



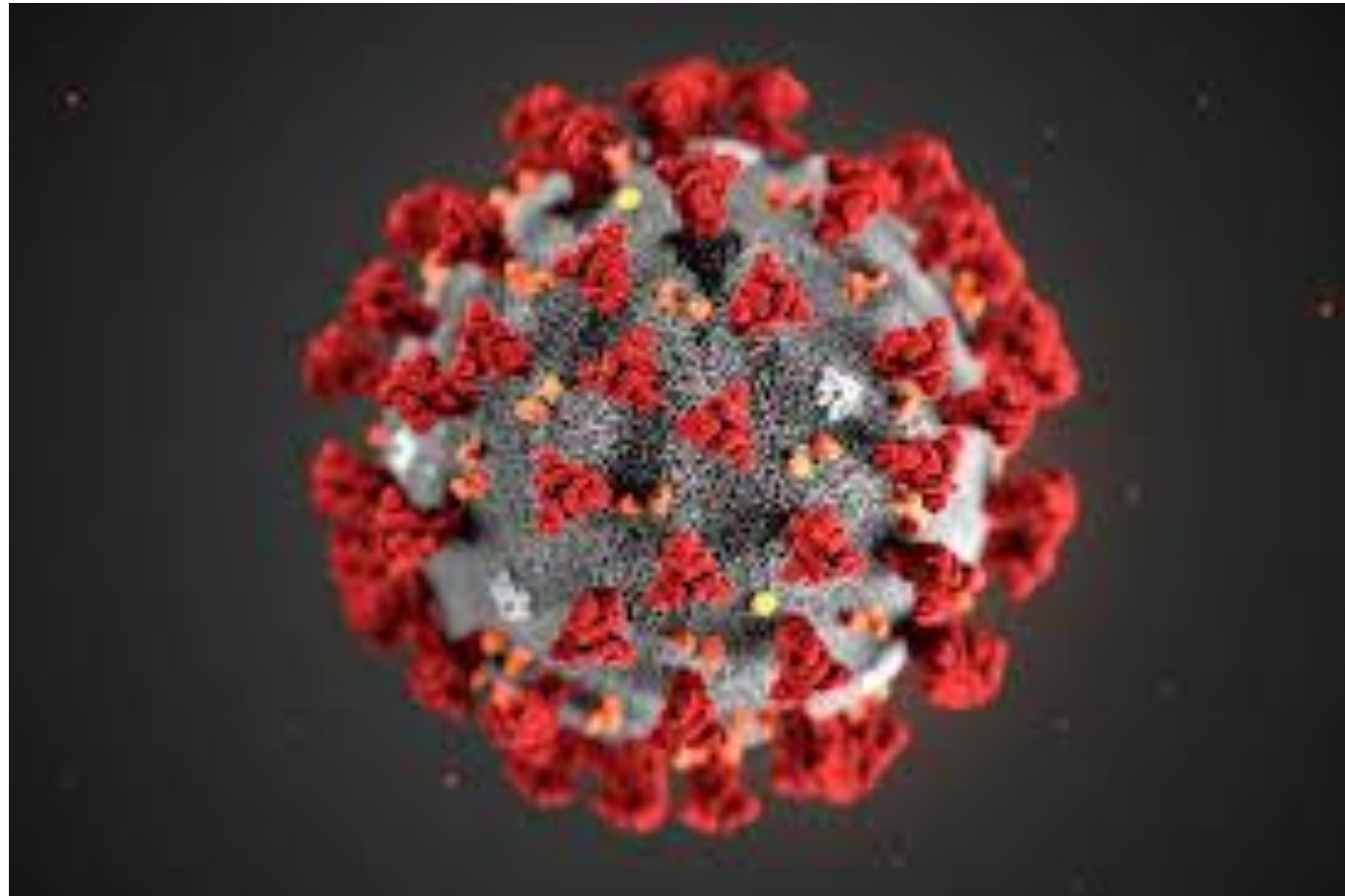
A value-based strategy to address COVID-19: the Cambridge Health Alliance approach

Janice John, PA-C MHCDS

Kirsten Meisinger, MD MHCDS

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So, this happened...



Friday March 6- Friday March 13, 2020

First case of known community
Spread

New awareness of the risk to staff
and other patients in our normal
model of care

Unseasonably warm weather, and
more than the usual number of cases
of the “flu”



Cambridge Health Alliance (CHA) is a public safety net healthcare system north of Boston that serves 120,000+ patients in its primary care panels.

CHA has two acute care hospitals, 13 primary care practices, three school-based health centers and a geriatrics program.



700,000 annual outpatient visits, including emergency and BH, and 10,000 hospitalizations (medical, surgical, psychiatric, obstetric, newborn care)

The Boston context



Boston is home to 18 hospitals including 14 world class teaching hospitals. According to a 2014 Conference of Boston Teaching Hospital (COBTH) report, these hospitals combined have 5,501 beds, produce 692,116 emergency department visits and 6,225,139 outpatient visits.

Robust public system with two major hospitals (Boston Medical Center and The Cambridge Hospital)
The city of Boston's 22 Community Health Centers make up almost half of the 53 community-based health centers available statewide. According to the Massachusetts League of Community Health Center's 2016 report, these Boston-based community health centers serve over 340,000 individuals annually with more than half of their patients identifying as racial or ethnic minorities

Who uses the public system?

29% reporting that they can be best helped in language other than English and 88% of whom report incomes that fall below 200% of the federal poverty line.

