

# VISUALIZING COVID-19

## RE-IMAGINING GOVERNOR CUOMO'S DAILY CHARTS

**APRIL 29**

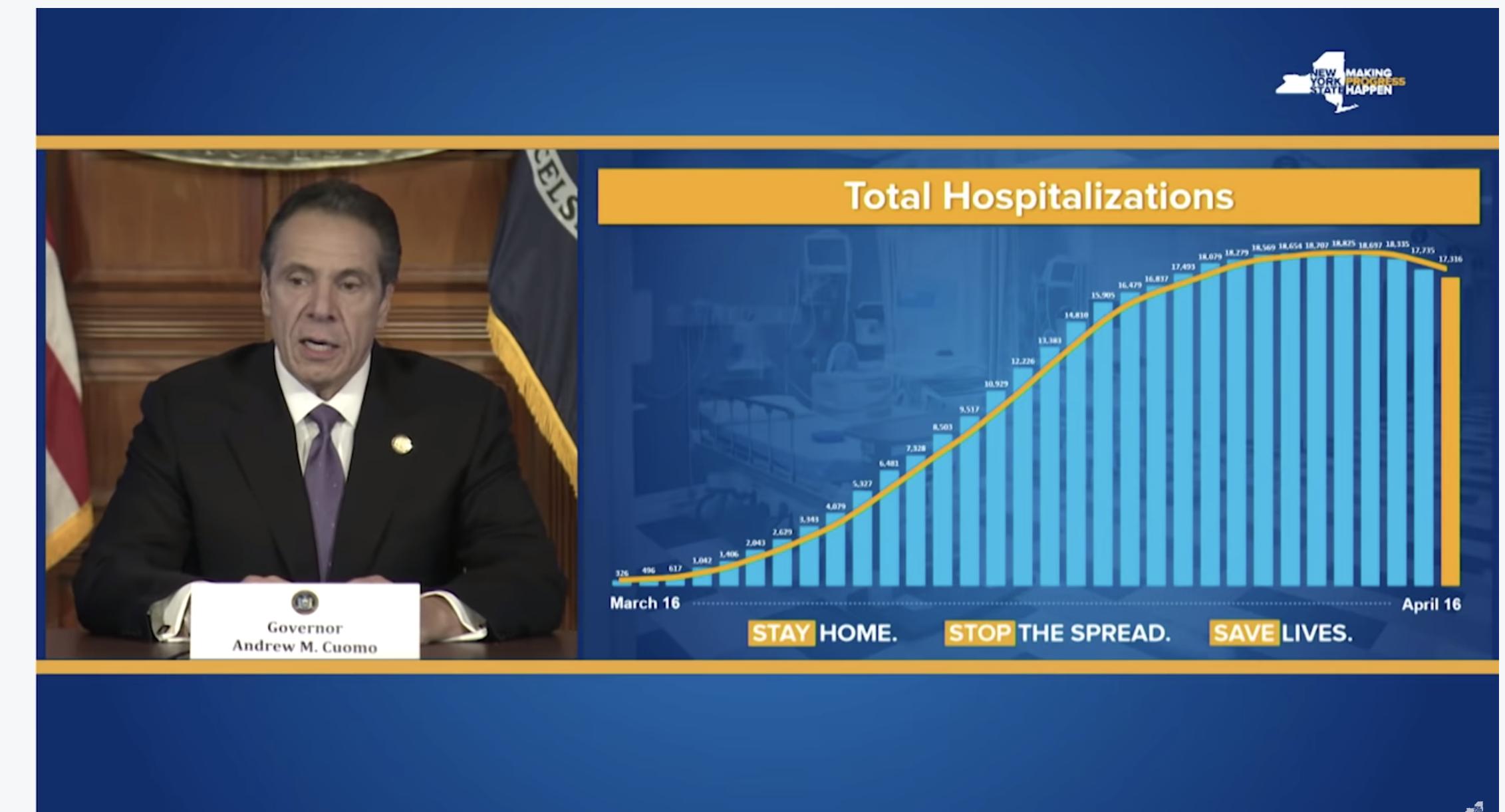
PARTNER GIORGIA LUPI,  
PHIL COX, SARAH KAY MILLER

Pentagram

# INTRO

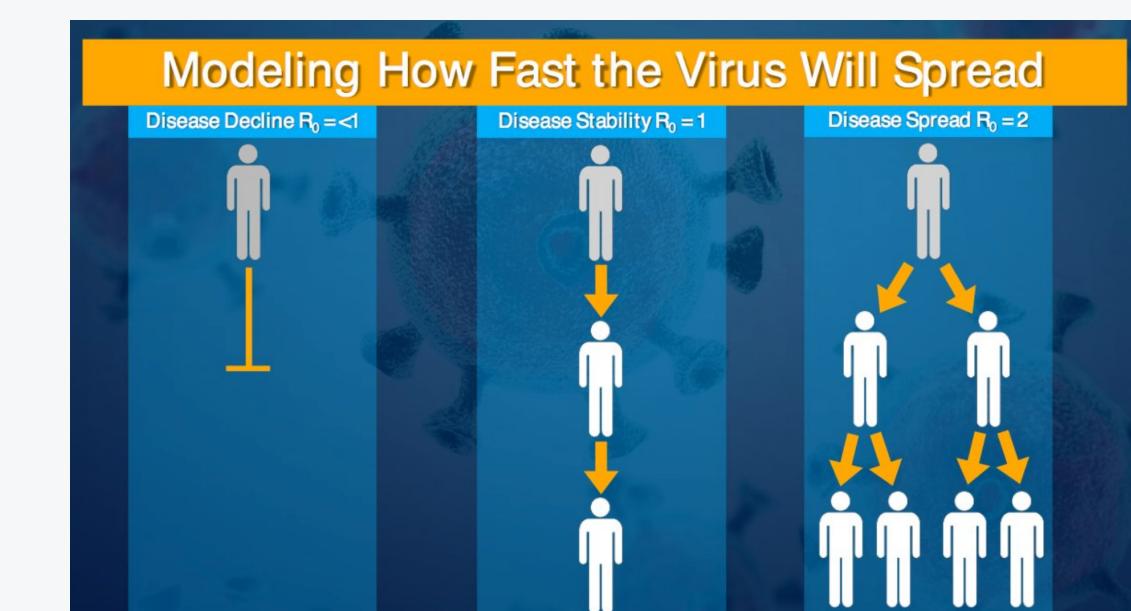
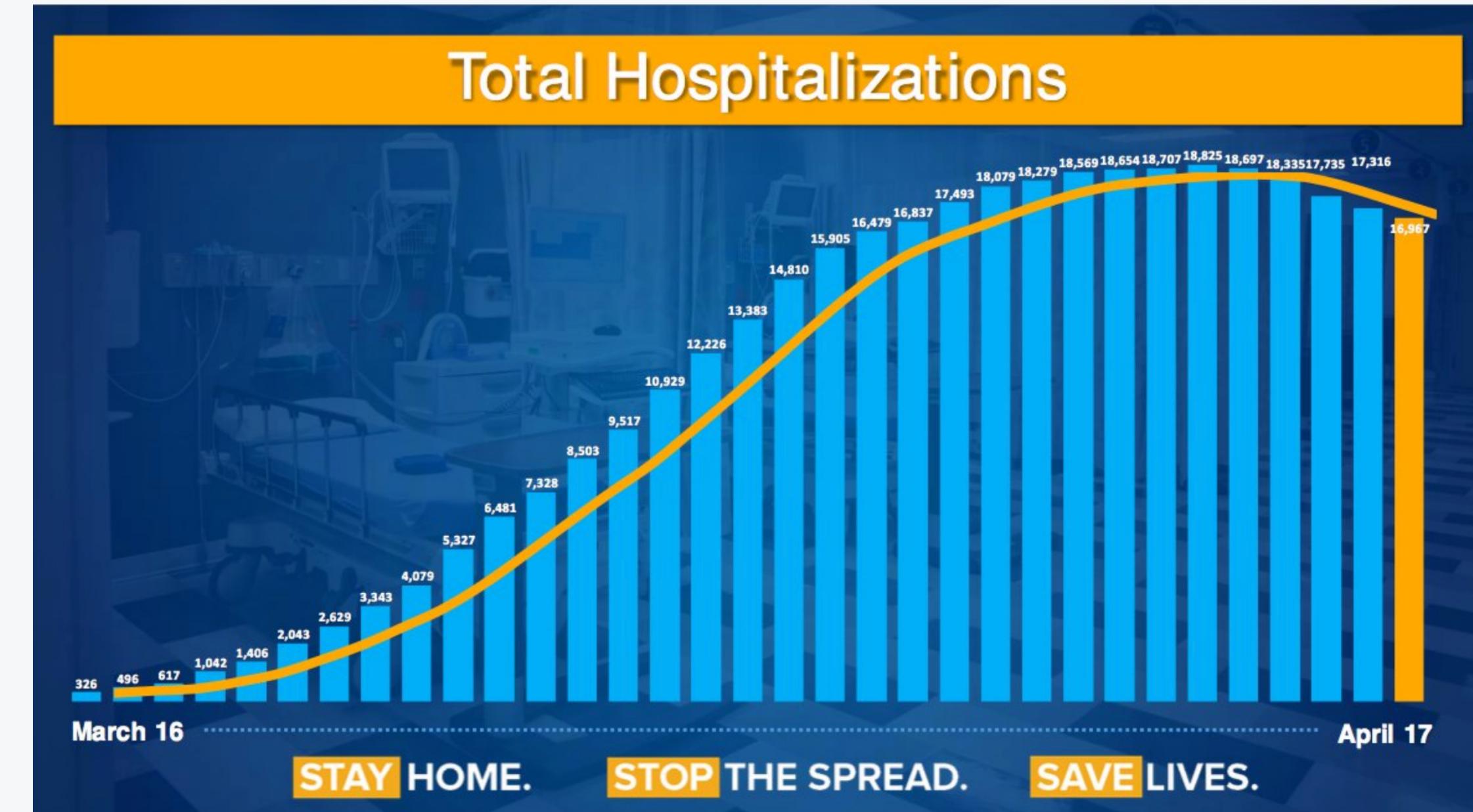
Like many New Yorkers, we organize our day around Governor Andrew Cuomo's press conferences, and have come to rely on his steady explanation of where we are in the fight again COVID-19. With uncertainty and misinformation rampant, these **predictable, measured, daily briefings** have become a lifeline for us. As information designers, we have also been pleased to see the starring role that graphs and tables have played in these press conferences, and often see individual slides circulate on social media.

