

**MEDICAL UNIVERSITY HOSPITAL AUTHORITY (MUHA) BOARD OF TRUSTEES  
DECEMBER 11, 2020 MEETING MINUTES**

The MUHA Board of Trustees convened Friday, December 11, 2020, with the following members present in person or via Webex, Dr. James Lemon; Chair; Mr. Charles Schulze, Vice Chair, Ms. Terri Barnes; Mr. Jim Battle; Mr. Bill Bingham; Dr. Melvin Brown; Dr. Fritz Butehorn; Dr. Guy Castles; Dr. Richard Christian; Dr. Paul Davis; Ms. Barbara Johnson-Williams; Dr. Murrell Smith; Mr. Michael Stavrinakis; Mr. Tom Stephenson; Dr. Bart Witherspoon. MUSC administrative officials present in person or via Webex: Dr. David Cole; Dr. Patrick Cawley; Annette Drachman; Lisa Montgomery; Dr. Raymond DuBois; Dr. Lisa Saladin; and Mark Sweatman.

**Item 1.**            **Call to Order.**

There being a quorum present, Chairman Lemon called the meeting to order.

**Item 2.**            **Roll Call.**

Mr. Mark Sweatman called the roll and announced that in compliance with the Freedom of Information Act, notice of meetings and agendas were furnished to all news media and persons requesting notification.

**Item 3.**            **Date of Next Meeting of the MUHA/MUSC Board of Trustees.**

The date of the next regular meeting of the MUHA/MUSC Board of Trustees is February 12, 2021.

**Item 4.**            **Approval of Meeting Minutes of December 11, 2020.**

Chairman Lemon called for a motion to approve the minutes.

Board Action: Vice-Chairman Schulze made a motion to approve, motion was seconded, voted on and unanimously carried.

**RECOMMENDATIONS AND INFORMATIONAL REPORT OF THE PRESIDENT**

**Item 5.**            **General Information Report of the President.**

Dr. David Cole, President, gave a brief update to the Board on the 2025 strategic plan, "OneMUSC." Dr. Cole also thanked the Board members, Michael Stavrinakis and Fritz Butehorn who participated and reported that the launch, originally scheduled for November, will now take place in a virtual format in either January or February. Dr. Cole also informed the board that his regular President's Report was posted in BoardEffect for information.

Dr. Cole, called on Dr. Cawley, who introduced Dr. Danielle Scheurer, Chief Quality Officer, MUSC Health, and Dr. David Zaas, CEO, MUSC Health-Charleston Division, who gave an update on COVID-19. Due to the amount of detailed information included in this report, their attached presentation will serve as the minutes for this agenda item.

Board Action: Received as information.

**Item 6.**            **Other Committee Business.**

None.

**AUTHORITY OPERATIONS, QUALITY AND FINANCE COMMITTEE. CHAIR: DR. MURRELL SMITH, SR.**

**Item 7.**            **MUHA Status Report.**

Dr. Patrick Cawley, CEO MUSC Health, gave an update on FY21 goal performance year-to-date and Dr. Danielle Scheurer, Chief Quality Officer, MUSC Health, gave an update on Quality wins and scorecards; Baldrige status and an update on recent HAC and Readmission penalties.

Board Action: Received as information.

**Item 8.**            **Request for Certificate of Need (CON).**

Dr. Patrick Cawley, CEO, MUSC Health requested approval for MUHA to submit a Certificate of Need application for an outpatient vascular lab to in Charleston County.

Board Action: Dr. Smith moved for approval, motion was seconded, voted on and unanimously carried.

**Item 9.**            **MUHA Financial Report.**

Ms. Lisa Goodlett, Chief Financial Officer, MUSC Health, gave an update on the financial performance as of October 31, 2020, for MUHA Consolidated and the Charleston, Lancaster and Florence markets.

Board Action: Received as information.

**Item 10.**           **Capital Reprioritization Request.**

Ms. Lisa Goodlett, Chief Financial Officer, MUSC Health, requested approval to move forward with the purchase \$1.775M of additional investment and equipment for the Consolidated Services Center due to additional ambulatory surgeries opening and to enable expansion of operations. These funds would be covered by delaying the renovations of the sleep lab of \$850,000 and the ART ECRP for \$925,000.

Board Action: Dr. Smith moved for approval, motion was seconded, voted on and unanimously carried.

**Item 11.**           **Legislative Update.**

Report deferred.

**Item 12.**           **MUSC Physicians Update.**

Dr. Gene Hong, Chief Physician Executive, MUSC Physicians, requested approval of the purchase of the Epic Bones Module with a total financial impact of \$89K with capital costs of \$31K to be paid in FY21 and \$35K in FY22; and \$23K in operational costs to be paid in FY22.

Board Action: Dr. Smith moved for approval, motion was seconded, voted on and unanimously carried.