35.7% of their patients are insured through MassHealth/Medicaid, 8.2% are insured through Medicare, 10% have another form of public health insurance and 19.5% have no insurance.

In 2015, 96% of Boston residents had health insurance. There were **no significant differences by race/ ethnicity** in the percentage of the population without health insurance.

- Unemployed residents (16%) compared to employed residents (5%)
- Residents with household income under \$25,000 (6%) or \$25,000-\$49,000 (6%) compared to those with an income of \$50,000 or more (4%)
- Residents born outside of the United States (9%) compared to residents born in the United States (3%)

So where is the equity issue?

The percentage of adult *residents who were unable to afford a doctor* was higher for the following groups:





- Black (13%) and Latino (16%) residents compared with White residents (5%)
- Residents with less than a high school diploma (19%) or a high school diploma (10%) compared with residents with at least some college education (7%)
- Residents who were out of work (18%) compared with those who were employed (8%)
- **Poverty:** Residents living in households with an annual income of less than \$25,000 (15%) or \$25,000- \$49,999 (14%) compared with residents living in households with an annual income of \$50,000 or more (4%) • Residents living in BHA housing (14%), rental-assisted renters (17%), non-rental-assisted renters (10%), and those with other housing arrangements (12%) compared with homeowners (5%)
- Foreign-born residents who lived in the United States for 10 years or less (13%) and foreign-born residents who lived in the United States for over 10 years (14%) compared with residents who have always lived in the United States (7%)

Rationing care – remember those discussions?

“heads in beds” was the dominant strategy and groupthink was in the air
US federal funding has been centered around the number of hospitalizations, not the number treated in the community (CARES ACT)



COVID-19 CASES, HOSPITALIZATION, AND DEATH BY RACE/ETHNICITY

| FACTORS THAT INCREASE COMMUNITY SPREAD AND INDIVIDUAL RISK | |  CROWDED SITUATIONS |  CLOSE / PHYSICAL CONTACT |  ENCLOSED SPACE |  DURATION OF EXPOSURE |
|--|--|---|--|--|--|
| Rate ratios compared to White, Non-Hispanic Persons | American Indian or Alaska Native, Non-Hispanic persons | Asian, Non-Hispanic persons | Black or African American, Non-Hispanic persons | Hispanic or Latino persons | |
| CASES ¹ | 2.8x higher | 1.1x higher | 2.6x higher | 2.8x higher | |
| HOSPITALIZATION ² | 5.3x higher | 1.3x higher | 4.7x higher | 4.6x higher | |
| DEATH ³ | 1.4x higher | No Increase | 2.1x higher | 1.1x higher | |

Race and ethnicity are risk markers for other underlying conditions that impact health — including socioeconomic status, access to health care, and increased exposure to the virus due to occupation (e.g., frontline, essential, and critical infrastructure workers).

ACTIONS TO REDUCE RISK OF COVID-19



WEARING A MASK



SOCIAL DISTANCING (6 FT GOAL)



HAND HYGIENE



CLEANING AND DISINFECTION



¹ Data source: COVID-19 case-level data reported by state and territorial jurisdictions. Case-level data include about 80% of total reported cases. Numbers are unadjusted rate ratios.

² Data source: COVID-NET (<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>, accessed 08/06/20). Numbers are ratios of age-adjusted rates.

³ Data source: NCHS Provisional Death Counts (<https://www.cdc.gov/nchs/nvss/vsrr/COVID19/index.htm>, accessed 08/06/20). Numbers are unadjusted rate ratios.

cdc.gov/coronavirus

Principles

PPE optimization

Minimize risk to staff and patients

Leverage Resources for “the right care at the right time...”

Role Flexibility - we are all doing new work

The necessary discipline of being resource limited

A Comprehensive Approach

Telemedicine

Strategic plan for In-Person
High Value Care (outreach)

