

ACP-COVID

A Trial to Evaluate an Advance Care Planning Video and Communication Skills
Training Intervention for Older Adults During an Evolving Pandemic

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GENERAL HOSPITAL



HARVARD
MEDICAL SCHOOL



Dana-Farber
Cancer Institute

Dr. Volandes has a financial interest in ACP Decisions, a non-profit organization developing advance care planning video decision support tools. Dr. Volandes' interests were reviewed and are managed by MGH and Mass General Brigham in accordance with their conflict-of-interest policies. No other disclosures to report.

THANK YOU!

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Dr. Yuchiao Chang

Dr. Charlotta Lindvall

Northwell Health

NIH Common Fund

NIH Collaboratory

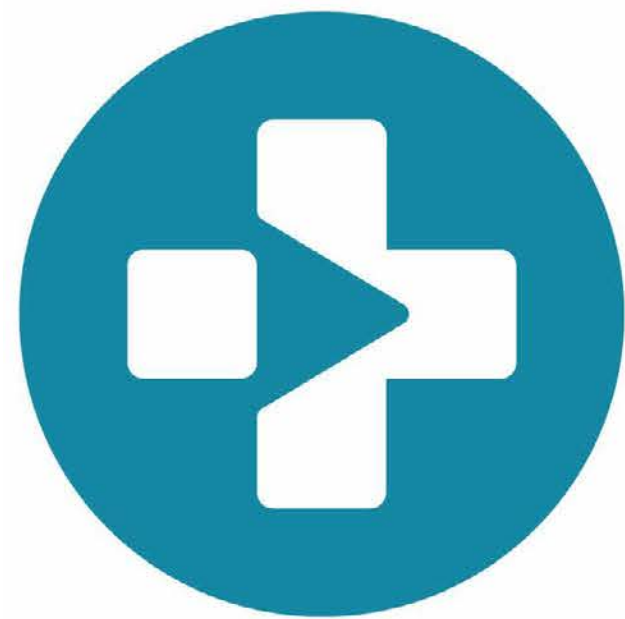
Story

Study

Future



VITALtalk



ACP DECISIONS

ACCP



PEACE

Promoting Effective & Aligned
Communication in the Elderly

ACCP



PEACE

Promoting Effective & Aligned
Communication in the Elderly



SPRING 2020

NYC



























AACP



COVID

Communicating with Outpatients
for Vital Informed Decisions

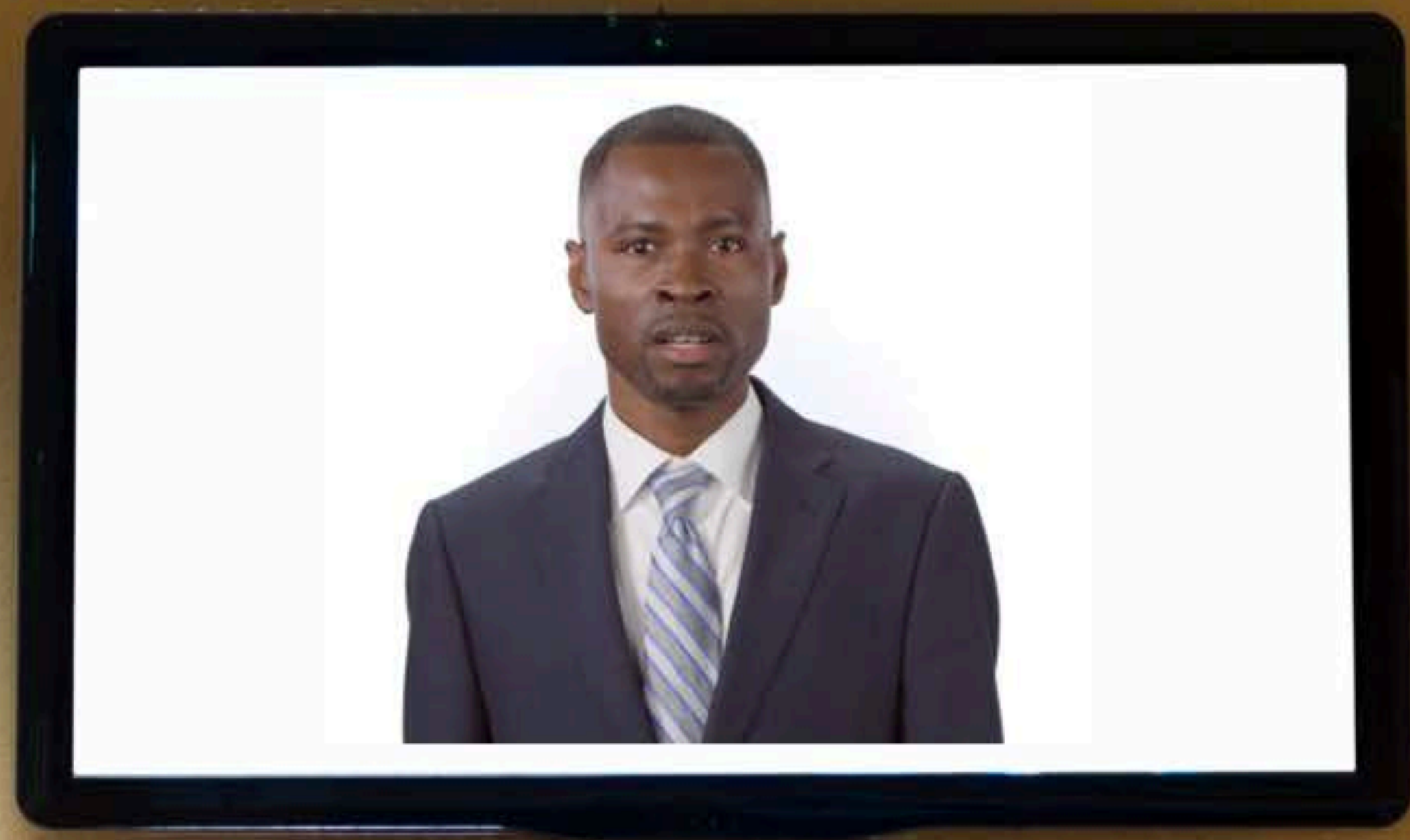
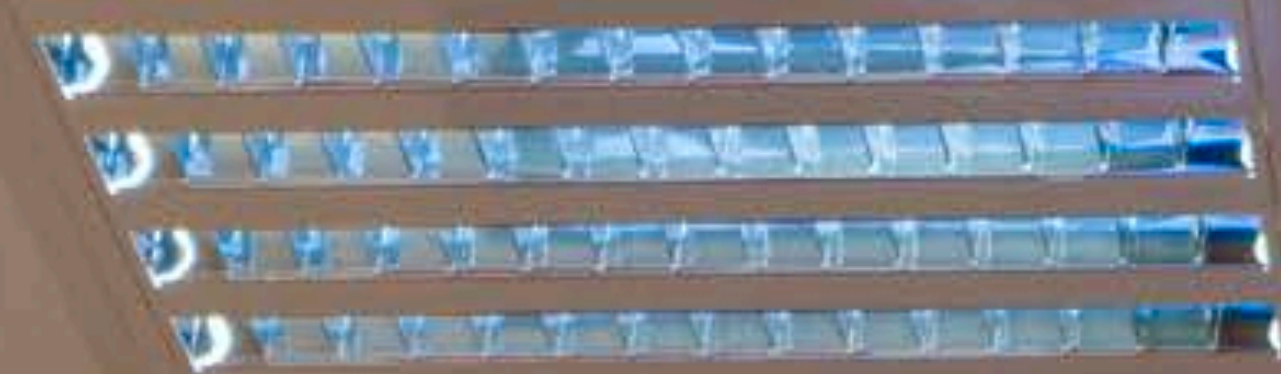