**Item 13.**           **Other Committee Business.**   None.

**MUHA AND MUSC PHYSICAL FACILITIES COMMITTEE. CHAIR: MR. BILL BINGHAM**

**Item 14.**      **Major Projects Status Update.**

Mr. Tom Crawford, Chief Operating Officer, MUSC Health, gave an update on the following major projects: West Ashley Medical Pavilion Phase II; Chuck Dawley Medical Park; MUSC Health Nexton Medical Park; MUSC Health at Beaufort Memorial Okatie Medical Pavilion; Sea Islands Free-Standing Emergency Department; and the MUSC Williamsburg/Lake City Hospital;

Board Action: Received as information.

**Item 15.**      **MUHA Project Charleston Public Works Easement for Approval.**

Mr. Brad Taylor, Chief Facilities Officer, requested approval of the MUHA Project Charleston Public Works Easement for providing permanent easement for construction of sewer lines in the Cherry and Cannon Street area of the Charleston Peninsula for connection of surrounding sewer lines necessary to serve the Charleston Peninsula.

Board Action: Mr. Bingham moved for approval; motion was seconded, voted on and unanimously carried.

**Item 16.**      **MUSC Ehrhardt Street Tunnel Easement for Information.**

Mr. Brad Taylor, Chief Facilities Officer, presented for information on the planned MUSC Ehrhardt Street Tunnel Easement. Action on this item was deferred until a later date.

Board Action: Received as information.

**Item 17.**      **Water Mitigation Planning Part 2.**

Mr. Brad Taylor, Chief Facilities Officer, gave an update on MUSC's flood control strategies which includes the Dutch dialogue strategies. He discussed of slow, store, and drain strategies including raising critical campus infrastructures above flood stage and other barrier protection and control methods including the installation of flood gates for ground floor protection and other water mitigation and diversion products. The Shawn Jenkins Children's Hospital's water mitigation features include an elevated structure and utilities; flood gates; and a hurricane resistant building enclosure. Mr. Taylor also discussed standard operating procedures of water mitigation when used in emergency preparedness and concluded his presentation with a brief report on future projects included including the City of Charleston Erhardt Vortex Cistern-Ehrhardt Flood Control and plans for the elevated campus walkway.

Board Action: Received as information.

**Item 18.**      **Other Committee Business.**

None.

**AUDIT COMMITTEE. CHAIR: THOMAS L. STEPHENSON, ESQ.**

**Item 19.**      **KPMG Exit Conference.**

Ms. Jennifer Hall, Partner with KPMG, presented the results of the FY20 financial statements

external audit. Ms. Hall discussed the audit approach which included patient receivables valuation allowance; net estimated third party reimbursement settlements; pension, post-retirement and self-insurance liabilities; valuation of derivatives; and high-volume transactions classes. Ms. Hall mentioned that due to COVID, the audit teams worked in a fully remote capacity. She reported no unadjusted audit misstatements for MUSC; MUHA and MUSC each had two which Ms. Hall discussed with the Board. She concluded her report with a summary of the audit results required communications and other matters.

Board Action: Received as information.

**Item 20.**      **Strategic Risk Assessment Update.**

Ms. Reece Smith, Director of Strategic Risk Management, provided an update to the Board. She defined risk as an event or circumstance that could prevent the institutions from reaching its goals and objectives. Examples of harm include financial; physical; reputational; legal and regulatory. She gave an overview of the processes for identifying, evaluating, controlling, and monitoring enterprise level risks. Ms. Smith reviewed in detail the list of FY2021 Industry Risks. She concluded her presentation with an ERM Win on Adverse Event Communication / Business Interruption which was identified as an enterprise risk in MUSC's initial ERM cycle.

Board Action: Received as information.

**Item 21.**      **Report of the Office of Internal Audit.**

Mr. Stephenson reported that Susan Barnhart, Director of Internal Audit, shared results of recent audits conducted by her office and she would be glad to answer any questions.

Board Action: Received as information.

**Item 22.**      **Other Committee Business.**

None.

**OTHER BUSINESS FOR THE BOARD OF TRUSTEES:**

**Item 23.**      **Approval of Consent Agenda.**

Approval of the Consent Agenda was requested.

Board Action: Chairman Lemon moved for approval; motion was seconded, voted on and unanimously carried.

**Item 24.**      **Executive Session.**

Mr. Jim Battle made a motion for the Board to go into closed session to discuss the following:

- The employment or appointment of an employee or student;
- Negotiation of pending contractual matters related to expansion of clinical services and possible sale or purchase of real property; and
- Receipt of legal advice concerning liabilities and claims, or other matters covered by the attorney/client privilege.