- chronic disease management
- pediatric immunizations/newborn care

Community Based Covid
Care

TELEVISITS - Overview

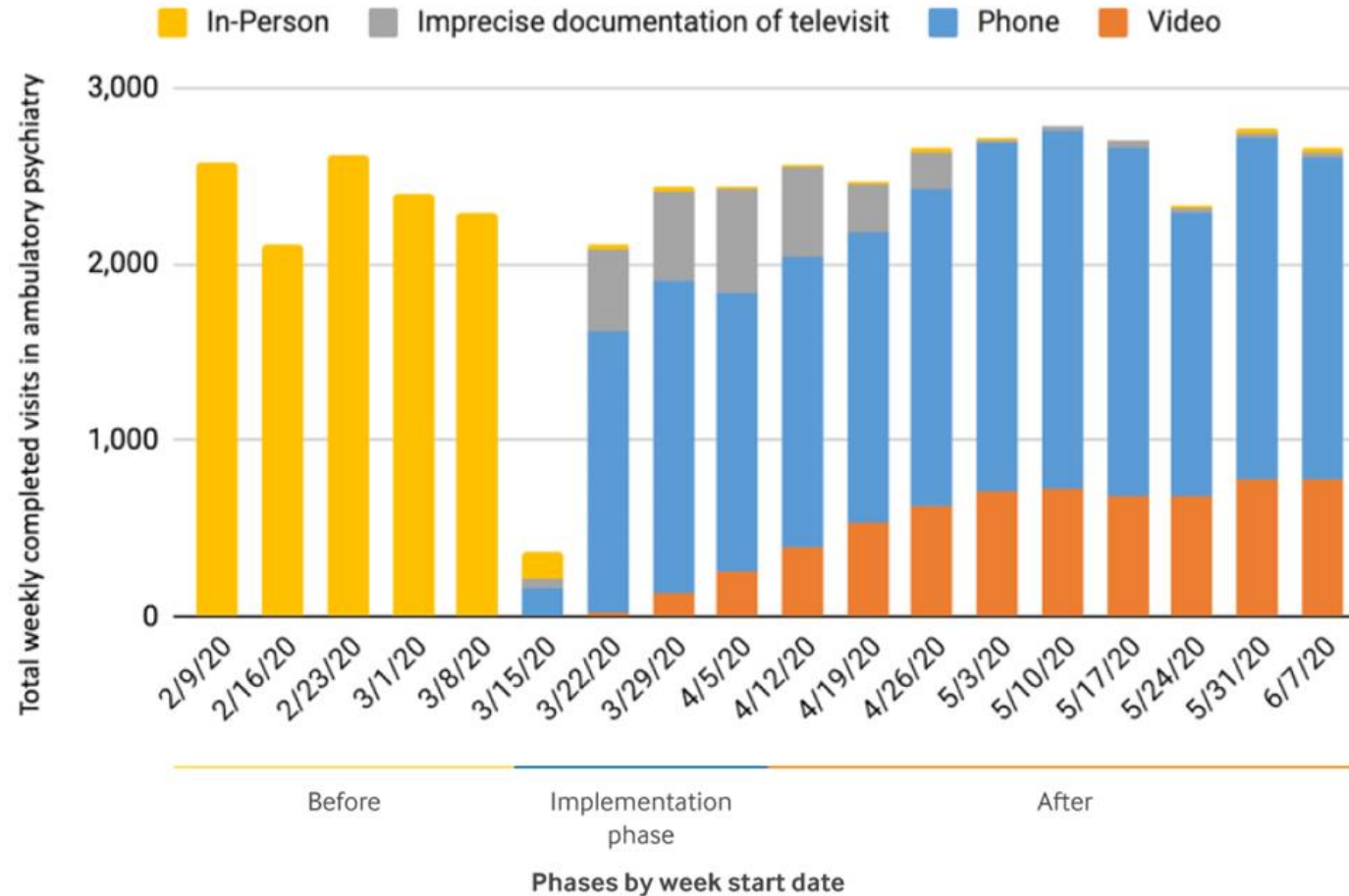
- **Goal** – Reduce the risk of COVID-19 infection posed by coming to a CHA Primary Care Practice, by offering patients who have in-person visits booked or need new appointments the option of having a virtual “visit” or “TELEVISIT”. TELEVISITS mimic office visits.
- Key features of the new process:
 1. Rebooking: Patients appropriate for ‘televisits’ are identified by provider and communicated to the team using a specific colored dot on the provider schedule – there are VERY FEW face to face visits recommended
 2. Patients calling for new appointments are defaulted to televisits using the guidance and protocols detailed below (in addition to usual triage processes)
 3. Staff and providers use the new visit type called “TELEVISIT” in scheduling and documentation ***staff should select TELEVISIT or convert the current appt to TELEVISIT instead of canceling and rescheduling (you can go to the appointment on the Appt Desk (or DAR) and click Change Appointment. One of the items you can change is the Visit Type)**
 4. Patients are “arrived” **and registered by the staff prior to the appointment time, which will enable the clinical documentation **** Providers use TELEVISIT Template

**Documentation in red are key operational workflows*

Total Weekly Completed Visits Before and After Transition to Telepsychiatry at Cambridge Health Alliance

This graph displays total weekly visit volumes before, during, and after the transition to telepsychiatry at Cambridge Health Alliance.