Yet despite our appreciation for the Governor's approach, we also saw a clear opportunity to **improve the visualizations** of his slide deck to more effectively and vividly communicate these important statistics. We immediately saw the potential to inject more **nuance, context, and humanity** into the Governor's various graphs and charts, without sacrificing the exactitude we'd come to depend on. As a team, we decided to take a crack at redesigning the slides ourselves.



We began our work by conducting an audit of the Governor's presentations to date, trying to understand what made his visualizations effective, while also identifying areas we knew we could target for improvement. After re-watching half a dozen of his presentations, we quickly discovered that **legibility and simplicity** were key. These are vital stats that all people need to know, so this was no time for anything less than total clarity. But we also came to the realization that important, even **critical information** was being glossed over and ignored in these visual aids. There were additional insights hiding in the data, ones we felt were important to surface for New Yorkers who were tuning in every day.

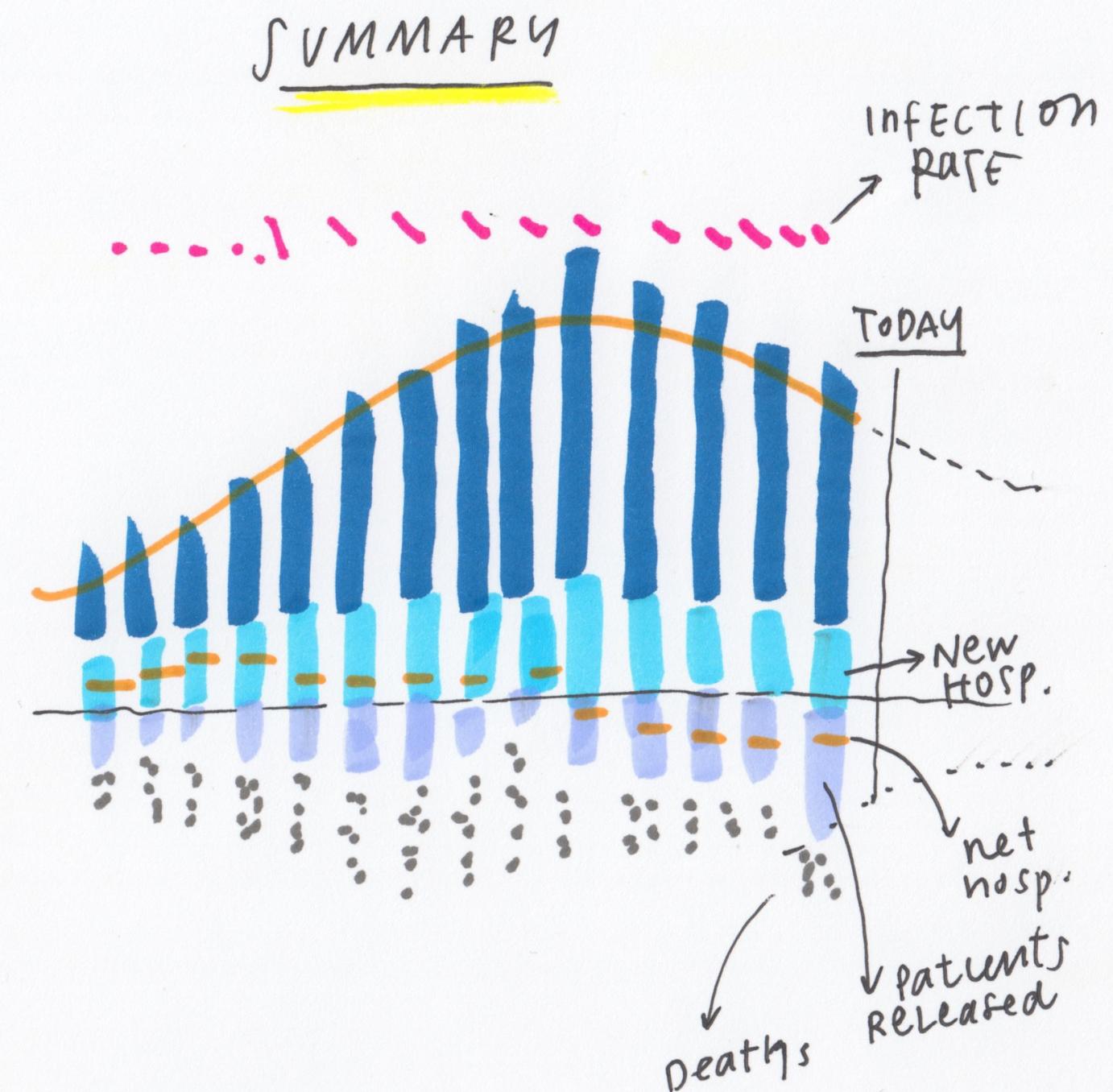
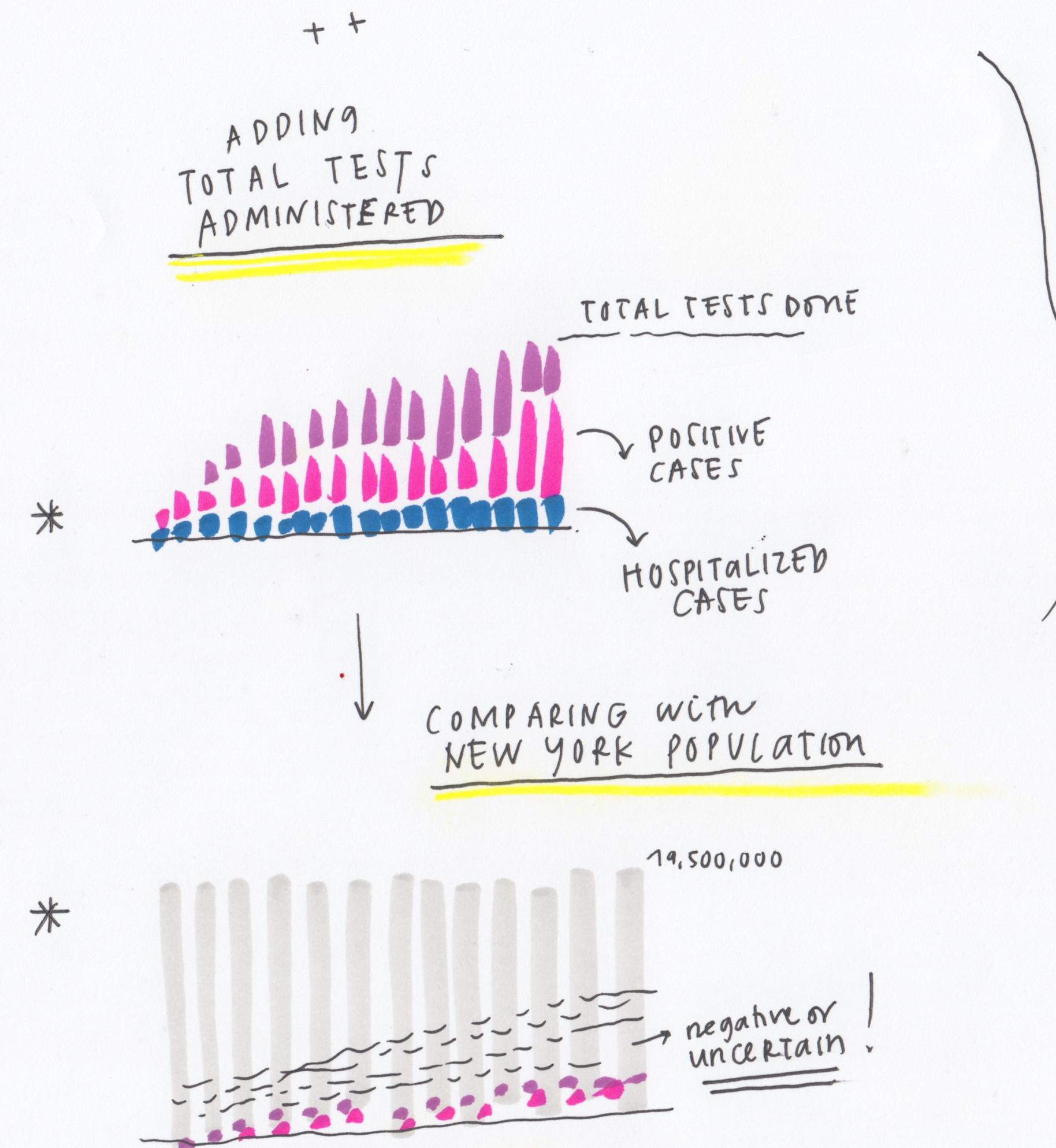
We also noticed that a few graphs are reliably shown at every press conference: a bar graph of hospitalizations, a list of numbers signifying deaths per day, and then a diagram illustrating the "R-naught," or the average rate of infection for the virus. We decided to focus on these **three core visualizations**, redesigning them from the ground up and adding new layers of data which we felt would enrich them. In addition, we also created a new visualization for COVID-19 tests given/positive diagnoses. As testing becomes more prevalent across the state, we also wanted to try our hand at imagining what this graph should look like.