Northwell

Health[®]









TELE HEALTH

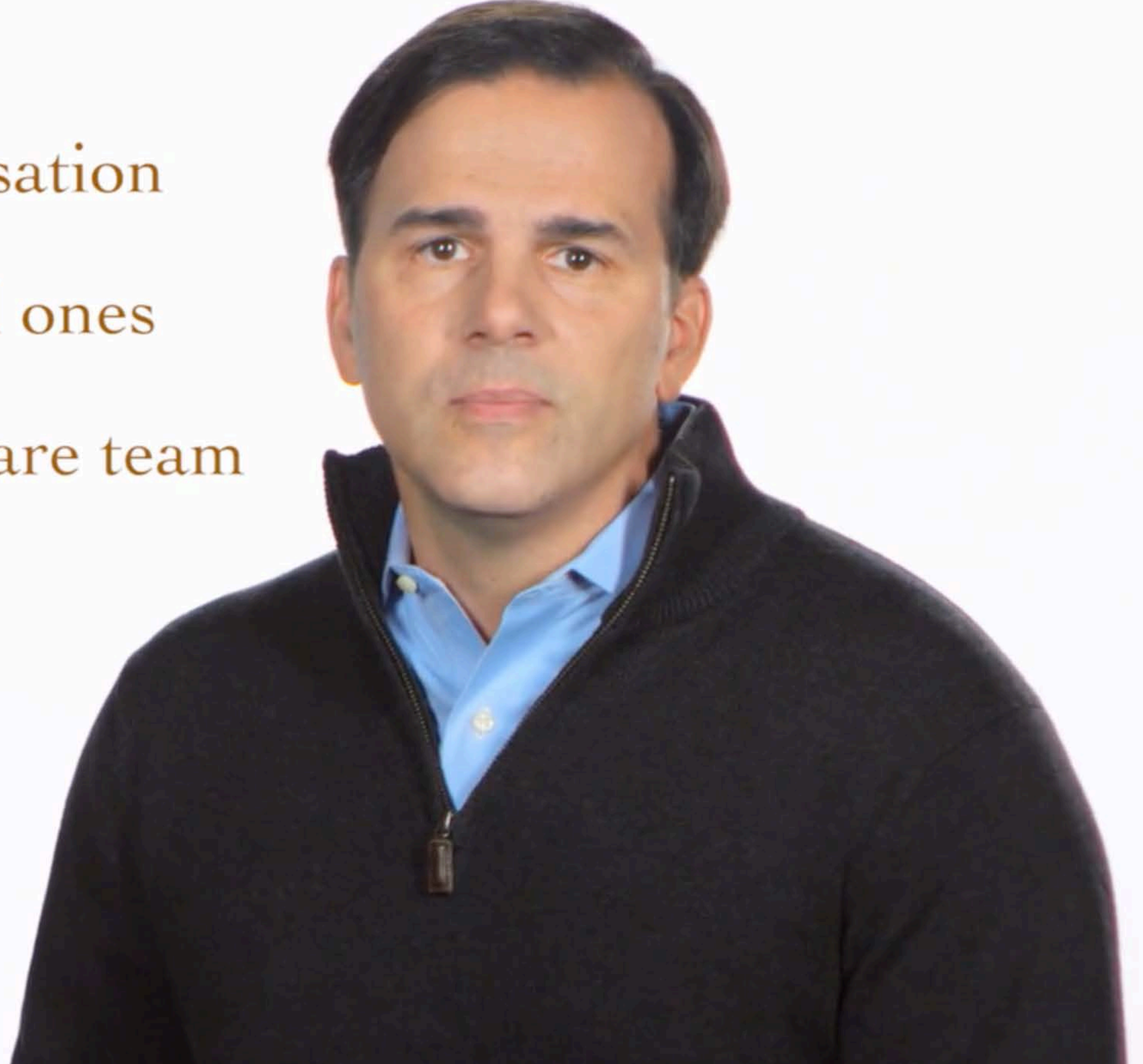




Have The Conversation

Talk to your loved ones

Talk to your health care team



Coronavirus Disease 2019





Fever

Coughing

Problems
Breathing



Respiratory System



Pfizer and Moderna

Cómo funcionan
Efectos secundarios
Preguntas frecuentes



McDonald's

1180

W 46 St

W 45 St

W 46 St

Benjamin Maintenance

Smoothing

French

CURLY

SUN-

PHONE

RIES

2

W 46 St

LITTLE BRAZIL

W 46 St

LITTLE BRAZIL

W 46 St