Lean workflow redesign took place between March 27 and March 31



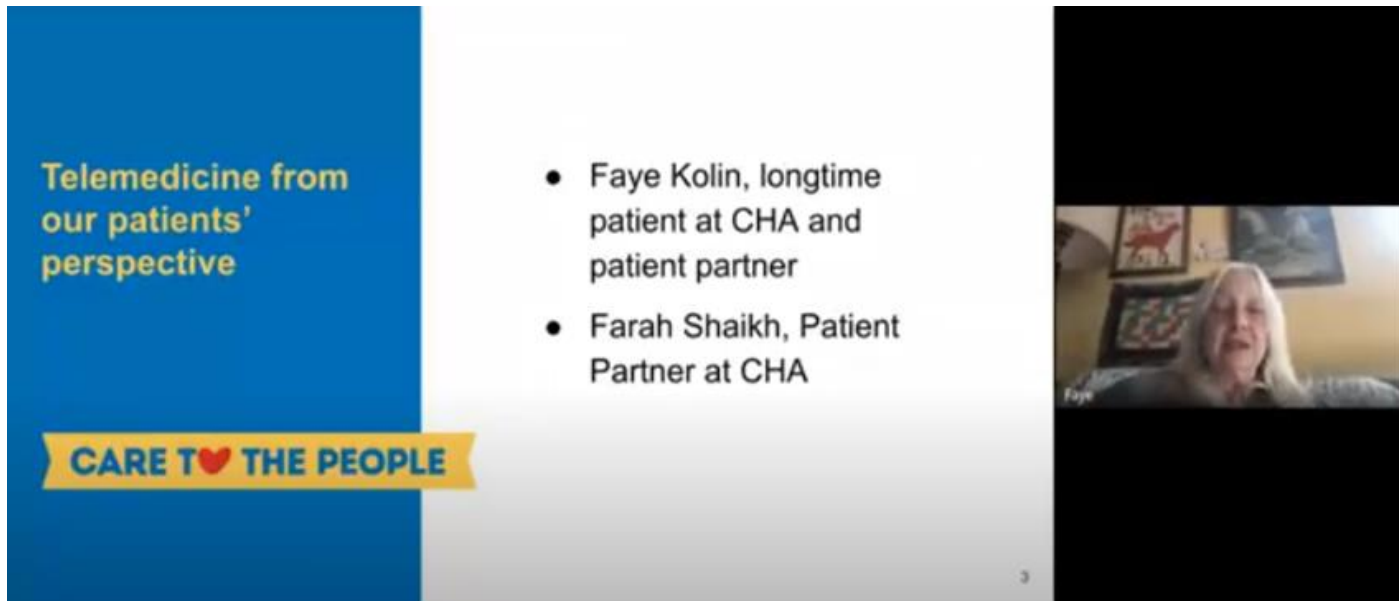
Source: The Authors

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

Faye Kolin, longtime patient partner and member of the PC innovation team

Watching the changes on CHA Facebook

Reactions to communications around how to get care and stay safe



The image shows a presentation slide on the left and a video call window on the right. The slide has a blue background with yellow text and a yellow banner at the bottom. The video call window shows a woman with white hair, identified as Faye Kolin, speaking. The slide text includes the title 'Telemedicine from our patients' perspective', a list of speakers, and the slogan 'CARE TO THE PEOPLE'.

Telemedicine from our patients' perspective

- Faye Kolin, longtime patient at CHA and patient partner
- Farah Shaikh, Patient Partner at CHA

CARE TO THE PEOPLE

3

Patient Digital Engagement Committee

Charter:

PDEC Vision: *The Patient Digital Engagement Committee will focus on what patients value from digital connectivity and their wants and needs. It will help patients optimize their digital experience and their health.*

PDEC Mission: *Patient Digital Engagement will focus services to meet patient needs in real time and create an easy and user-friendly patient virtual experience.*

Patient Partners from the start, now 2 partner voices on each sub-committee as well

Meet monthly with report outs by sub-committees on the work progress

Each meeting starts with a word from our patient partners and a review of the previous meeting's survey results



Outreach (telephonic management and directing patients to strategic in person care)



Example of outreach scripting for staff

“What Can We Do to Help Protect Our High Risk Patients?”

Let them know they are important to us, and that we want them to be healthy and safe. Hearing from the doctor’s office may have a different effect than just hearing it on the news

Make sure they have the right information about:

- COVID-19 in general

- Their risk

- How to stay safe, especially when its hard, because:

 - They, or someone in the house, has to go out to work or to go shopping

 - They have many people in the house

What to do if they or someone in the house starts having symptoms”



Targeted outreach with risk stratification

More scripting for staff:

“Who does COVID-19 affect the most?”

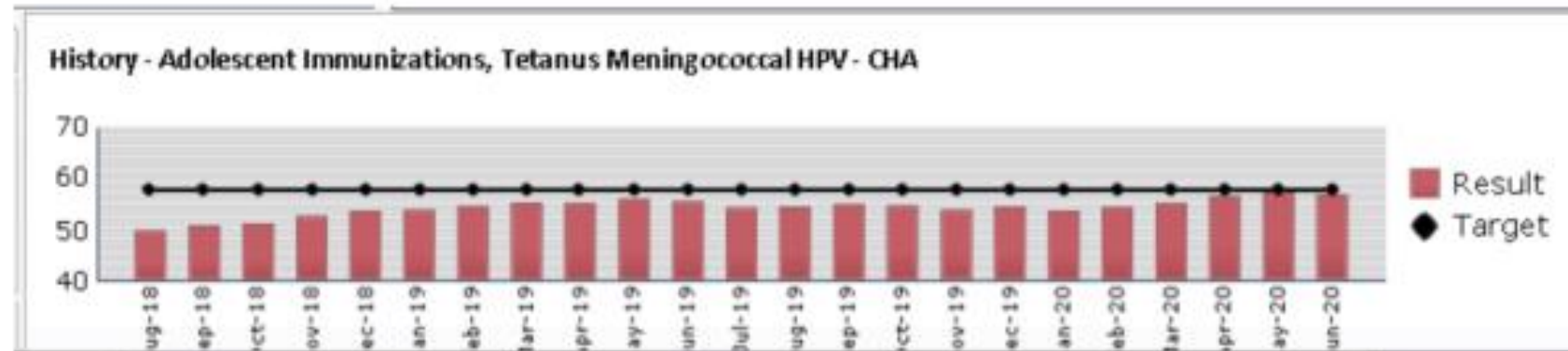
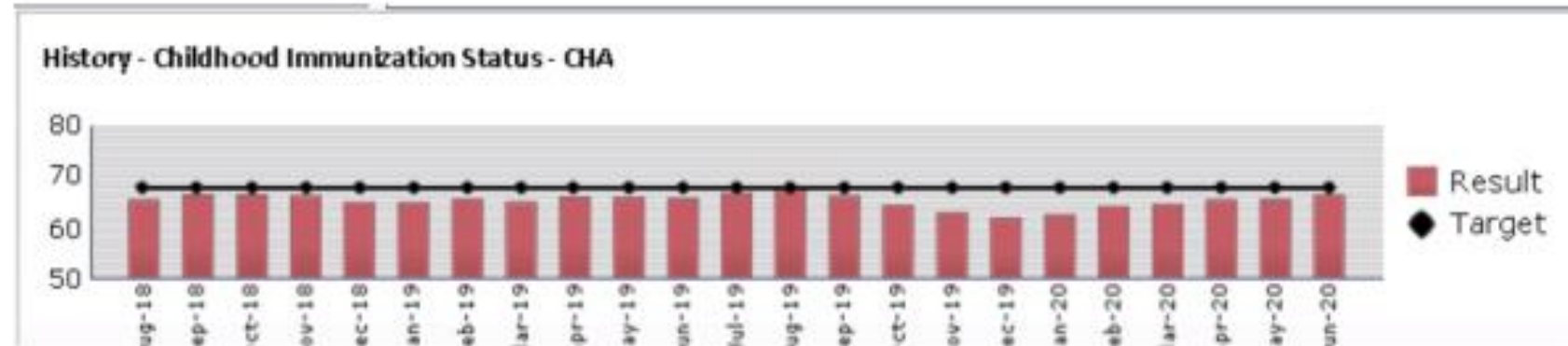
COVID19 affects people of all ages, but it affects them differently