## INITIAL CONCEPT

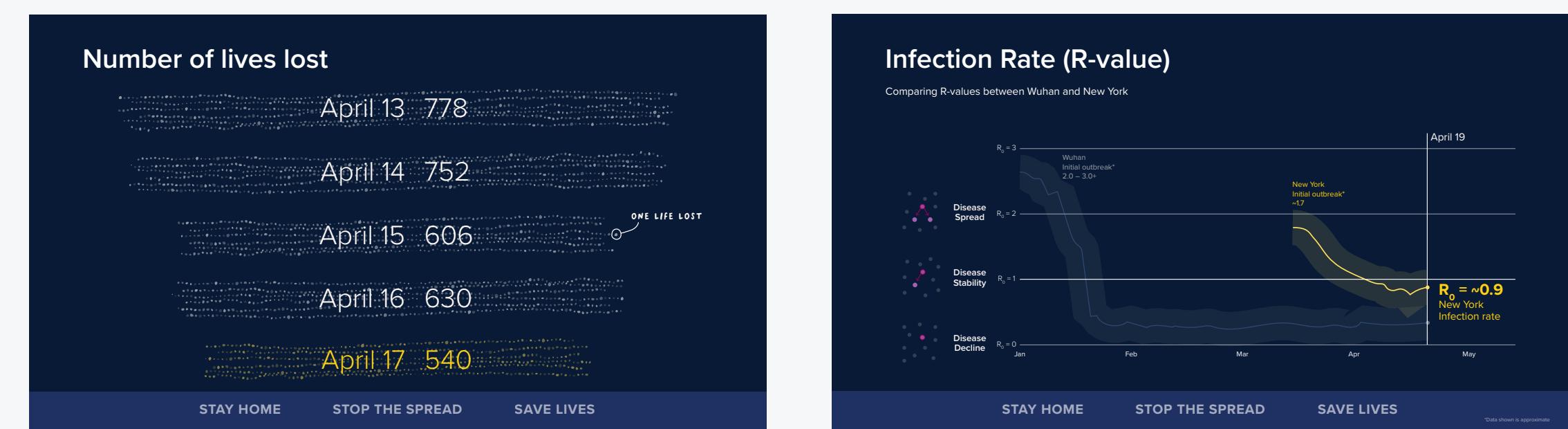
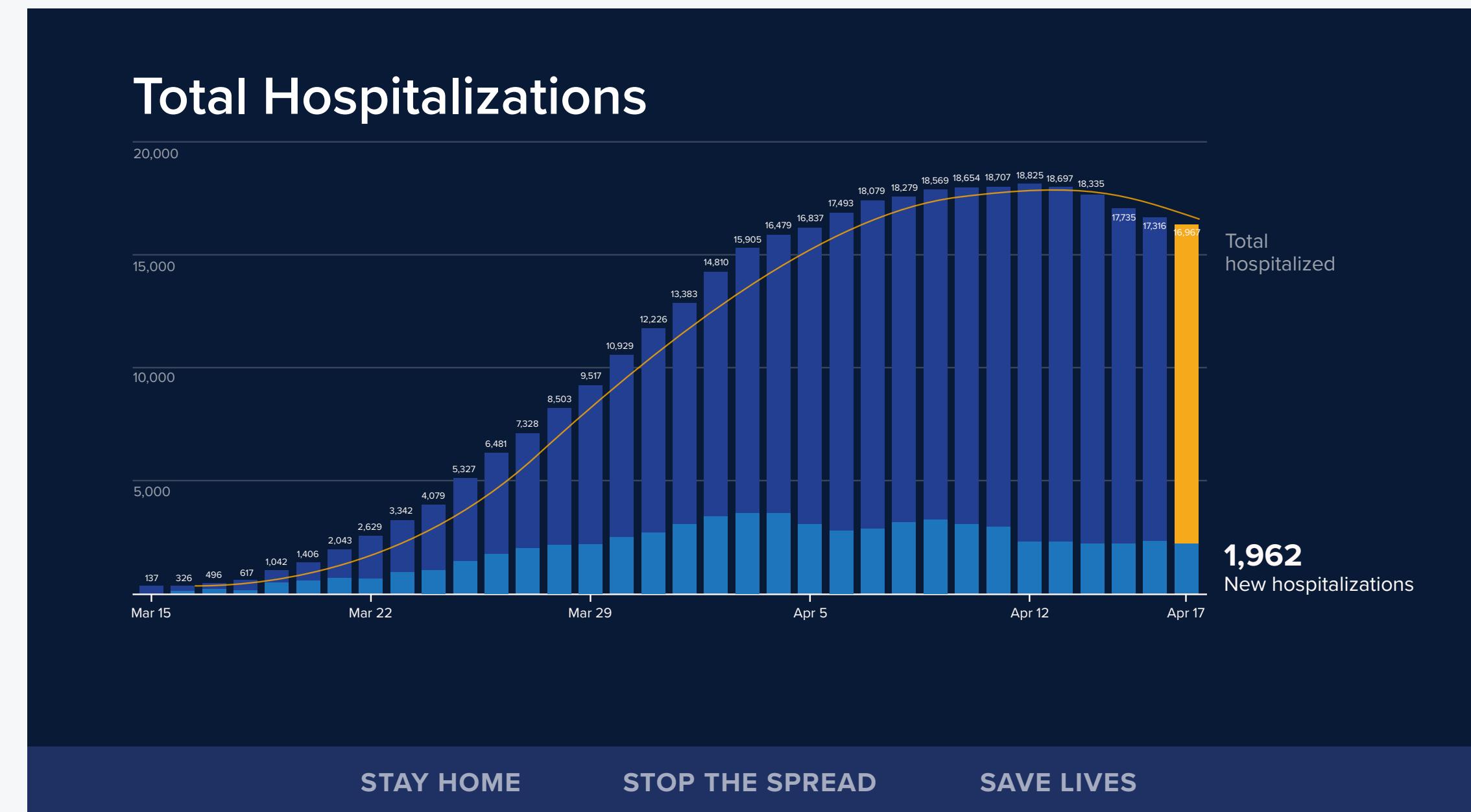


## INITIAL CONCEPT

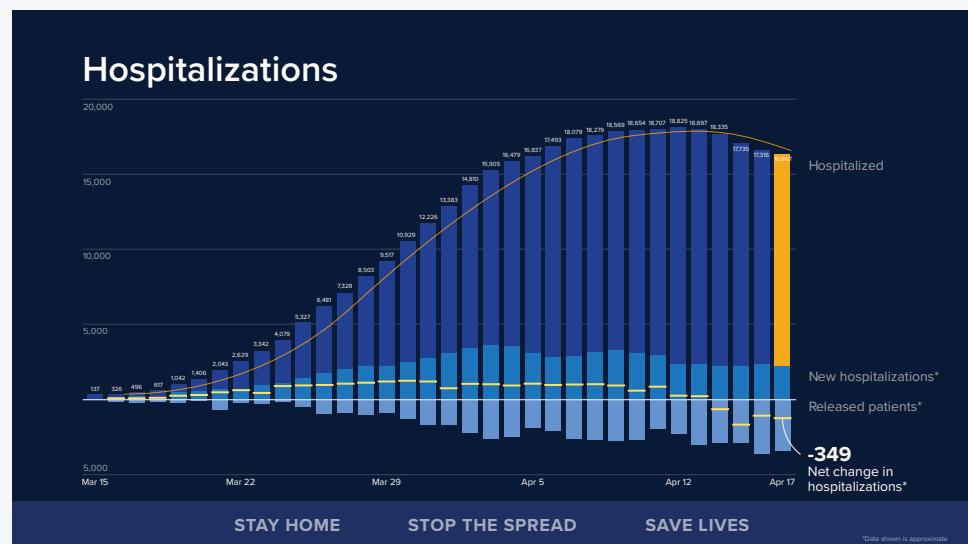


Visually, we wanted to be as accurate as possible in our new visualizations, down to using the color palette and fonts specified in New York State's brand guidelines, and preserving the familiar "Stay Home, Stop the Spread, Save Lives" footer graphic that we've come to expect from the Governor's slide deck. However, it's important to note that redesigning these slides is a wholly **speculative exercise**. We are information designers, not statisticians. We don't pretend to be experts on these numbers, and know for instance that there are considerable discrepancies in how data is being collected by hospitals and health agencies. Some of the data included in these slides doesn't exist in publicly available sources, so we had to make informed conjectures (we've noted with asterisks where).

But despite these shortcomings, we believe this work is a meaningful starting point for more successful data visualizations. Our role here is merely as engaged citizens, who care deeply about ensuring both broad and deep understanding of the pandemic's unfolding impact on all of us. Above all, we hope this project starts a conversation about the **role of information design** in moments such as these, and hope to continue to iterate on this work as we collect more feedback from the field.