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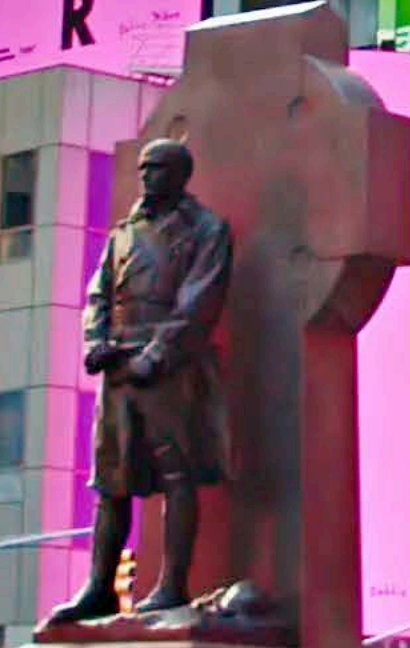
TONY AWARDS
ST
TOWN
KERR THEATRE 219 W. 48TH ST

JERRY SEINFELD HAS...
23 HOURS TO KILL
NOW STREAMING | NETFLIX

JERRY SEINFELD HAS...
23 HOURS TO KILL
A NETFLIX COMEDY SPECIAL
NOW STREAMING | NETFLIX

VISIT
SWAROVSKI
TIMES SQUARE
HERE
Southwest of the
Red Stairs Times Square
SWAROVSKI

TAPARTER
TAPARTER
TAPARTER
TAPARTER



tkts

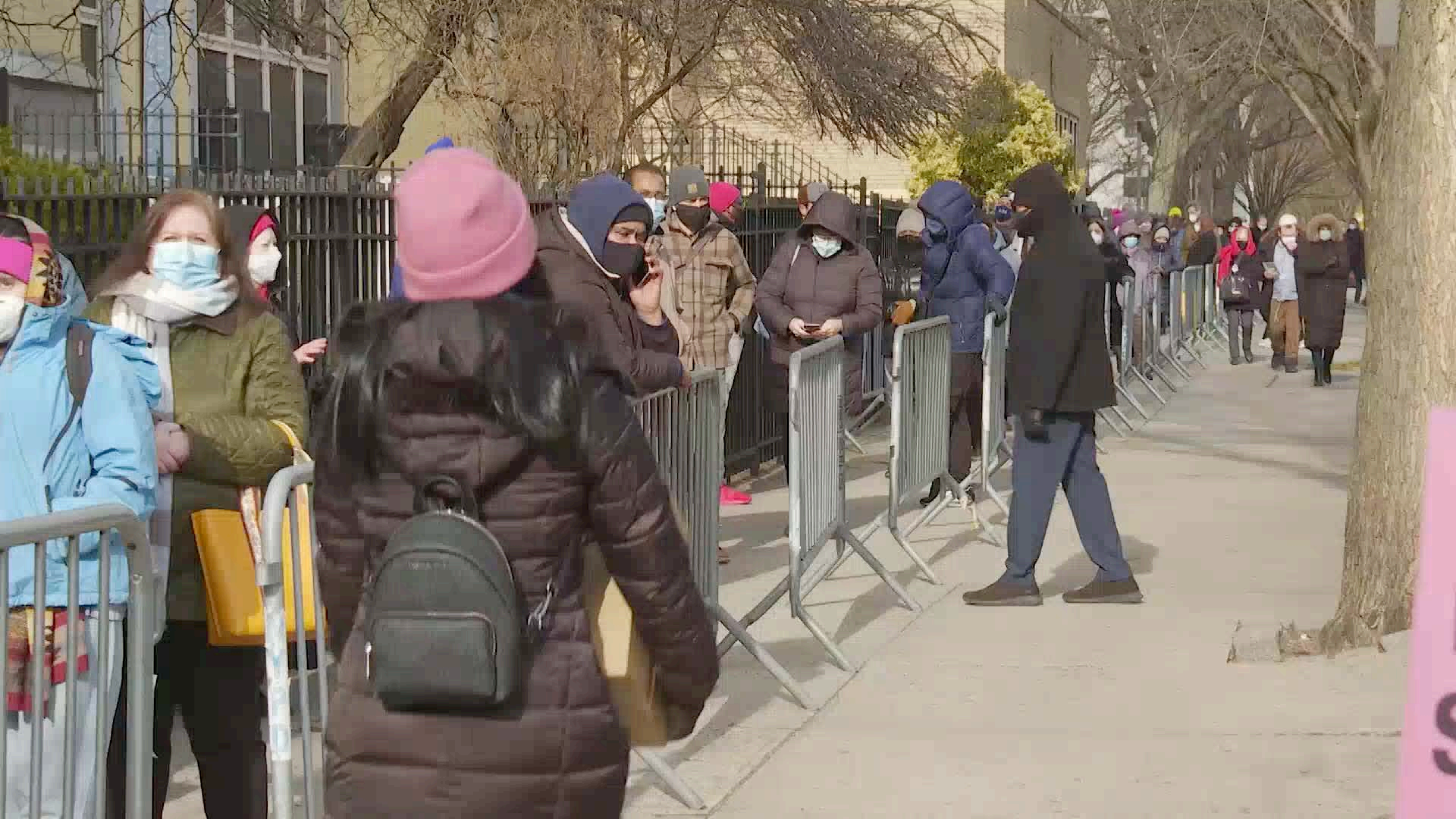
Coca-Cola
Coca-Cola
Staying apart
is the best way to
stay united.