- Children tend to do well, and usually just have very mild symptoms
- Adults don't do as well. Especially people who:
 - Are 65 years old, and older
 - Have chronic diseases such as :
 - Heart disease - a history of **hypertension**, **heart attacks** or angina, **heart failure**
 - Lung disease - **COPD**, or other lung diseases
 - Diabetes
 - Chronic Renal Failure
- Pregnant women”



Outcomes

- Thousands of patients with chronic disease outreached with priority on patients “not at goal” for their disease
- You succeed in what you prioritize – childhood immunizations
- This IS an equity strategy

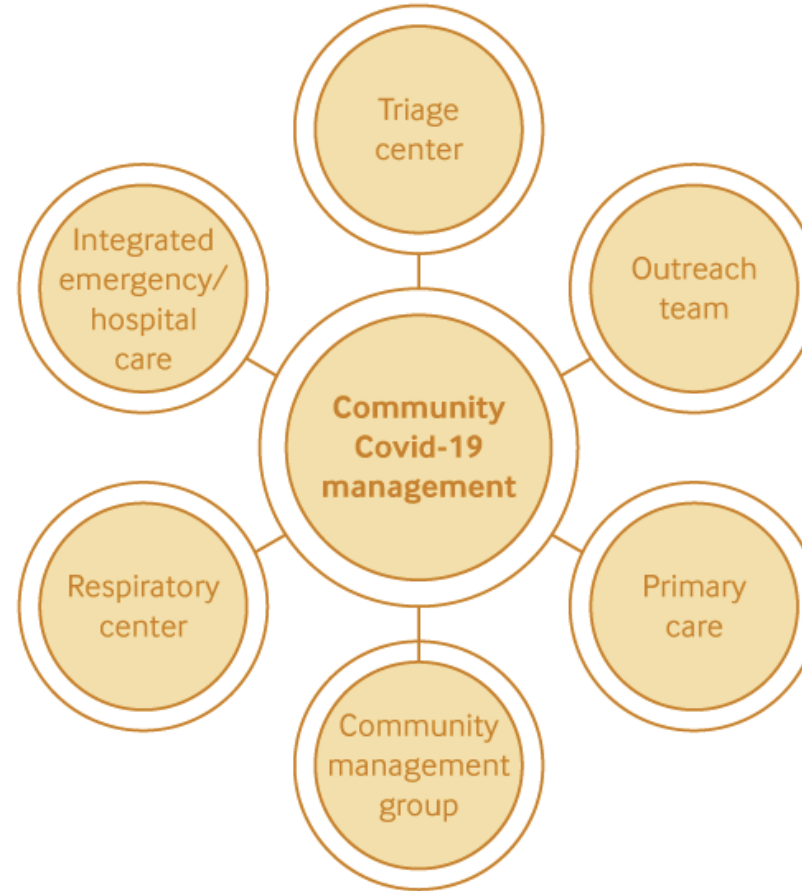




Community COVID management



Cambridge Health Alliance Covid-19 Community Management Program: Key Components



Source: Cambridge Health Alliance

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

Community Based Program Principles

Outreach (risk stratified)

Whole Person Care across continuum

Social Media (who do our communities listen to?)

Data + Story -> Adaptation

Keep people out of the hospitals (and the ER!)