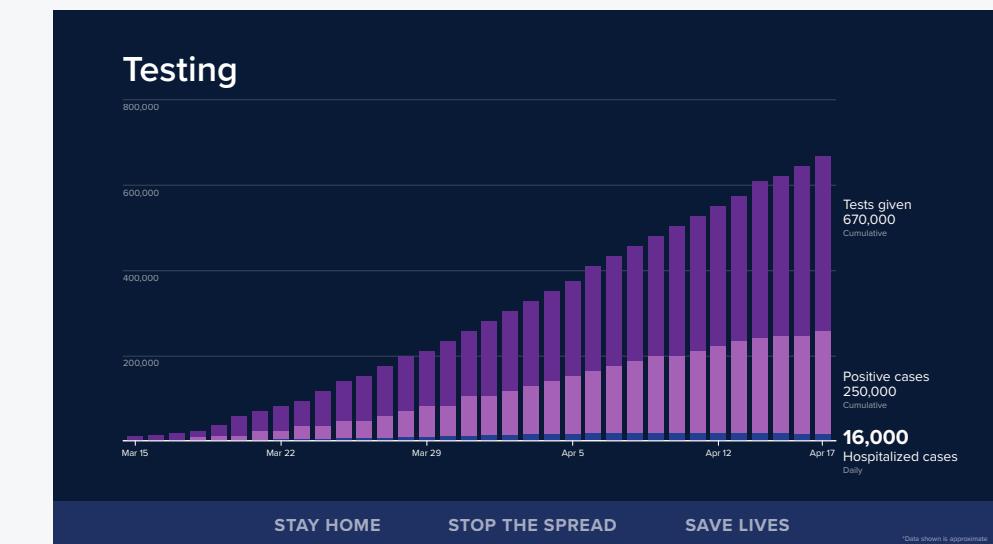


A more detailed look at the changes we made:



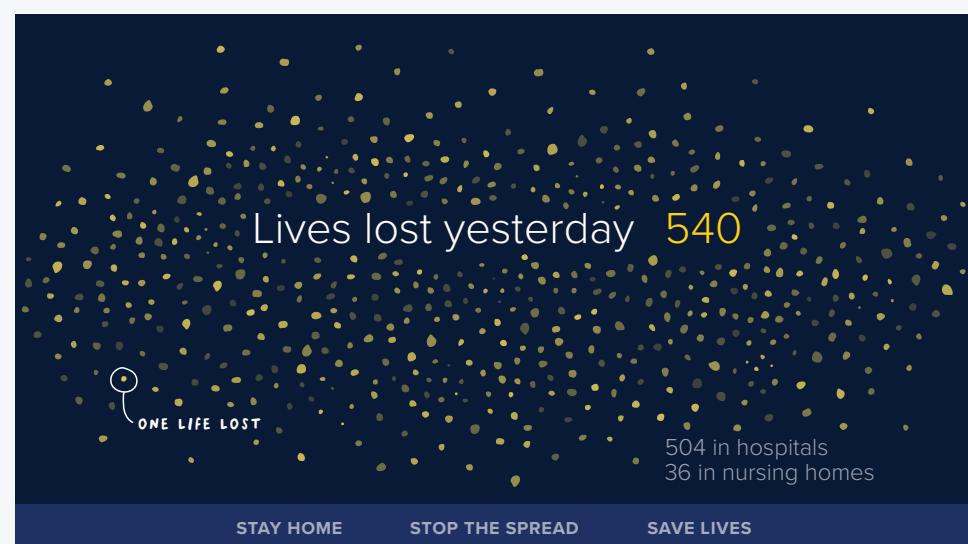
## HOSPITALIZATIONS

The Governor's slide for hospitalizations focuses on the daily hospital population, as well as the rolling average curve to imply a trend. Starting with these elements, we then began to add successive layers of additional information that we felt were necessary to further contextualize the core statistics. We felt it would be important to overlay both new hospitalizations and discharges, to illuminate the forces that are moving the graph's slope downward.



## TESTS/POSITIVE DIAGNOSES (ADDED SLIDE)

In this slide, we wanted to give shape to the proportion of tests completed (an important measure of our societal response to the pandemic) to positive cases. It was also important to compare this data with the number of hospitalizations, which in this context look minuscule. Finally, we also wanted to shed light on missing data: the number of asymptomatic individuals who don't know they have the virus, or those who suspect they do but are self-treating at home. We chose to represent this data, which is unknown but estimated to be up to 25% of all New Yorkers, with gradient color to evoke imprecision and ambiguity.



## DEATHS

The Governor's slide recounting daily COVID-19 deaths, or "lives lost," is probably the most interesting. Rather than presented as a sterile bar graph, instead the number of deaths is listed only numerically, like a grim tally. To underscore the inherent humanity of these statistics, we instead introduced an imprecise dot to metaphorically represent one individual death from the virus, creating a sort of visual memorial to those who have unfortunately succumbed.



## R-NAUGHT

This was our most comprehensive redesign: the R-naught, or the average number of people one person will infect. It's a complicated stat for most laypeople, but we thought by visualizing the number on a timeline, with a comparison to the R-naught of Wuhan, this important measure would be made clearer.

