# COVID-19: WHERE ARE WE NOW, WHERE ARE GOING, AND HOW TO COMMUNICATE THIS TO YOUR SCHOOL COMMUNITY

Ingrid T. Katz, MD, MHS Associate Faculty Director | Harvard Global Health Institute Associate Professor | Harvard Medical School Associate Physician | Brigham and Women's Hospital



# MA DEPT OF PUBLIC HEALTH: COVID DASHBOARD

#### Massachusetts Department of Public Health | COVID-19 Dashboard Trends: 7-day Averages Over Time

#### Navigation

Today's Overview

#### **Overview Trends**

COVID-19 Cases

COVID-19 Testing

Hospitalization

COVID-19 Deaths

Higher Ed & LTCF

Patient Breakdown

City and Town

Resources

Data Archive

Date Filter 3/1/2020 to 1/12/20..





For details on the definitions of each indicator please see the corresponding tab for that indicator. All data included in this dashboard are preliminary and subject to change. Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences and the Registry of Vital Records and Statistics; Created by the Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance and Informatics Services.



Released on: January 13, 2021 Data as of: January 12, 2021 Caution: recent data may be incomplete



## **HEALTH OUTCOMES FOR CHILDREN**



All data reported by state/local health departments are preliminary and subject to change: Analysis by American Academy of Pediatrics and Children's Hospital Associati

Source: American Academy of Pediatrics

- Children can become infected but become severely ill much less than adults
- Forward transmission from children: still uncertain
- Balance of child health outcomes:
  - Obesity, undernutrition
  - Mental health and substance use
  - Physical and emotional abuse
  - Academic and social/emotional development
- MA DESE (total school-associated cases, completeness not clear):
  - Dec 17-23: 0.53% of staff, 0.12% of students
  - Need additional data from DPH and DESE about in-school transmission



# **OVERVIEW OF VACCINES**

- Authorized for emergency use in US, EU, UK, Canada, more
- 2 doses, 4 weeks apart
- mRNA platform
- 94.1% efficacy
- Recommended for ages 18+
- Registered early Dec to begin trials for ages 12–17
- Common side effects: pain, swelling, redness in arm; chills, headache, tiredness in body

# • Authorized for emergency use in UK, Argentina, Mexico, India

- In Phase 2 and 3 trials
- 2 doses, 4 weeks apart
- Adenoviral platform
- 62% 90% efficacy depending on dose

### PFIZER-BIONTECH





- 2 doses, 3 weeks apart
- mRNA platform
- 95% efficacy
- Recommended for ages 16+ but began enrollment for ages 12+ in Oct
- Common side effects: pain, swelling, redness in arm; chills, headache, tiredness in body
- In Phase 3 trials
- 1 dose
- Adenoviral platform
- Efficacy unknown
- If approved, to be distributed in US, UK
- Interim data to be available end of Jan 2021

### **VACCINE DISTRIBUTION**

Biden Administration plans for immediate release of available covid vaccines

# "100m shots in the first 100 days"

- President Elect Joe Biden

Contrasts current distribution plan of guaranteed second dose

Biden/Harris Administration to combat COVID with <u>seven-point</u> <u>plan</u>





22 million doses distributed to states since December, under 33% have been administered

# MASSACHUSETTS COVID VACCINE DISTRIBUTION

#### CURRENTLY IN PHASE ONE

JAN 11TH, 2021: FIRST RESPONDERS BEGAN RECEIVING FIRST DOSE OF VACCINATIONS







**PHASE THREE** 

Vaccine available to general public

April - June

• TEACHERS BEGIN RECEIVING VACCINATIONS DURING PHASE TWO FROM FEBRUARY TO APRIL

- SIMILAR PRIORITY PLANS IN NH, ME
- PHASE 2 TBD IN CT, VT, RI



## **EQUITY CONSIDERATIONS**

In the US & MA:

• Black, Latinx & Indigenous communities: higher rates of

COVID-19 and severe illness – includes children and educators

#### In the US:

- BIPOC students less often have option for in-person school
- than white students

• When offered, choose in-person school less often than white families



Reducing risk of COVID-19 infection can facilitate a more balanced choice based on other factors





#### "Districts serving mostly students of color are more likely to start online"



Source: AP/Chalkbeat

# **INEQUITIES IN VACCINE DISTRIBUTION**



To combat inequities, many states are reserving vaccines for communities that have been disproportionately impacted by the pandemic

#### Tennessee

Committed to setting aside 5% of vaccine supply for areas with high scores on a **CDC** social vulnerability index

#### Massachusetts

To combat inequities, 20% additional vaccines allocated to communities that have experienced disproportionate COVID burden and high social vulnerability



#### California

Gov. Newsom vowed "because of the impact they have felt disproportionately" during the pandemic, officials are working to ensure communities of color are "disproportionately benefited"



# MASKS ON OR OFF?

#### CONTINUE TO WEAR MASKS!



No data showing vaccine prevents spread or transmission





Vaccine reduces COVID symptoms



Data indicates masking (and other mitigation strategies) dramatically reduce transmission



# SCREENING ASYMPTOMATIC STUDENTS & STAFF



Additional layer of protection



### **COMMUNICATING THIS TO YOUR SCHOOL COMMUNITY**

























































2

Ŏ

# Why are teenagers and kids usually less susceptible to COVID19 than adults?

Scientists don't know for sure yet, but they have a hypothesis

CELL

### - ACE2 RECEPTOR - WHERE THE VIRUS 'DOCKS'

# What does it mean that a vaccine is over 90% effective?



So, we currently know that the vaccine has an <u>efficacy</u> rate of over 90%

# • Efficacy is what we know from a clinical

# • Effectiveness is what we will know in a real world setting





# Is there a cure for COVID19?

Viruses are really hard to "cure" because they are not technically alive, but instead target the "machinery" inside human cells





On Friday, December 11, the U.S. Food and Drug Administration granted Emergency Use Authorization for Pfizer's COVID-19 vaccine. Now Pfizer can begin working with state governments to get the vaccine to the people!

# moderna

# But how do we decide who gets the vaccine first?

# BREAKOUT ROOMS: Think like a policy maker!



As a group, discuss who you think should get the COVID19 vaccine first: healthcare workers, first responders, the elderly or people with underlying conditions. Make sure are able to explain your choice!

# THANK YOU!