Una-se ao CHA e Eliot Family Resource Center

Na sexta-feira, 14 de agosto, às 11h. Para uma conversa sobre

Preparando-se Para o Outono: volta às aulas e outras considerações

Junte-se com Zoom: <https://zoom.us/j/99698884577>

Ou 1-646-876-9923, 99698884577#

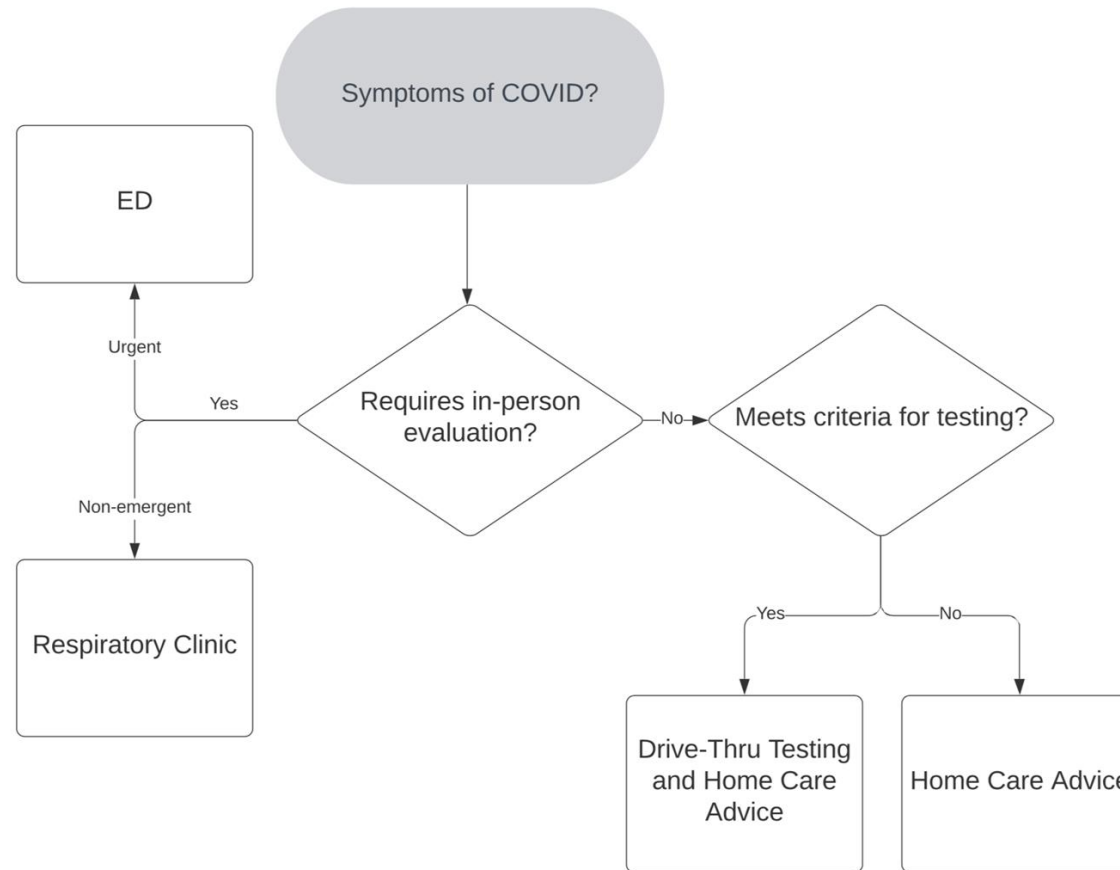


Convidada especial:
Dr. Kirsten Meisinger



Hosted by:
Mariana Patino

COVID Triage Center





Respiratory Clinic



Centering the Voice of the Community

Patient Stories:

Fear of dying alone

Solo income for a household

Fear of getting tested

Concerns about Remdesivir

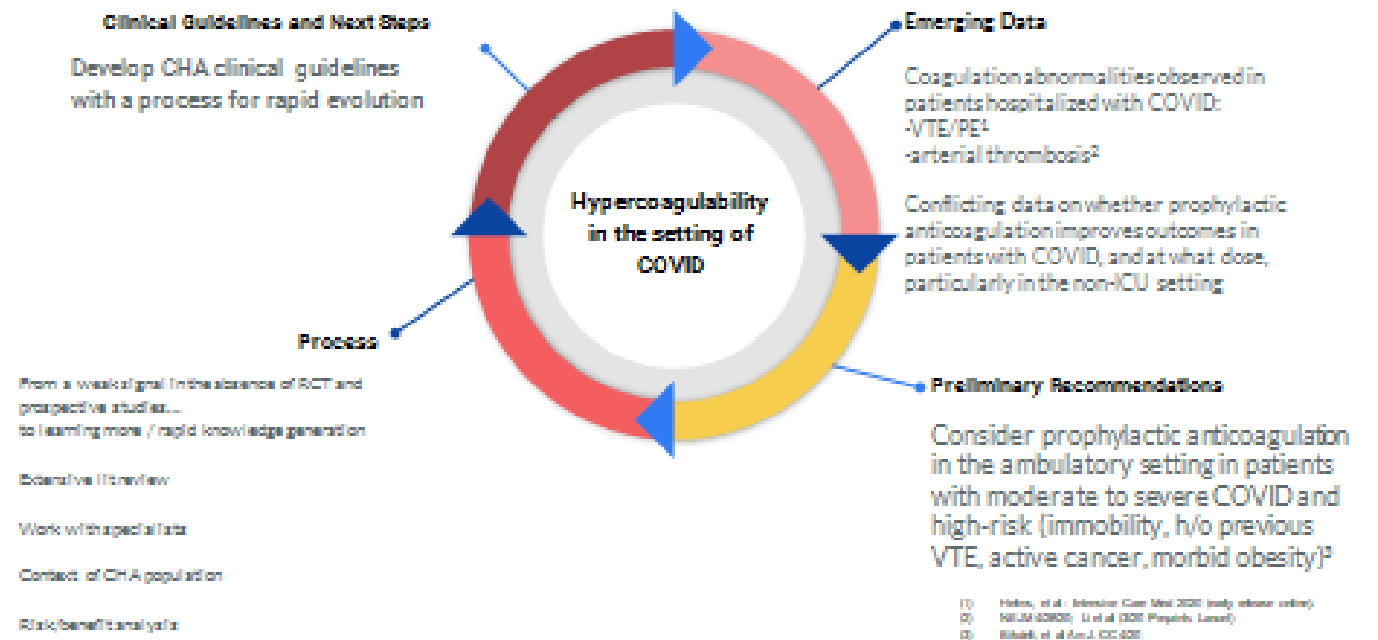
Sub Segmented Data:

Haitian Community – higher risk of hospitalization, but first point of contact = hospital