Today is day 49

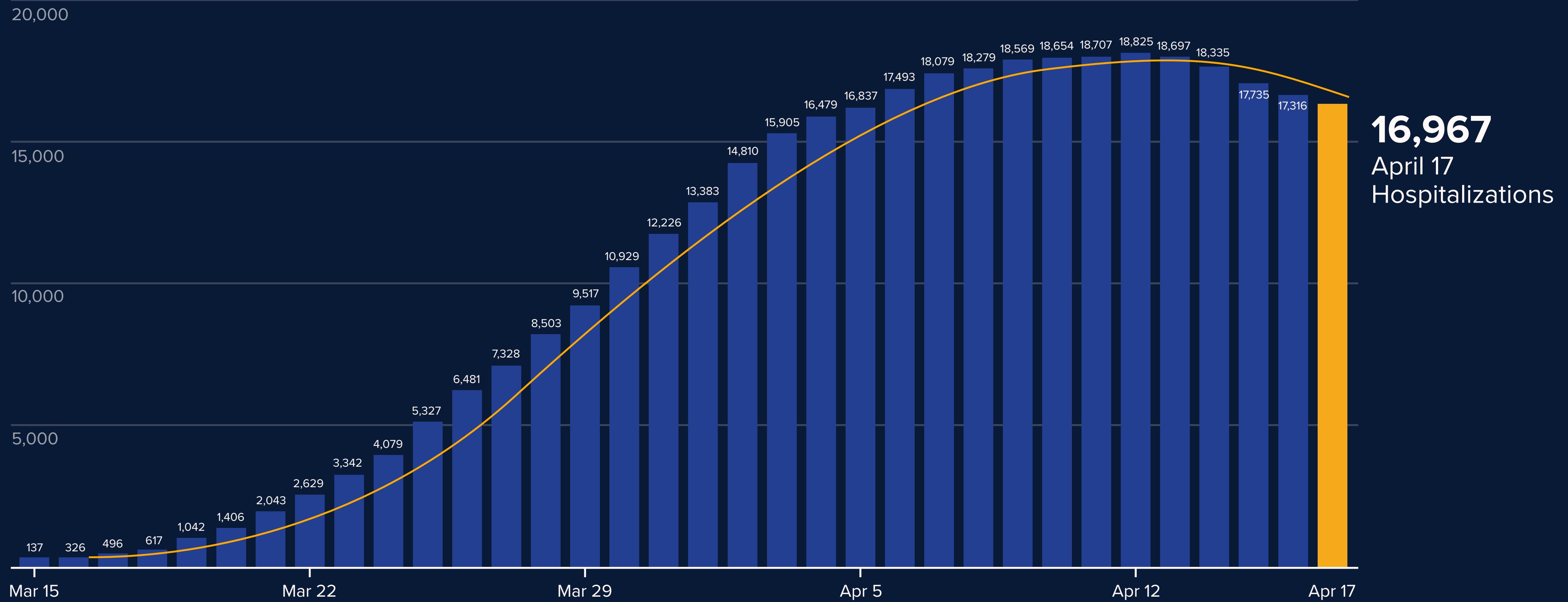
**STAY HOME**

**STOP THE SPREAD**

**SAVE LIVES**

The following data is presented  
in context of April 18

# Hospitalizations

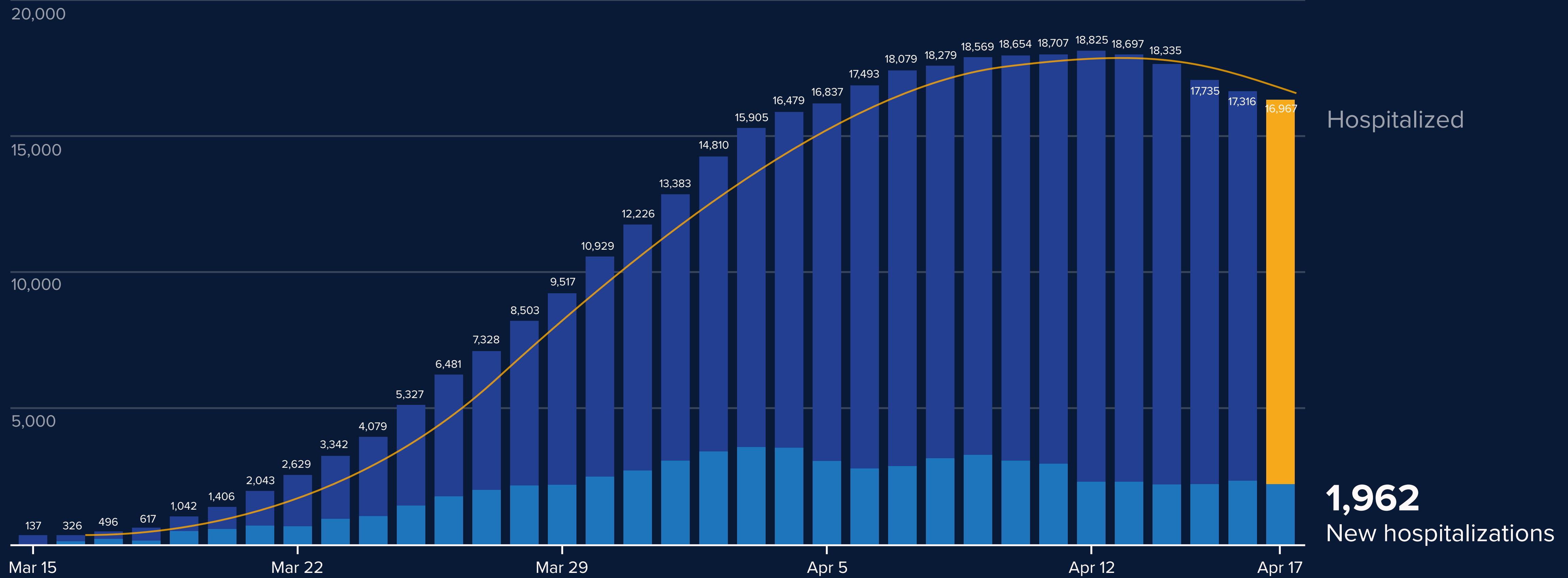


STAY HOME

STOP THE SPREAD

SAVE LIVES

# Hospitalizations



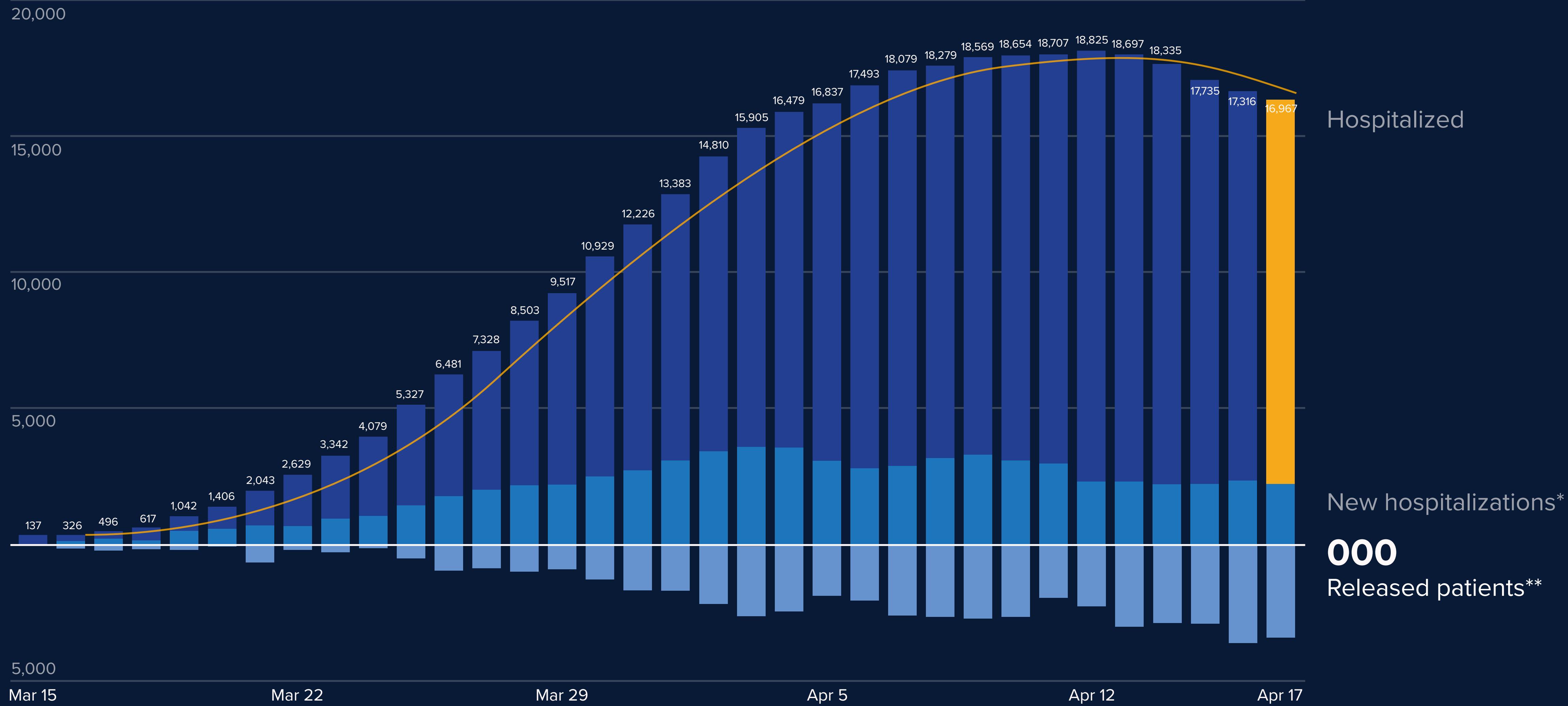
STAY HOME

STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Hospitalizations



STAY HOME

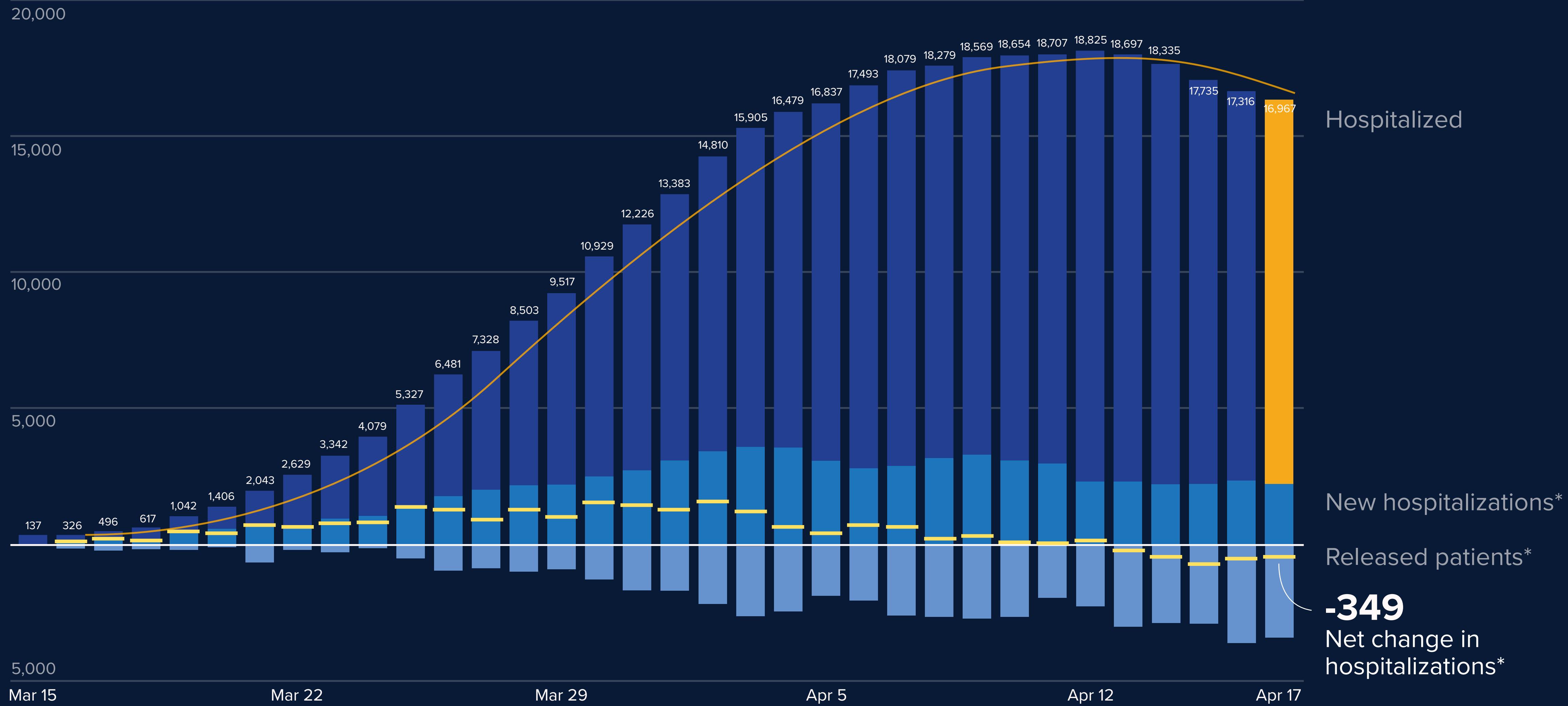
STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