Green Giant
STAY HOME,
WASH YOUR
HANDS
& EAT YOUR
VEGGIES
#STAYHOME



tkts









VitalTalk's MISSION

There is nothing more powerful than a clinician that knows how to listen and respond.

Every patient deserves a clinician who meets their health needs with clear and empathic communication.

It is from this mission that VitalTalk was born.

VitalTalk is a nonprofit founded by three doctors, born out NIH research funding.

We are the leading organization providing evidence-based communication trainings with nationally recognized founders.

We have over 650 clinician-faculty trained across the country.

Our experience ranges from tertiary medical centers to community clinics, training cardiologists, oncologists, hospitalists, and more.



WHO WE ARE

“VitalTalk is the gold standard of clinician communication trainings”

JOHNS HOPKINS PROVIDER

Where do we
get stuck when
discussing
goals of care?




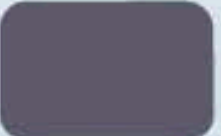









Learning a
new skill is
about
**observation,
practice, and
feedback**



Today



- Intros
- Learn/See a talking map for goals of care
- Skills practice: 2 Patients
- ACP COVID study discussion

15 min		Welcome
25 min		REMAP Didactic & Demo
15 min		Small Group Start Up
15 min		Drill #1
15 min		Drill #2
10 min		Break
50 min		Roleplay
5 min		Break
50 min		Roleplay
10 min		Small Group Reflection & Close
30 min		ACP Decisions

REMAP

For Late Goals of Care
Conversations

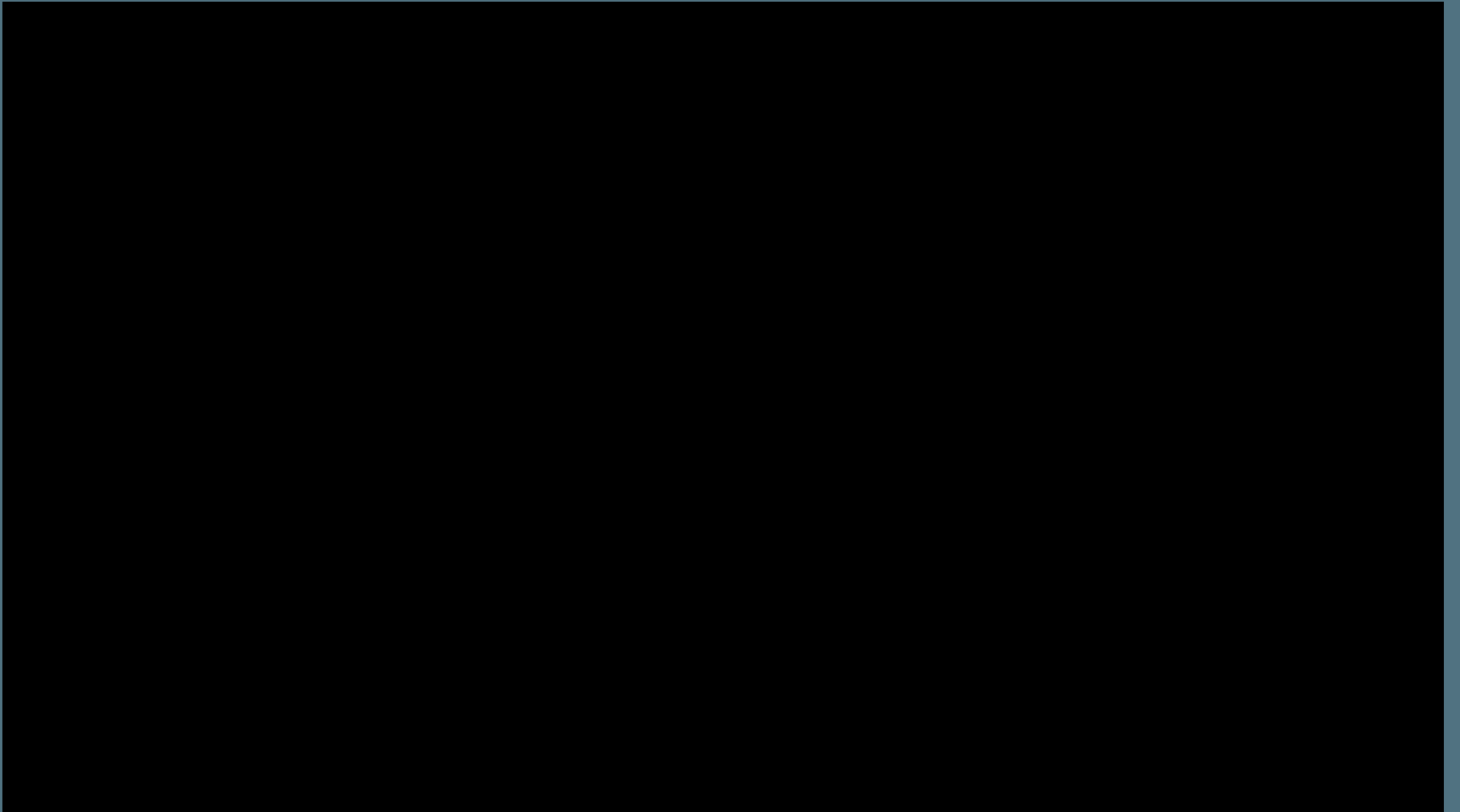
REFRAME
the situation

EXPECT EMOTION
respond with empathy

MAP
out important values

ALIGN
with the patient & family

PLAN
treatment to uphold values





Trial Design: Pre-Post, open cohort, non-randomized, controlled pragmatic trial

- Two Control Periods:
 - Pre-COVID-19 Baseline (Sept 15, 2019-March 14, 2020)
 - First wave COVID-19 Baseline (March 15, 2020-Sept 14, 2020)
- Intervention Period (Dec 15, 2020 – June 14, 2021)