Board Action: The motion made by Mr. Battle was seconded, voted on and unanimously carried. Chairman Lemon stated that the board would move into closed session immediately following the end of the MUSC Committee presentations.

**Item 25. New Business for the Board of Trustees.**

None.

**Item 26. Report from the Chairman.**

None.

**Item 26.1 Appointments, Reappointments and Delineation of Privileges (Consent Item).**

An updated list of appointments, reappointments and delineation of privileges to the medical staff was presented for approval.

Board Action: Dr. Smith moved for approval; motion was seconded, voted on and unanimously carried.

**Item 27. Medical Executive Committee (MEC) Minutes.**

MEC minutes from July, August, September, and October 2020 were presented for information.

Action: Received as information.

**Item 28. Medical Center Contracts and Agreements (Consent Item).**

Contracts and agreements since the October Board meeting were presented for information.

Board Action: Received as information.

**Item 29. MUHA and MUSC Active Projects >\$250,000 (Consent item).**

MUHA and MUSC active projects exceeding \$250,000 were presented for information.

Board Action: Received as information.

**Item 28. MUSC Facilities Contracts Awarded (Consent item).**

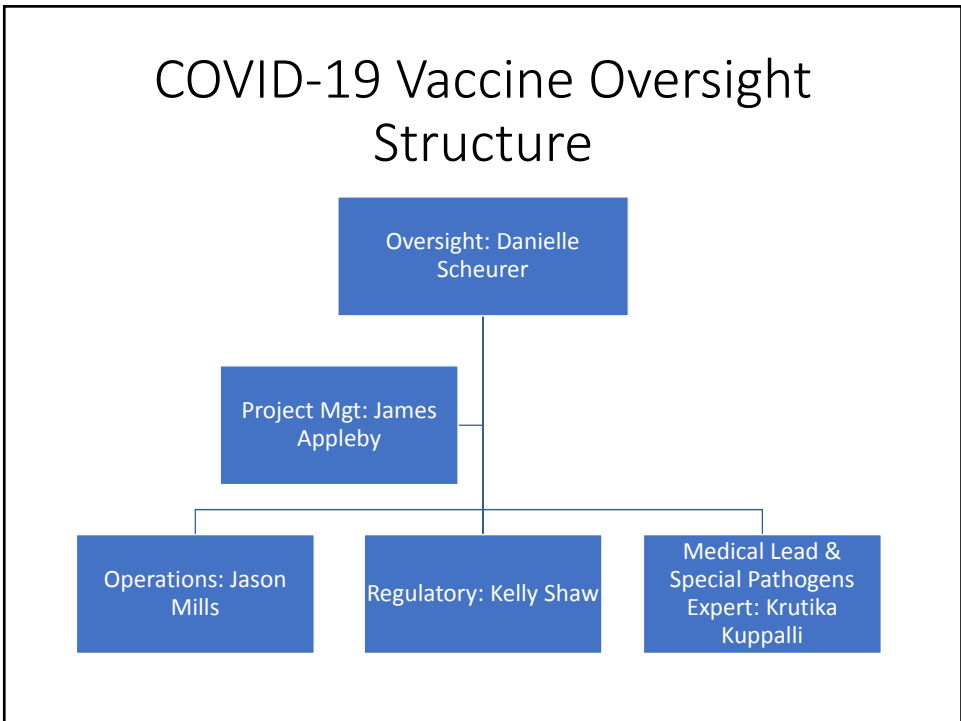
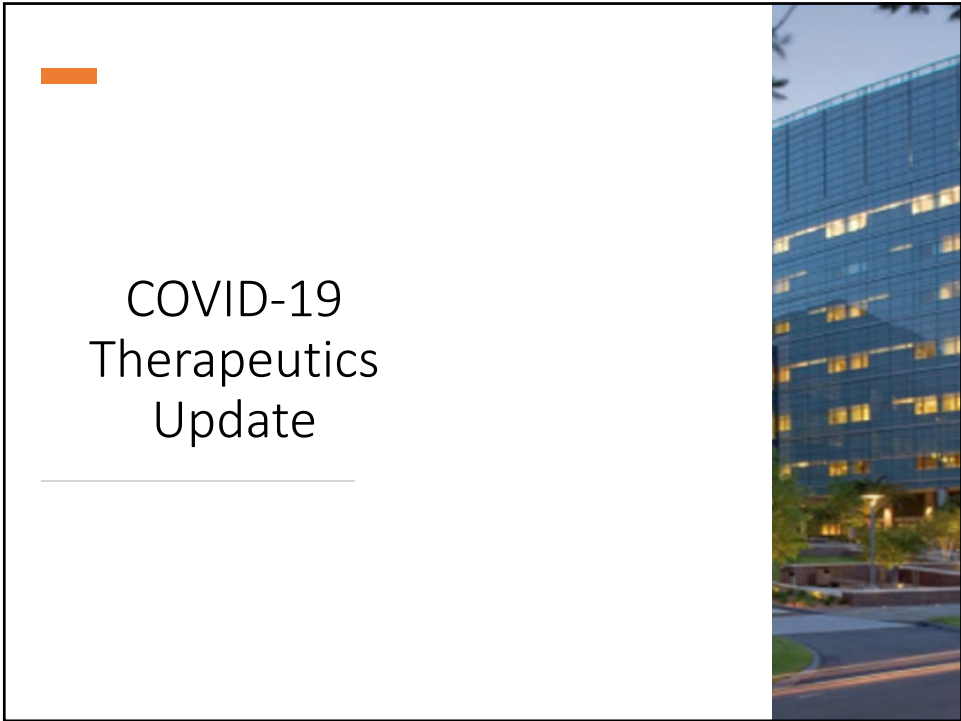
MUSC Facilities contracts awarded were presented for information.