Central American patients – Higher risk of hospitalization at younger ages without comorbidities (3x rate of hospitalization)

How we learn in COVID-19

What's Emerging: Hypercoagulability



CHA as a Learning System (O2 Monitors)

Patients who meet the following criteria

1. Known or suspected covid AND any of the below criteria
2. Resting O2 sat of < 95% on room air AND age > 35 yo

Or

1. Any age with resting O2 sat > 93% on room air but with O2 sat < 90% with ambulation
2. High-risk of COVID complications and dyspnea - even if no hypoxia
3. Post-hospitalization for COVID

Patients excluded

1. Patient does not already have an oximeter at home
2. Patient being transferred to ED
3. Patients who do not have the ability to call
4. Patients who do not have the ability to accurately use the oximeter
5. Patients who cannot understand protocol to interpret O2 Sat and notify provider



Community Management

Telephonic
Management of
Dyspnea

Informal Contact
Tracing (public /
pop health
approach)

Trust Based

Coaching

Connect to
Behavioral
Health

Food Security
Project

How we changed care in response to the inequity that emerged - listening to weak signals

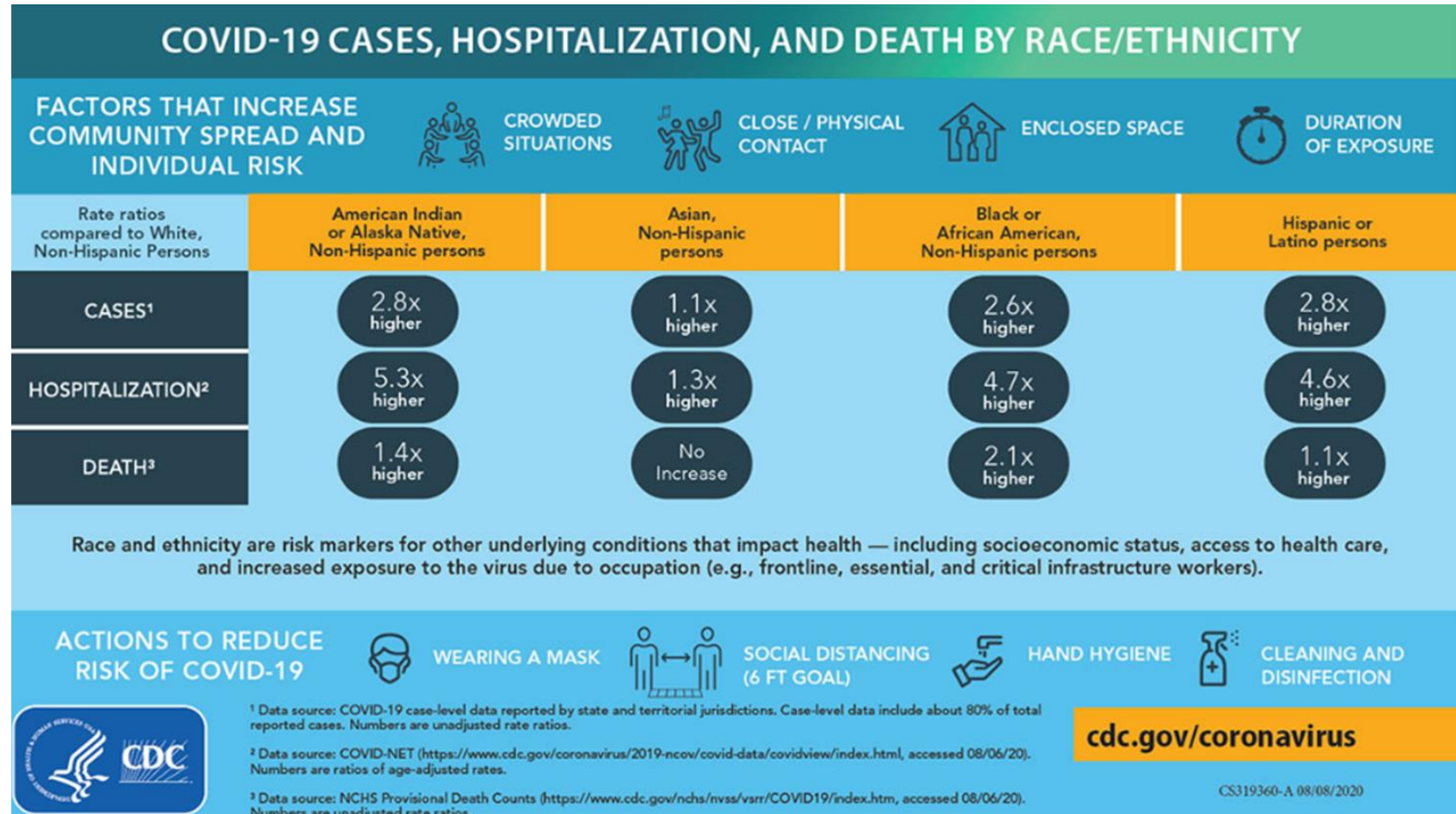
Outreach

Clinical learning on the fly

Listening to the patients carefully

Social media strategy

Call and response!



What are the new dinosaurs?

Annual Physical

Screening intervals with no evidence base

Office visits as the only way of doing care

Phone management is no longer an add on

We have slowed down – to avoid errors

Workspaces

Work hours

Waiting Rooms

Access limited to bank hours

The charade of the physical exam



What is Canada thinking?