Primary analysis: Compare Intervention and First Wave



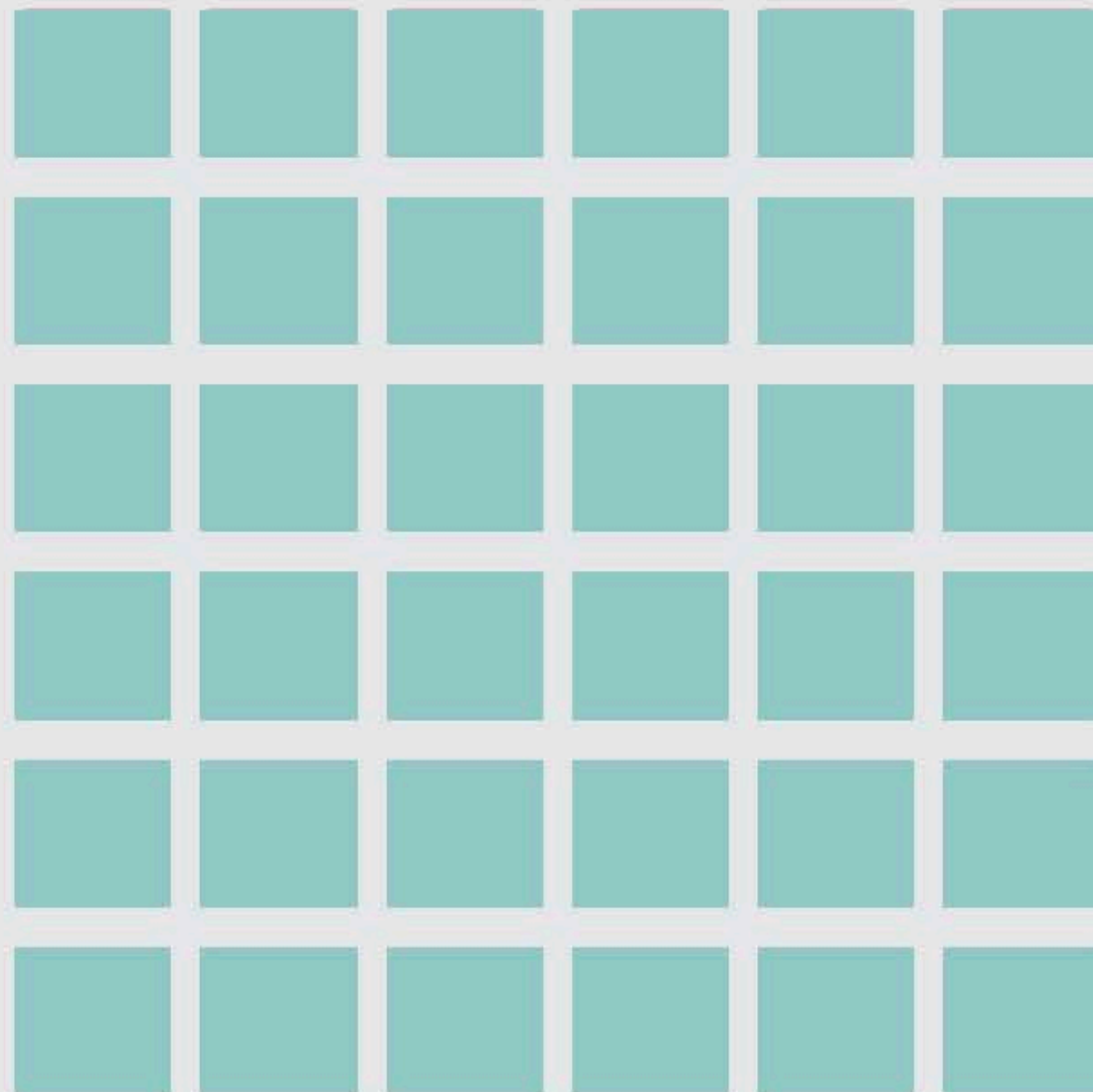
Statistical Design:

- Intention-to-Treat Analysis
- Generalized estimating equations approach to account for clinic practice clustering and repeated measures over time
- ***Prespecified subgroup analyses***: change from control to intervention between white and non-white minorities (combined and separate)

Sample Size: 7,800 patients and 150 clinicians

STRUCTURED DATA

Extracted from EHR
and ready for analysis



APOINTMENT OF AGENT

PRINT YOUR NAME

(1) I, _____, hereby appoint

PRINT THE NAME,
HOME ADDRESS
AND TELEPHONE
NUMBER OF YOUR
AGENT

(name, home address and telephone number of proxy)

as my health care agent to make any and all health care decisions for me, except to the extent that I state otherwise below.

This Health Care Proxy shall take effect in the event that a determination is made by my attending physician that I lack the capacity to make or to communicate my own health care decisions. My attending physician shall make such determination in writing, and shall include his or her opinion regarding the cause and nature of my incapacity, as well as its extent and probable duration.