Board Action: Received as information.

There being no further business, the Hospital Authority Board of Trustees meeting adjourned and the University Board of Trustees meeting convened.

Respectfully submitted,

*Mark C. Sweatman, Secretary*



## COVID-19 Vaccines

- 238 vaccines are in development
- 38 are in clinical testing
- 8 in phase 3 trials

Under Regulatory Review

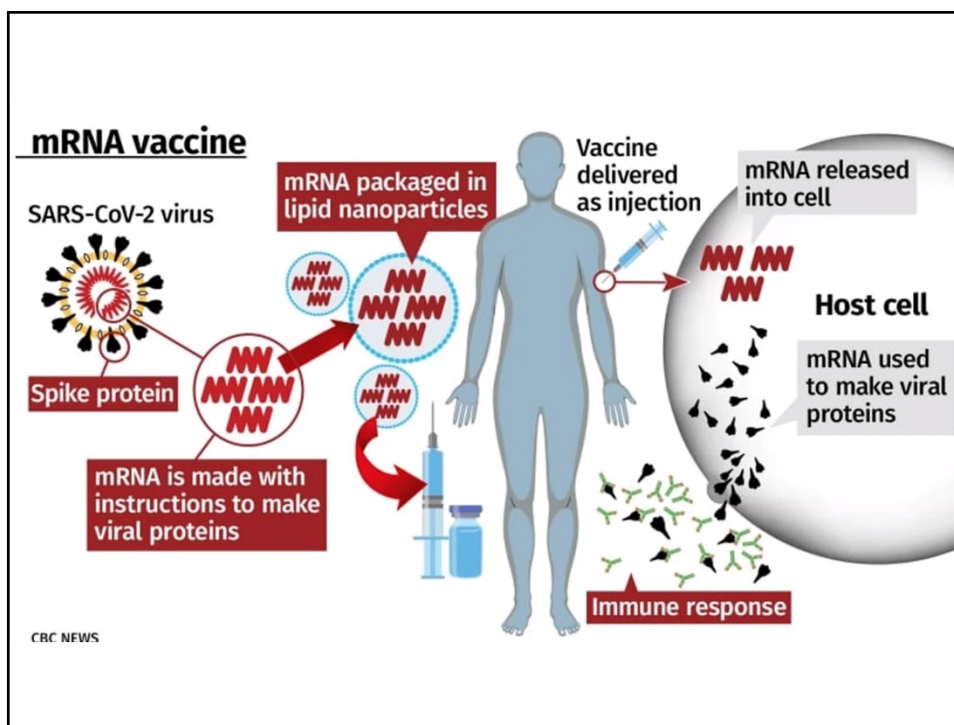
- Pfizer/BioNTech
- Moderna

} mRNA vaccines

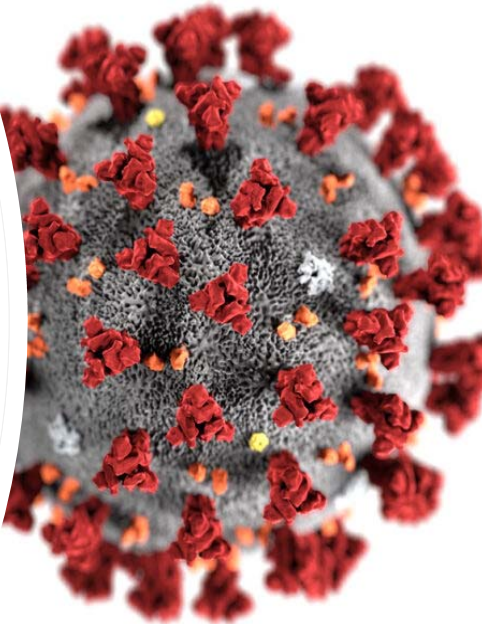
Completing Phase 3 Clinical Trials

- Astra Zeneca
- Johnson and Johnson

} Vector mediated vaccines

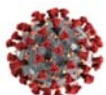


## Pfizer BioNTech Vaccine Data



- mRNA Vaccine
- 2 doses separated by 3 weeks (days 19-23)
- Inclusion: Age > 12 and non-pregnant
- Enrolled 43,661 and 41,135 received 2 doses of vaccine
- 95% effective against COVID-19 7 days after 2nd dose
- Vaccine efficacy based on 170 cases of COVID-19
  - 162 cases of COVID-19 in placebo group
  - 8 cases in the vaccine group
  - Efficacy consistent across age, gender, race, ethnicity, demographics
  - Efficacy in adults > 65 was over 94%
- 10 cases of severe COVID-19
  - 9 in placebo arm

## Pfizer BioNTech Vaccine Data

Study Population	Reactogenicity
<ul style="list-style-type: none"> <li>• 42% of global participants and 30% US participants have racially and ethnically diverse backgrounds</li> <li>• 41% of global participants age 56-85</li> <li>• 45% of US participants age 56-85</li> <li>• 150 clinical trial sites</li> <li>• US, Germany, Turkey, South Africa, Brazil, Argentina</li> </ul>	 <ul style="list-style-type: none"> <li>• No serious safety concerns</li> <li>• Fatigue</li> <li>• Headache</li> <li>• Myalgias</li> <li>• Arthralgia</li> <li>• Injection Site pain</li> <li>• These symptoms are very common</li> <li>• Usually occur within a day after the 2<sup>nd</sup> dose</li> <li>• Usually only last 1-2 days</li> </ul>



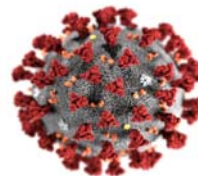
