'

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

Staying Current - Sources

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland
DEPARTMENT OF HEALTH

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

Maryland DEPARTMENT OF HEALTH

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/)

Maryland
DEPARTMENT OF HEALTH