(OPTIONAL)
PRINT THE NAME,
HOME ADDRESS
AND TELEPHONE
NUMBER OF YOUR
ALTERNATE AGENT

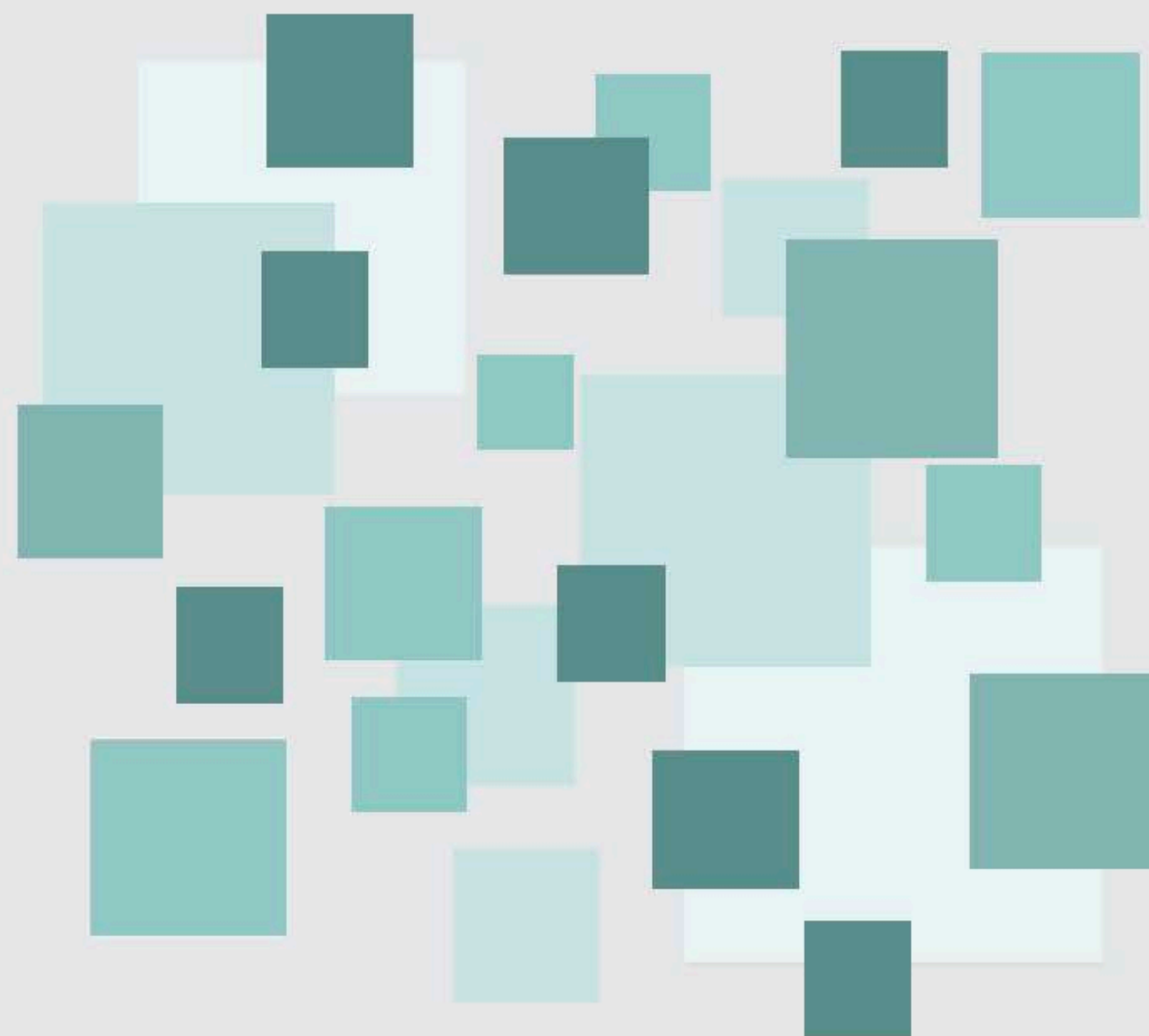
(2) Name of alternate agent if the person I appoint above is unable, unwilling, or unavailable to act as my health care agent (optional):

(name, home address and telephone number of alternate agent)

(3) I direct my agent to make health care decisions in accord with my wishes and limitations as may be stated below, or as he or she otherwise knows. If my wishes are unknown, I direct my agent to make health care decisions in accord with what he or she determines to be my best interest.