## Pfizer BioNTech Vaccine

### Storage

- Requires Ultracold storage
  - (-70°C +/- 10 °C)
- Will be shipped in Pfizer thermal shippers
- Will be GPS enabled and allow for storage x 15 days
- Once at point of use can be stored at 2 – 8 °C for 5 days
- Once reconstituted will last for 6 hours

### Looking Ahead

- Approved by UK 12/2/2020
- FDA for EUA 12/10/2020
- Will continue to collect efficacy and safety for 2 more years
- 50 million doses in 2020
- 1.3 billion doses by end of 2021



moderna™

messenger therapeutics

- mRNA vaccine
- 2 doses separated by 28 days
- Stored “regular” freezer (-20°C)
- Fridge up to 30 days
- EUA expected December 17, 2020

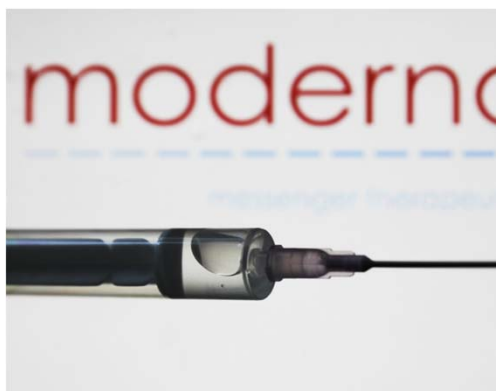
## Moderna Vaccine Data

- In collaboration with NIAID enrolled > 30,000 participants
- Primary endpoint based on analysis of COVID-19 cases starting two weeks following second dose of vaccine showed efficacy of 94.5%
- First interim analysis based on 95 cases
  - 90 cases in placebo
  - 5 cases in vaccine
- 30 cases of severe COVID-19 in placebo group and none in vaccine group
- Secondary endpoint analyzed severe cases of COVID-19
  - 11 cases (all in placebo arm)
- 95 cases of COVID-19
  - 15 in adults > 65 years old
  - 20 in participants from diverse communities

Vaccine efficacy of 94.5%



## Moderna Vaccine: Reactogenicity



- Majority of adverse events were mild or moderate
- Adverse events included
  - After the 1st dose:
    - Injection site pain (2.7%)
  - After the 2<sup>nd</sup> dose:
    - Fatigue (9.7%)
    - Myalgia (8.9%)
    - Arthralgia (5.2%)
    - Headache (4.5%)
    - Pain (4.1%)
    - Erythema/Redness at Injection site (2.0%)

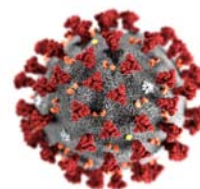
## Moderna Vaccine: Data

### Storage

- Stable at -20 °C for up to 6 months
- Stable at 2-8 °C (refrigerated) for 30 days
- Stable at room temperature for up to 12 hours
- Beneficial for sites that have readily available pharmaceutical freezers and refrigerators