\*\*Data unavailable

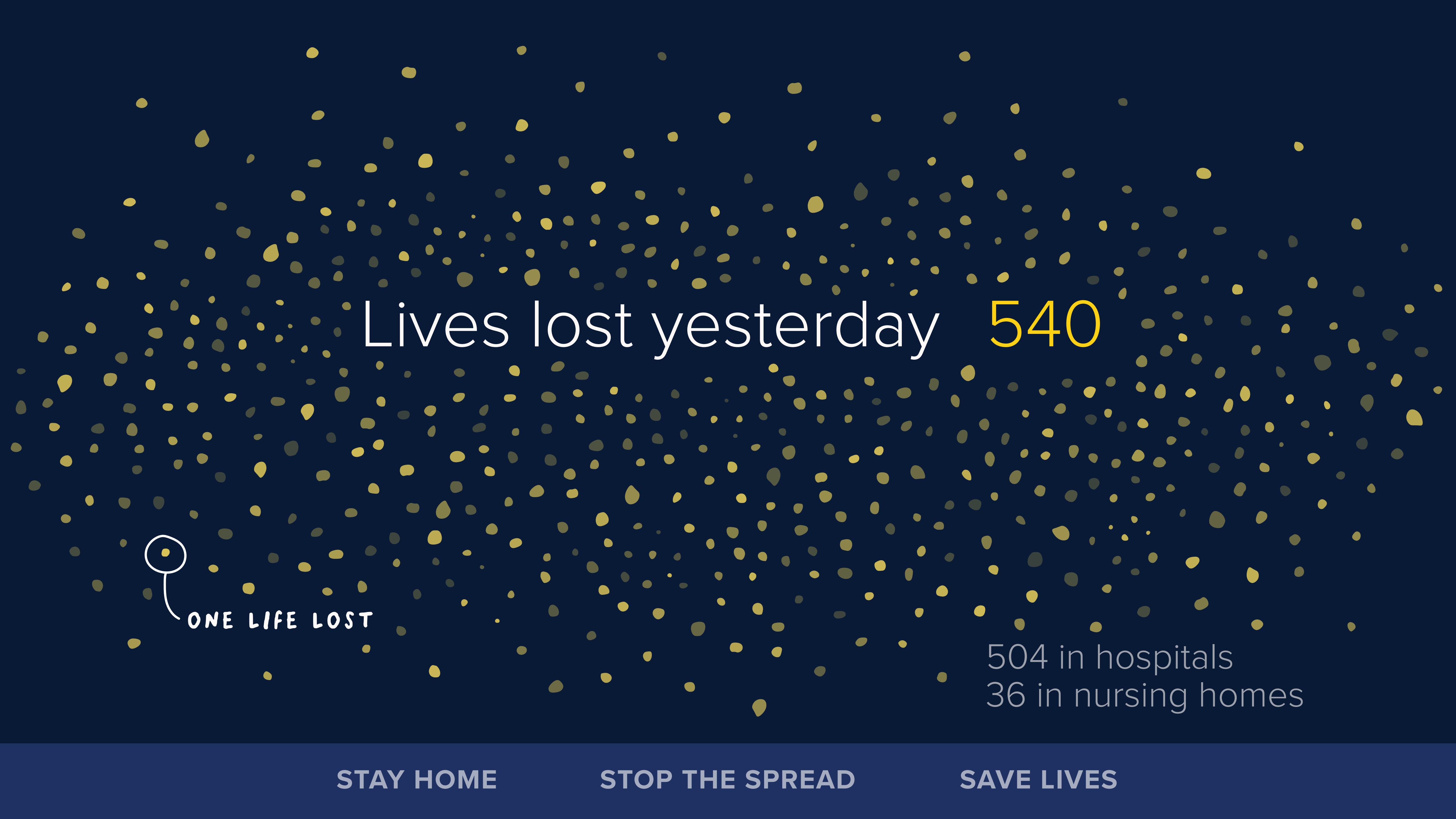
# Hospitalizations



STAY HOME

STOP THE SPREAD

SAVE LIVES



Lives lost yesterday **540**



ONE LIFE LOST

504 in hospitals  
36 in nursing homes

STAY HOME

STOP THE SPREAD

SAVE LIVES

# Number of lives lost

April 13 778

April 14 752

April 15 606

April 16 630

April 17 540



ONE LIFE LOST

STAY HOME

STOP THE SPREAD

SAVE LIVES

# Testing

800,000

600,000

400,000

200,000

Mar 15

Mar 22

Mar 29

Apr 5

Apr 12

Apr 17

**670,000**  
Tests given  
Cumulative

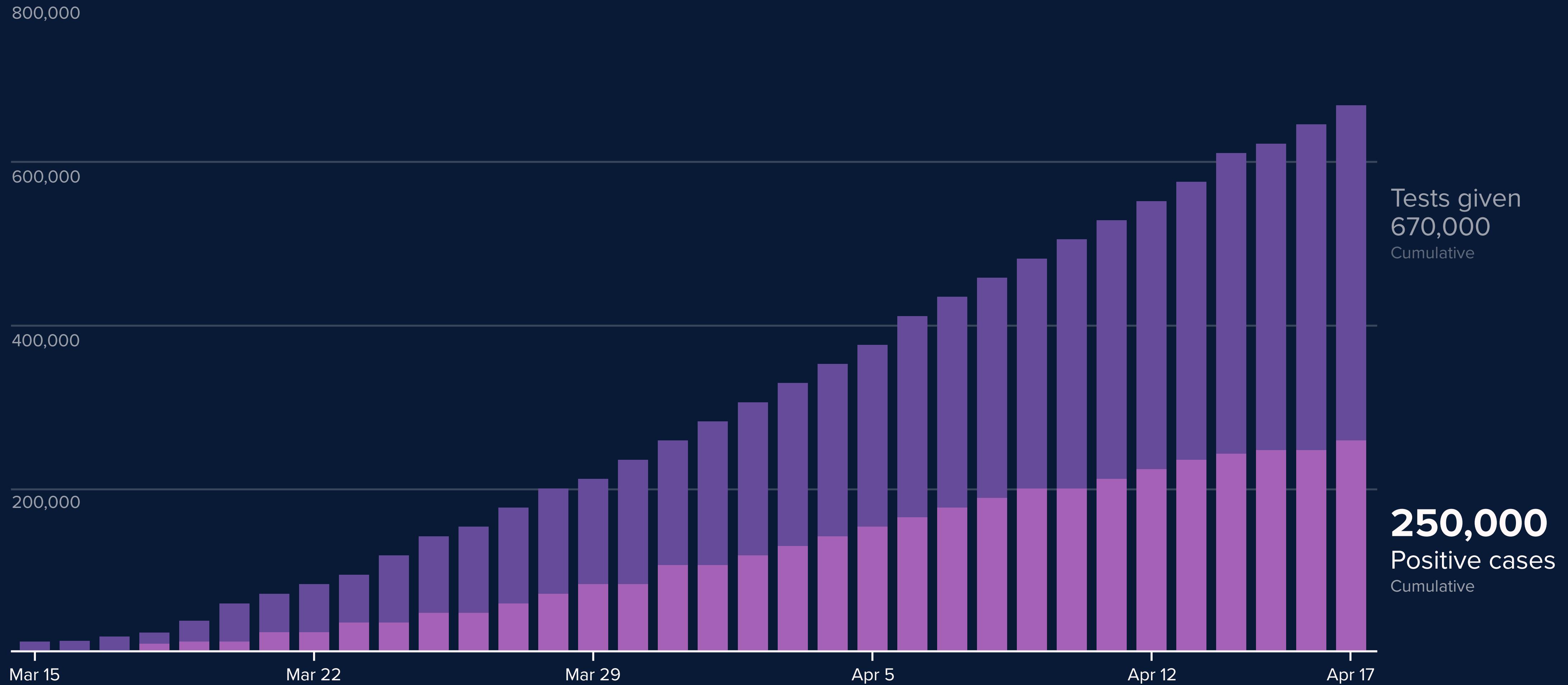
STAY HOME

STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Testing



STAY HOME

STOP THE SPREAD

SAVE LIVES

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# Testing

800,000

600,000

400,000

200,000

Mar 15

Mar 22

Mar 29

Apr 5

Apr 12

Apr 17

Tests given  
670,000  
Cumulative

Positive cases  
250,000  
Cumulative

**16,000**  
Hospitalized cases  
Daily

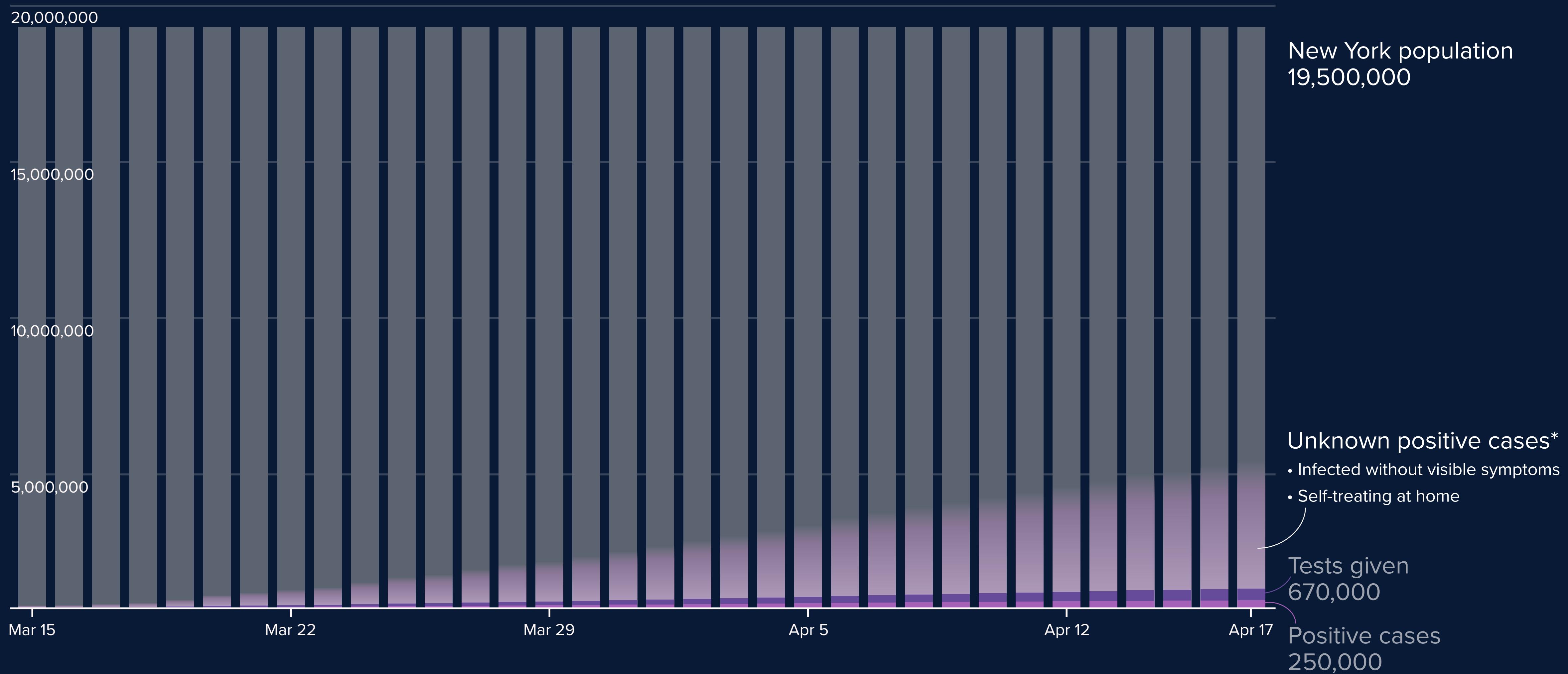
STAY HOME

STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Testing



STAY HOME

STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Infection Rate (R-naught)