PREVENTION IN PRACTICE

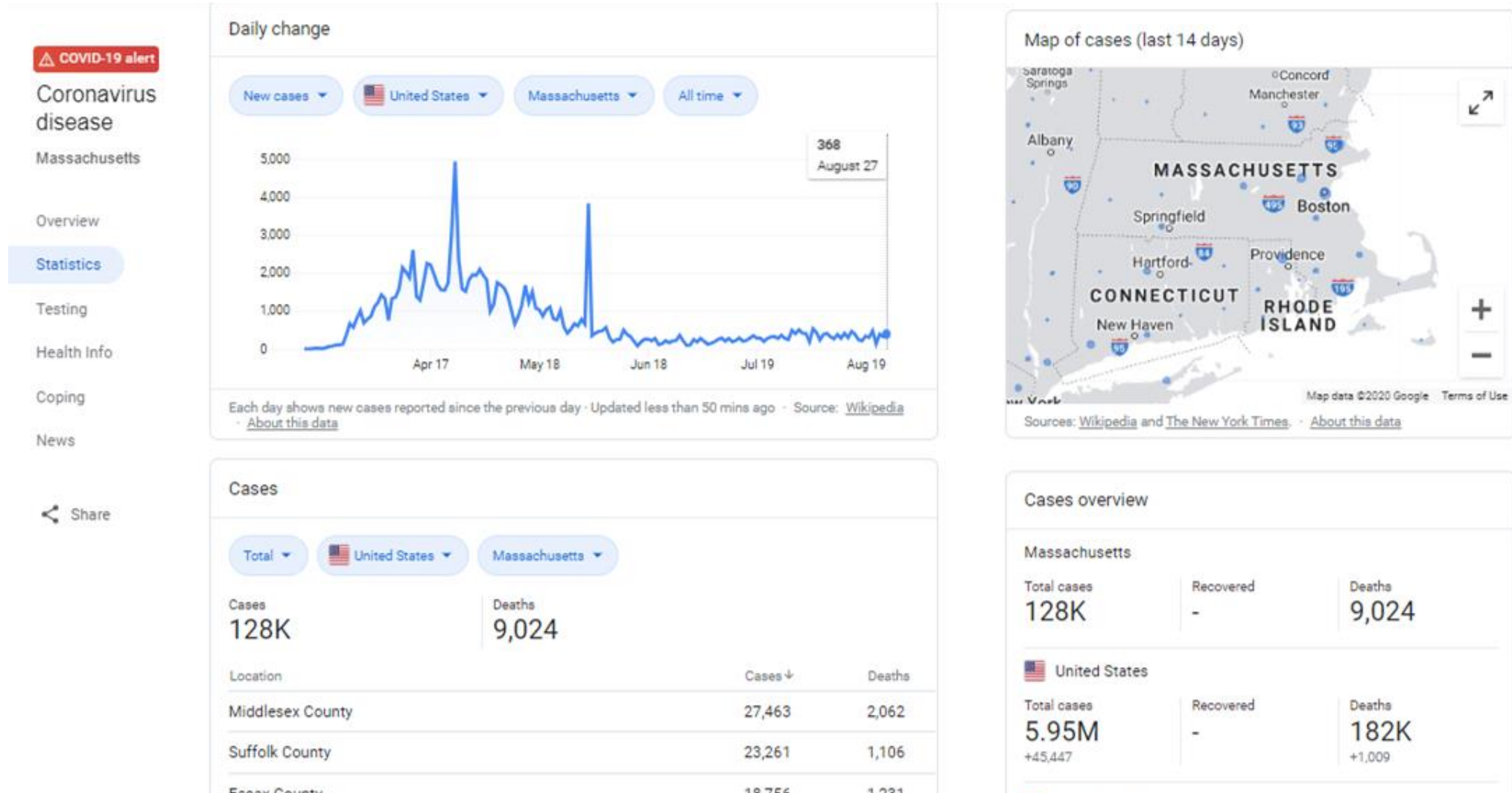
Table 2. Recommendations on screening for cardiovascular disease and cancer

| SCREENING FOR ... | RECOMMENDATION BY CTFPHC | INTERVAL | NEED FOR CLINIC VISIT |
|-------------------------------|---|------------------|-----------------------|
| Cardiovascular disease | | | |
| • Hypertension | Strong | 3-5 y | No |
| • Dyslipidemia | No CTFPHC recommendation • Men > 40 y, women > 50 y ²¹ | 5 y | No, laboratory |
| • Type 2 diabetes | Conditional. Use risk calculator to assess • For high risk (> 30% 10-y risk) • For very high risk (> 50% 10-y risk) | 3-5 y Annual | No, laboratory |
| • Abdominal aortic aneurysm | Conditional • Men 65-80 y | Once | Imaging centre |
| Cancer | | | |
| • Colorectal | Conditional for age 50-59 y Strong from age 60-74 y | 2 y | No |
| • Cervical | Conditional from age 25 y Strong from age 30-65 y | 3 y | Yes |
| • Breast | Conditional | 2-3 y | Imaging centre |
| • Lung | Conditional if in high-quality centre | Annually for 3 y | Imaging centre |



So how does all of this intersect with value?

Massachusetts context for COVID in 2020



In Summary

During the COVID surge in Boston, CHA's innovative community based COVID management has treated 7,500 patients with only a 3% hospital admission rate, compared to 9% locally, and 26% nationally, despite caring for a patient population with a community case rate that was *more than three times* the state average. (There were no reliable therapeutic modalities available at that time other than oxygen.)





Additional Resources

<https://www.challiance.org/cha/covid-clinical-resources>

<https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-outpatient-evaluation-and-management-in-adults>