### Looking Ahead

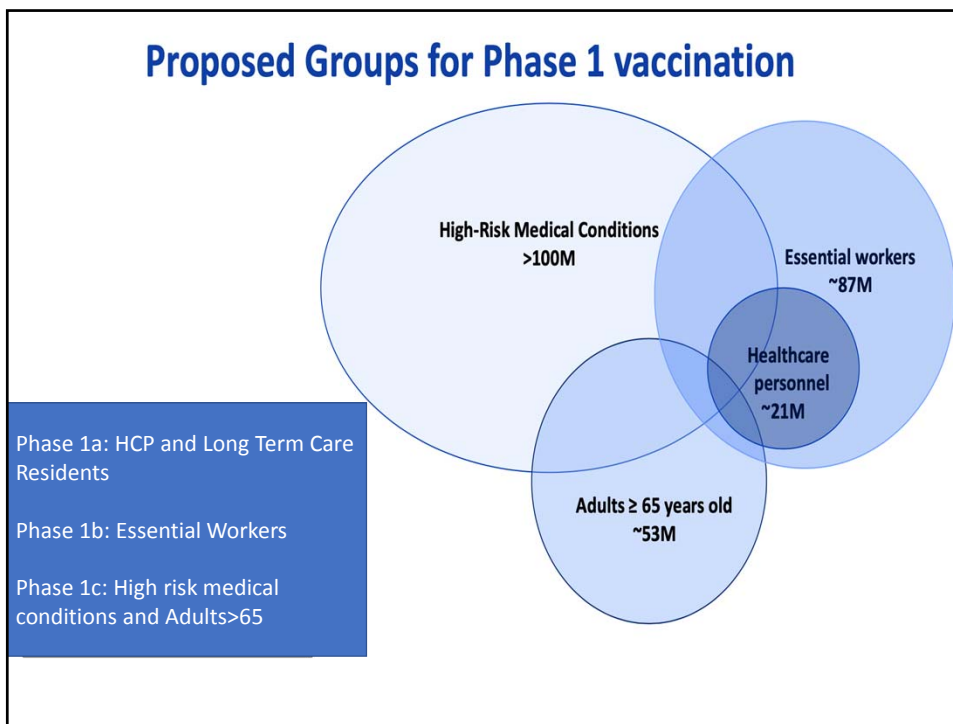
- FDA for EUA 12/17/2020
- Will continue to collect efficacy and safety for 2 more years
- 15 million doses in 2020
- 500 million – 1 billion doses in 2021



## Ethical Principles of Vaccine Allocation

- CDC-ACIP published ethical principles for vaccine allocation
  1. Maximize benefits and minimize harms
  2. Promote justice
  3. Mitigate health inequities
  4. Promote transparency

[https://www.cdc.gov/mmwr/volumes/69/wr/mm6947e3.htm?s\\_cid=mm6947e3\\_e&ACSTrackingID=USCDC\\_921-DM43026&ACSTrackingLabel=MMWR%20Early%20Release%20-%20vol.%2069%2C%20November%2023%2C%202020&deliveryName=USCDC\\_921-DM43026](https://www.cdc.gov/mmwr/volumes/69/wr/mm6947e3.htm?s_cid=mm6947e3_e&ACSTrackingID=USCDC_921-DM43026&ACSTrackingLabel=MMWR%20Early%20Release%20-%20vol.%2069%2C%20November%2023%2C%202020&deliveryName=USCDC_921-DM43026)



### Proposed Groups for COVID-19 Phase 1 Vaccination

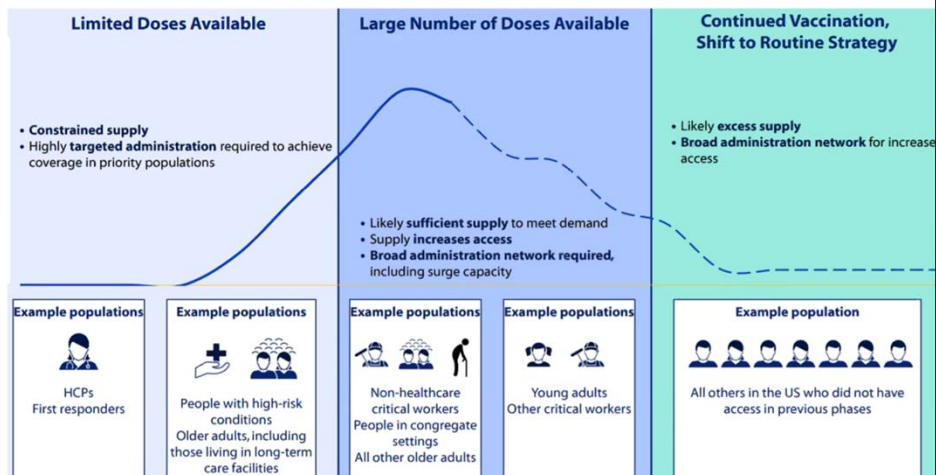
Healthcare Personnel <sup>1</sup> (~21million)	Essential Workers (non-healthcare) <sup>1</sup> (~87 million)	Adults with high -risk medical conditions <sup>2</sup> (>100 Million)	Adults age ≥65 years <sup>3</sup> (53 Million)
<b>Examples</b>			
Hospitals Long-term care facilities Outpatient Home health care Pharmacies EMS Public health	Food & Agriculture Food Service Transportation Education Energy Police Firefighters Manufacturing IT & Communication Water & Wastewater	Obesity Severe Obesity Diabetes COP Heart Condition Chronic kidney Cancer Smoking Solid Organ Transplant Sickle cell disease	Community Dwelling Congregate ~3M <sup>4</sup> -Skilled Nursing Facility (~1.3 M) -Assisted living Facilities (~0.8 M) -Residential care communities (~0.6 M) -HUD Senior Housing (~0.3M)