STAY HOME

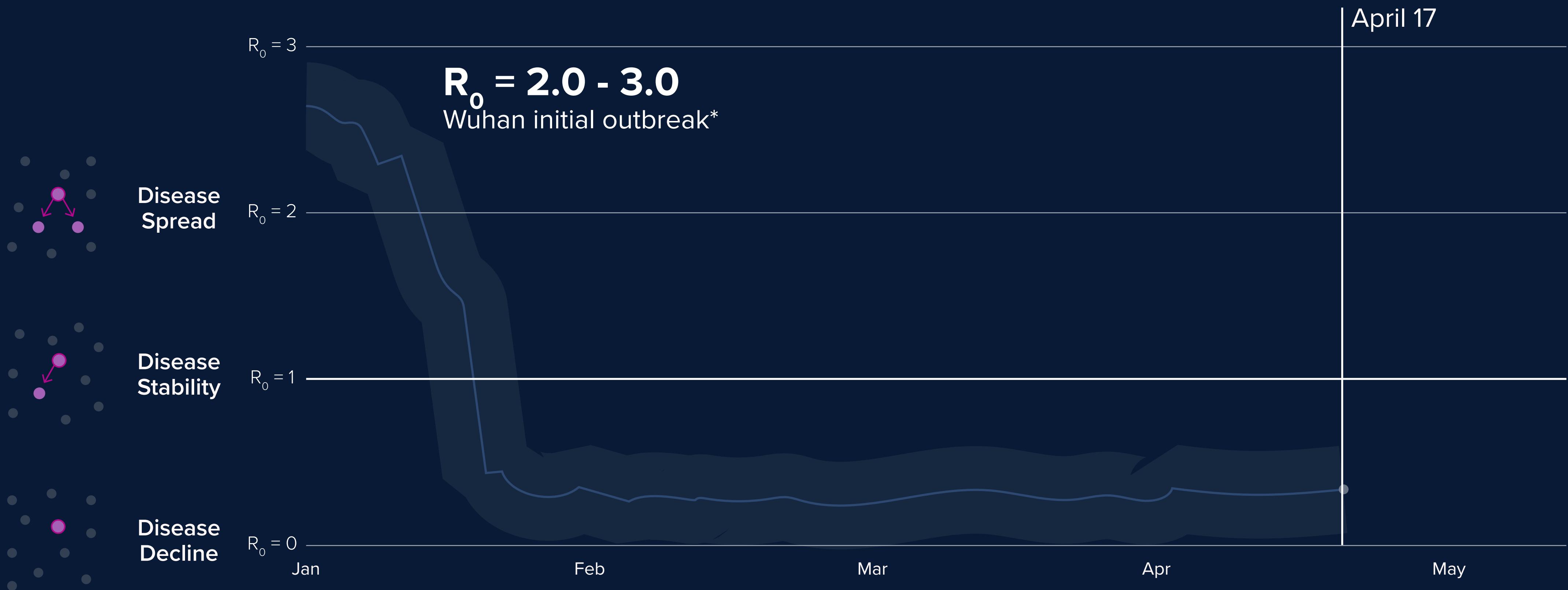
STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Infection Rate (R-naught)

Comparing R-naught between Wuhan and New York



STAY HOME

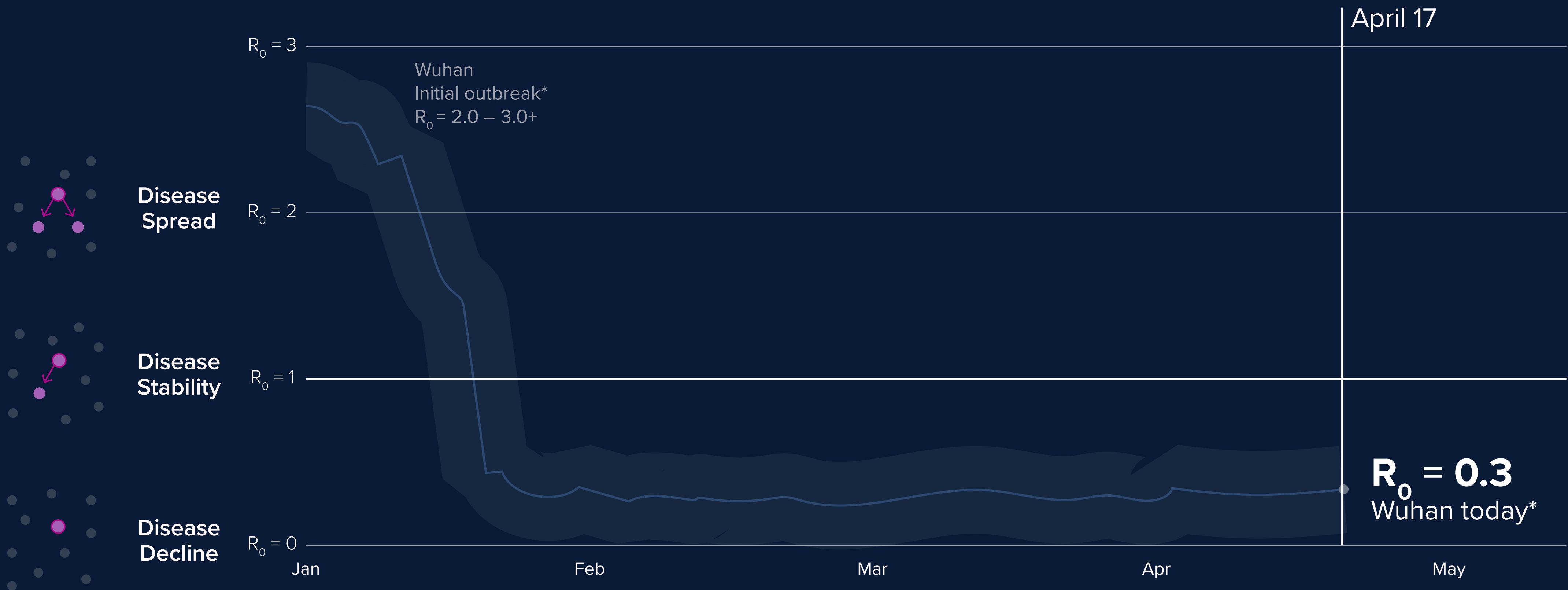
STOP THE SPREAD

SAVE LIVES

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Comparing R-naught between Wuhan and New York