UNSTRUCTURED DATA

Clinical annotations
embedded in EHR

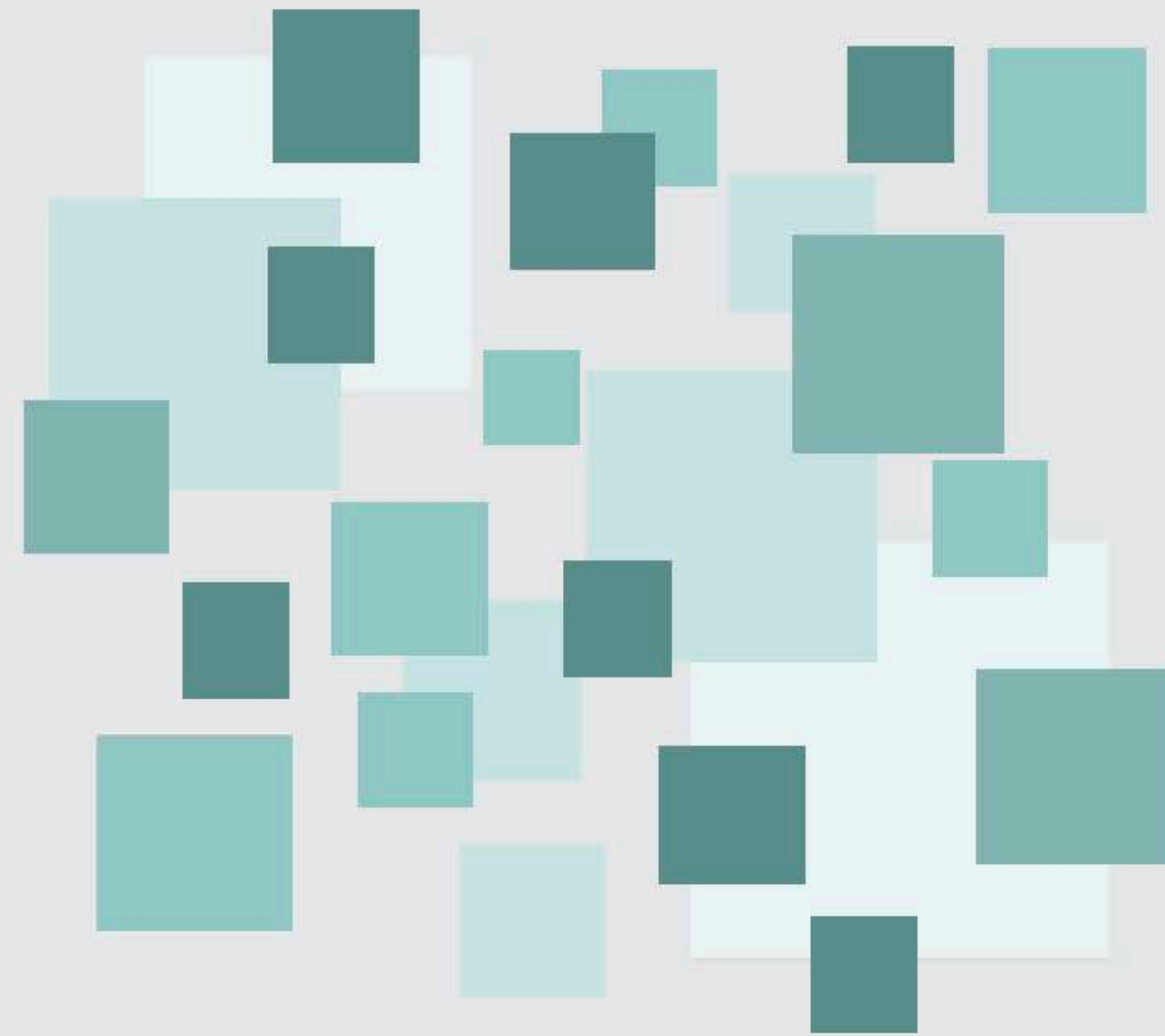


past medical history of a blood dyscrasia requiring weekly transfusions, and on admission found to have pancytopenia. His family (2 daughters and a son) are all in agreement that they would like no heroic measures, no blood transfusions, no resuscitations, and no blood pressure interventions. They would like comfort measures only, however would like their father to remain intubated until they arrive

Chief complaint:

UNSTRUCTURED DATA

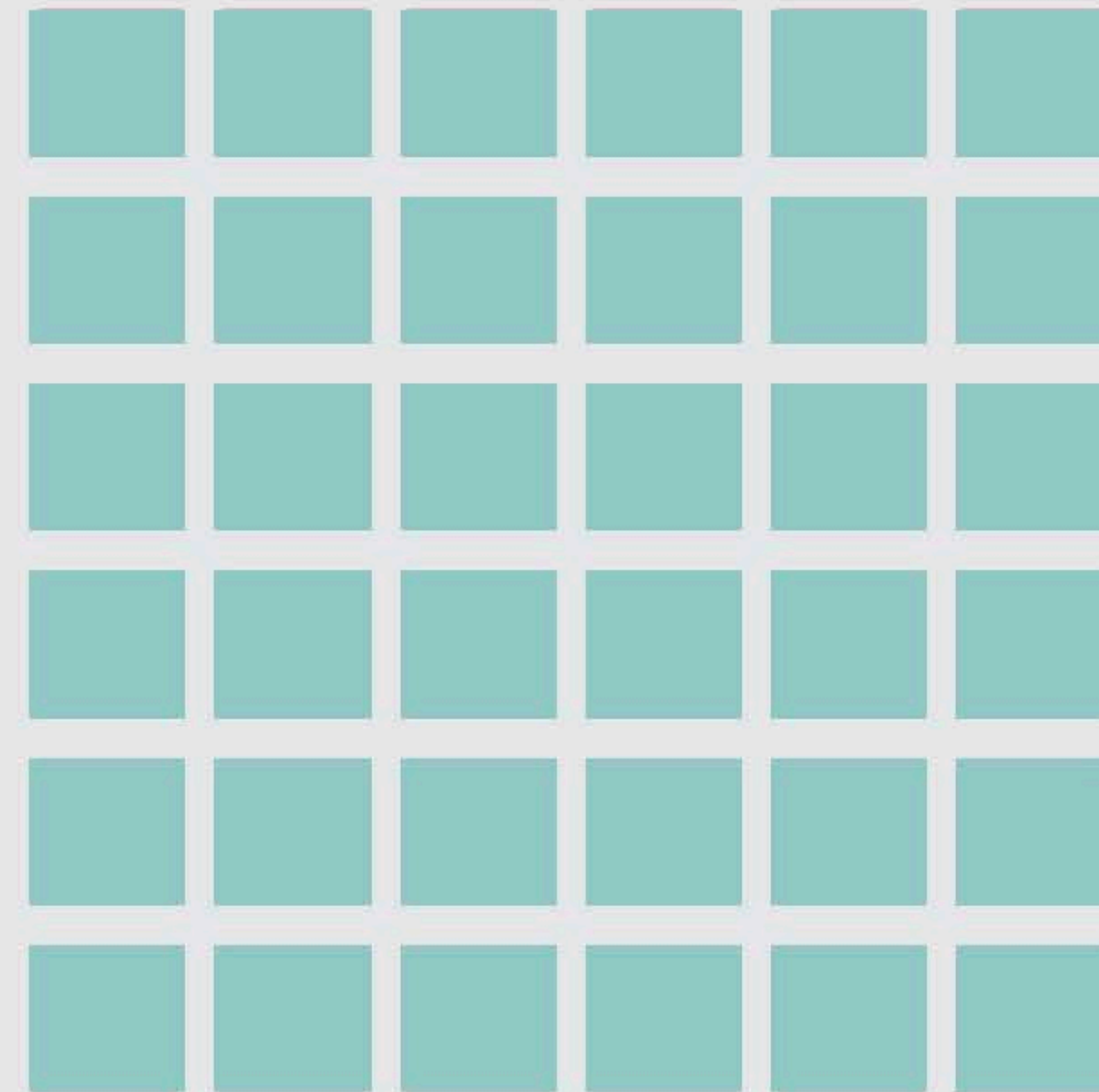
Clinical annotations
embedded in EHR



**70-80% of patient EHR
data is unstructured**

STRUCTURED DATA

Extracted from EHR
and ready for analysis



**40% of structured data is
recorded incorrectly
or are duplicative**

Human coder



CLINICAL
NOTE



MANUAL
Read EMRs



MANUAL
Identify terms of interest



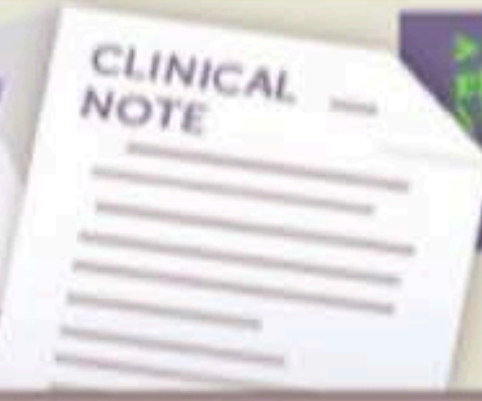
MANUAL
Input terms

MRN	GOC
XXXX56	↓
XXXX43	0
XXXX81	↓
XXXX03	↓

MANUAL
Results

50
patient
notes/DAY

Rule-based NLP



```
>(tmp_resp <-  
rbind(tcdf[grepl("^5100  
\\d*  
dsicps copm),],  
d[grepl("78609",
```

AUTOMATED
Run regex



✓ 51881 Acute resp
✓ 51882 Other pulr
Chronic re

MANUAL
Accept findings

MRN	GOC
XXXX56	↓
XXXX43	0
XXXX81	↓
XXXX03	↓

MANUAL
Results

500
patient notes/DAY

Human coder



CLINICAL
NOTE



MANUAL
Read EMRs



MANUAL
Identify terms of interest



MANUAL
Input terms

MRN	GOC
XXXX56	1
XXXX43	0
XXXX81	1
XXXX03	1

MANUAL
Results

50
patient
notes/DAY

Rule-based NLP



CLINICAL
NOTE

```
>(tmp_resp <-  
  rbind(lcd(grep1("^5188  
  \\d",  
  medicals_code)),  
  d1grep1("^78609"
```

AUTOMATED
Run regex



MANUAL
Accept findings

✓ 51881 Acute resp
✗ 51882 Other pulr
Chronic re

MRN	GOC
XXXX56	1
XXXX43	0
XXXX81	1
XXXX03	1

MANUAL
Results

500
patient notes/DAY

Rule-Based NLP

Natural Language Processing (NLP) refers to a branch of artificial intelligence which allows computers to process and analyze language

Rule-Based NLP refers to a pre-specified set of rules (i.e., keywords and phrases) to process and analyze language

Rule-based NLP

CLINICAL NOTE

```
>(tag_resp <-  
  rbind(toc[grepl("^5188",  
    \\d*,  
    dsic09_codes),],  
  d[grepl("^786009",
```

AUTOMATED
Run regex

MANUAL
Accept findings

MRN	GOC
XXXX56	1
XXXX43	0
XXXX81	1
XXXX09	1

MANUAL
Results

500
patient notes/DAY

Rule-Based NLP in ACP-COVID

1) Identify the outcome of interest and outline it's related domains

Rule-Based NLP in ACP-COVID

- 1) Identify the outcome of interest and outline it's related domains**
- 2) Create a keyword library and annotations guidelines which represent how the domains are documented**

“During goals-of-care discussion with patient walking with a cane and family, pt expressed of a walker is one wish to be home of their goals of care”

Study Demographics

Female (%)

Hispanic or Latino (%)

Non-Hispanic Black (%)

EHR Notes per Study Period



- **185 clinicians trained from 22 Northwell Health sites**
 - **9 trainings over 4 months**

- **82%** of participants were **very or somewhat likely** to recommend the course

- **74%** of participants were **very likely** to put the skills they learned into practice

Describe one or two of the most important take-away lessons for you personally....

“This course allowed me to . . . improve on my shortcomings in conveying information”

“Course instructors were fantastic, very enthusiastic and comprehensive”

“Empathy never causes harm”

“Asking permission . . . places more focus on what matters to the patient”



What aspects of the course
did you find most impactful...

“Real simulated patients, empowered
by proposed steps to take”

“Participating in and observing my
peers work through challenging
conversations”

“Telling my patients honestly that
despite them being healthy, they were
at high risk of dying if they acquired
COVID-19”



Janus.

**"It's all about implementation,
implementation, implementation."**

Vince Mor and Susan Mitchell



FUTURE

iPad

**iPad
texts
emails**

video cards

2320

5302





FUTURE

Staff training



**Dedicated
ACP Staff?**

~50%

85%

0-7

0



FUTURE

Medium
Diversity

High Diversity
-Black
-Hispanic

Over-sample
-Black
-Hispanic
-Rural
-SGM



FUTURE

Randomized

Pre-Post

Randomized



THANK YOU!

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