1. <https://www.cisa.gov/publication/guidance-essential-critical-infrastructure-workforce>  
2. [https://www.cdc.gov/coronavirus/2019-nCoV/need-extra-precautions/people-with-medical-conditions.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-nCoV%2Fneed-extra-precautions%2Fgroups-at-higher-risk.html](https://www.cdc.gov/coronavirus/2019-nCoV/need-extra-precautions/people-with-medical-conditions.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-nCoV%2Fneed-extra-precautions%2Fgroups-at-higher-risk.html)  
3. United States Census Bureau <https://www.census.gov/topics/population/older-ageing.html>  
4. Vital and Health Statistics, Series 3, Number 43 (cdc.gov)

## Proposed ACIP Phase 1 Sequence

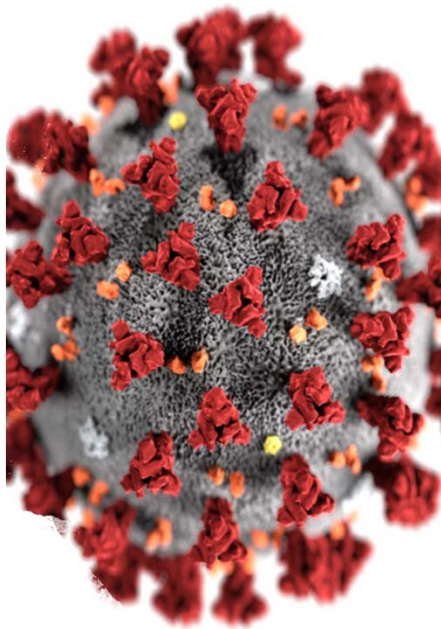
	<b>Phase 1c</b> Adults with high -risk medical conditions Adults 65+
	<b>Phase 1b</b> Essential workers (examples: Education Sector, Food & Agriculture, Utilities, Police, Firefighters, Corrections Officers, Transportation)
<b>Phase 1a</b> HCP LTCF residents	

## Distribution will adjust as volume of vaccine doses increases



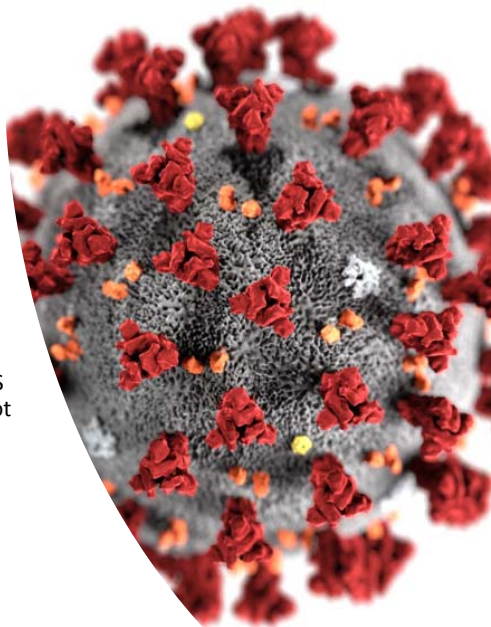
## Vaccine Allocation

- Coordinated by DHEC
- As early as December 10, 2020 after FDA meeting (likely arriving December 15)
- Administration locations will be drive thru testing sites and a few clinics in each MUSC Health division
- Phase 1a HCP will have to be scheduled to ensure criteria met (MyChart or scheduling)
- Vaccine not mandatory
- Vaccine at no cost
- Ethics will help if/when demand exceeds capacity
  - Wave 1: HCP who directly touch patients
  - Wave 2: HCP who work within 6 feet of patients
  - Wave 3: HCP essential to operations-functions of MUSC



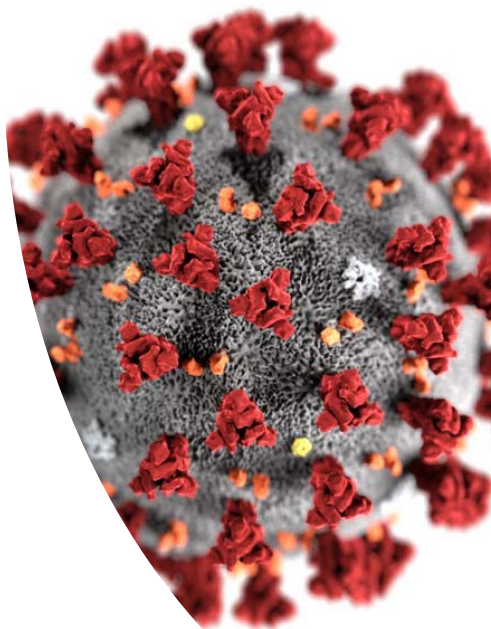
## Verification Account Management System (VAMS)

- 
- Platform for ordering and tracking vaccine
  - Providers (i.e. MUSC) will have to
    - Set up clinics in VAMS
    - Place request for vaccine in VAMS (for any number of doses; may not get requested volume; weekly allocations)
    - Report daily vaccine inventory numbers
    - Report administration → goes to the state registry (i.e. SIMON)



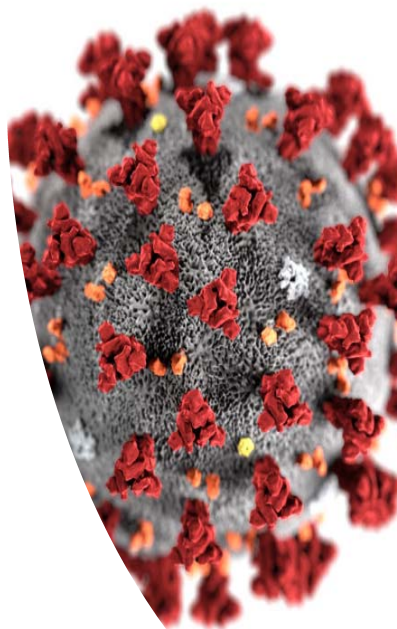
## Vaccine Hesitancy

- National survey data says ~50% of Americans are hesitant to receive Covid-19 vaccine
- MUSC survey (N=231)
  - 93% Very or somewhat confident in vaccine development process
  - 88% Very or somewhat confident that the vaccine is safe
  - 92% Very or somewhat confident the vaccine is effective
  - 61% Definitely will get vaccine once available
  - 78% Would like more information regarding vaccine



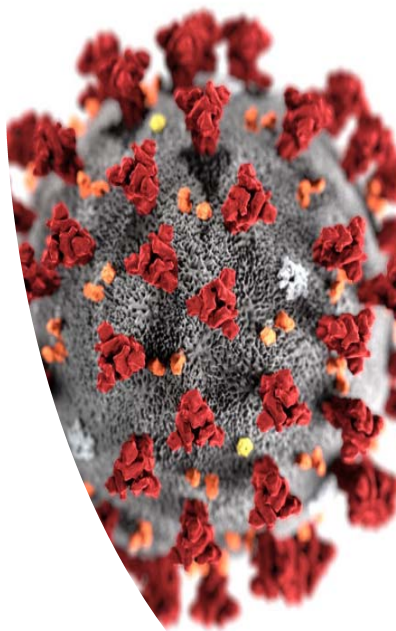
## Common FAQs

- Pregnancy and Lactation
  - Not included in trials, but highly recommended by Society of Maternal-Fetal Medicine
- Family member
  - Included in phase recommended by CDC
- Students
  - Included in Phase 1a if they directly see patients
  - Otherwise included in relevant subsequent phases



## Common FAQs

- Side effects
  - Most commonly 1-2 days after dose 2
  - Most commonly last 1-2 days
  - Leaders may consider staggering care team groups to avoid entire team side effects on a single day
  - Side effects are similar to influenza vaccine; most will not require missing work, but if concerned, could consider getting vaccine on day before a day off
  - Will need to take PTO



## Therapeutics

- **Inpatients**
  - Steroids
  - Anti-virals (remdisivir)
  - Convalescent plasma
- **Outpatients**
  - Monoclonal Antibody (Bamlanivimab /Regeneron)
- ***All therapeutics currently have very limited data to support use***





Resources

Overview

- <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>

FAQs

- <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>

MUSC Intranet site

- <https://www.musc.edu/medcenter/covid-19/vaccine/index.html>

Questions

- Danielle Scheurer ([scheured@musc.edu](mailto:scheured@musc.edu))
- Krutika Kuppalli ([kuppalli@musc.edu](mailto:kuppalli@musc.edu))