STAY HOME

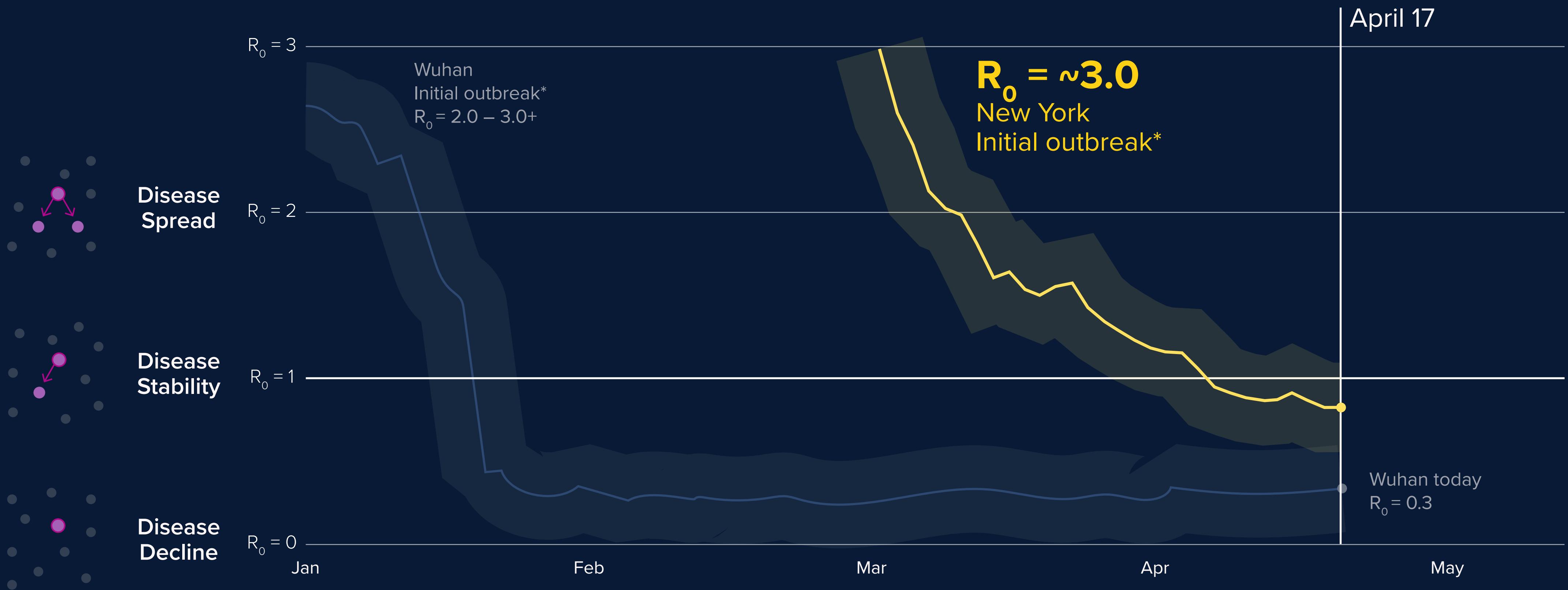
STOP THE SPREAD

SAVE LIVES

\*Data shown is approximate

# Infection Rate ( $R$ -naught)

Comparing  $R$ -naught between Wuhan and New York



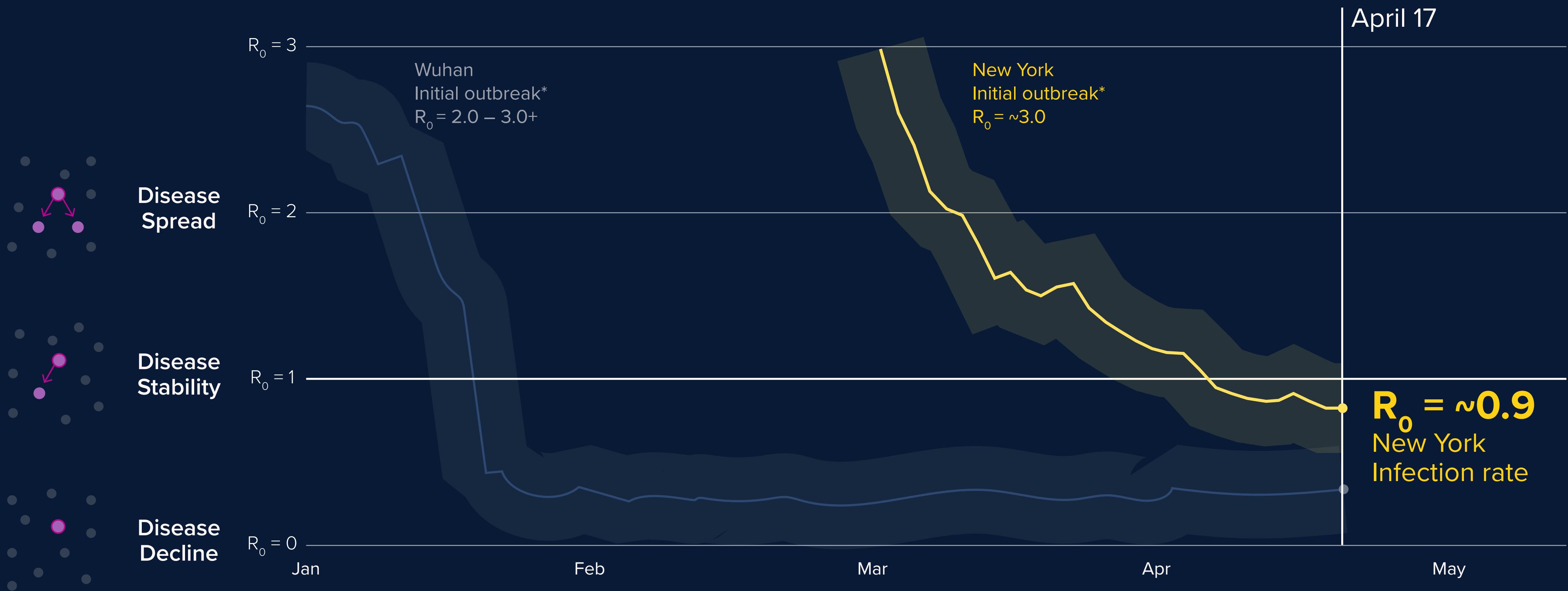
STAY HOME

STOP THE SPREAD

SAVE LIVES

# Infection Rate (R-naught)

Comparing R-naught between Wuhan and New York

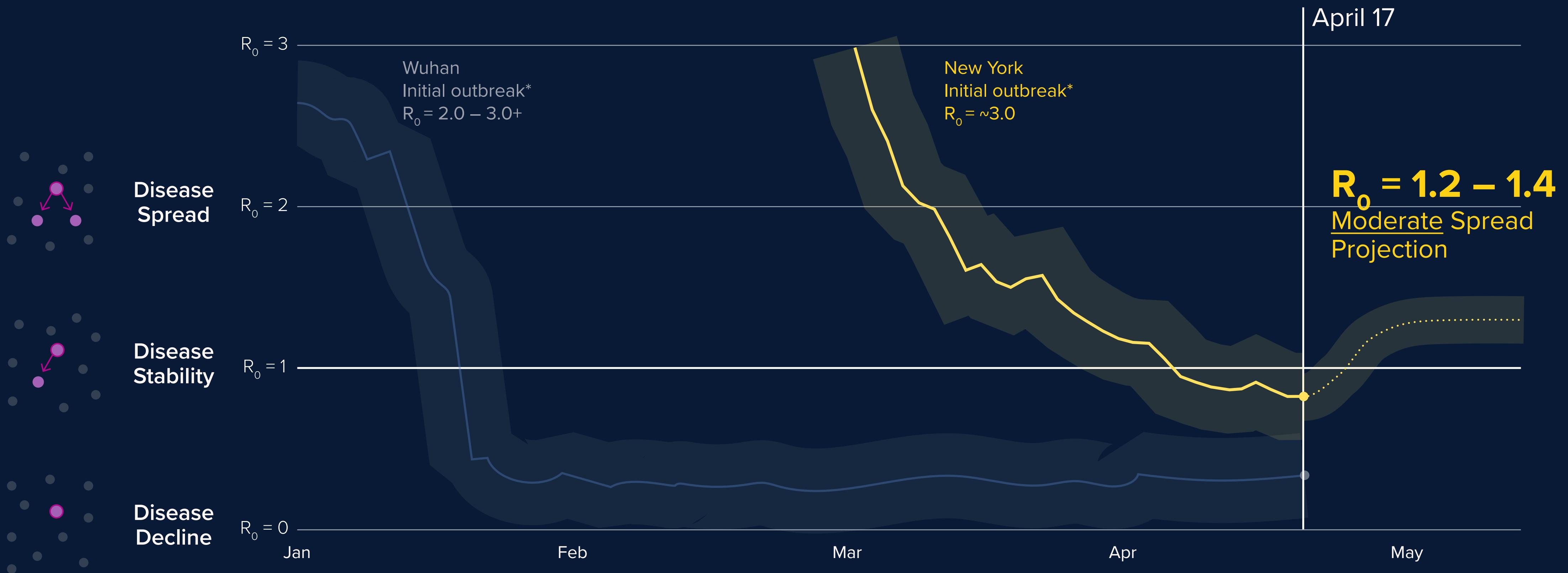


STAY HOME

STOP THE SPREAD

SAVE LIVES

# Infection Rate ( $R$ -naught) Projection

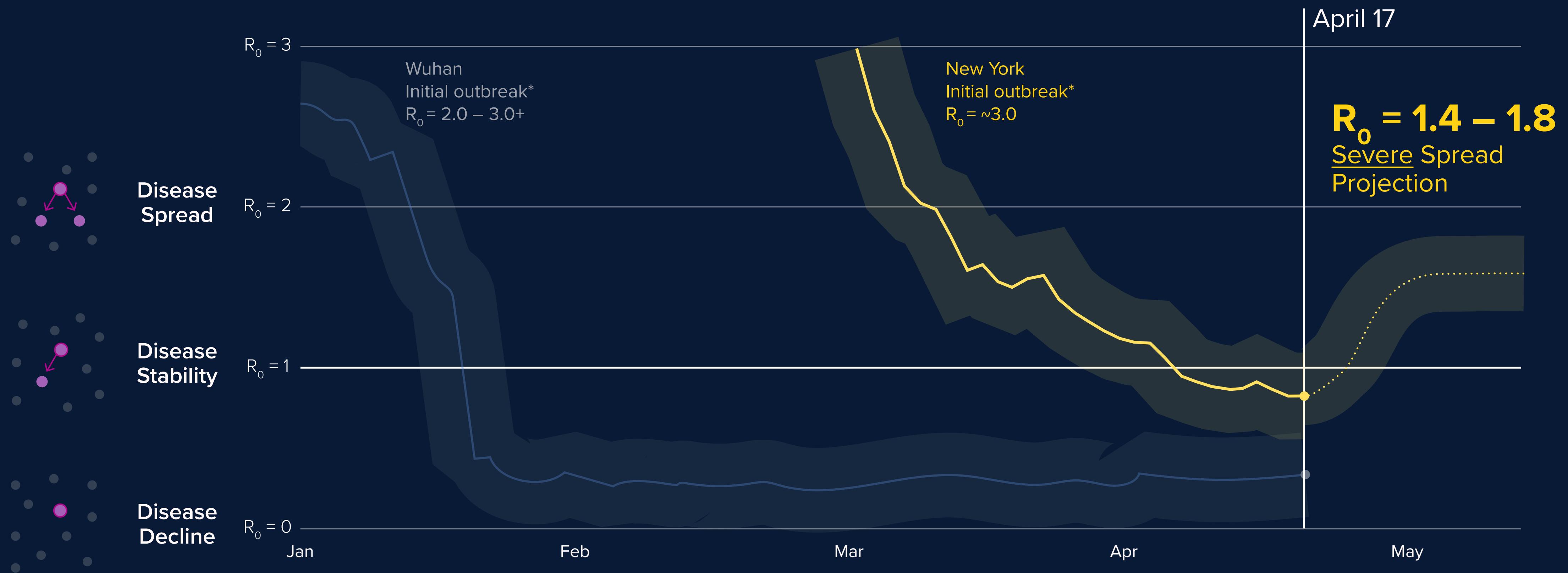


STAY HOME

STOP THE SPREAD

SAVE LIVES

# Infection Rate ( $R$ -naught) Projection

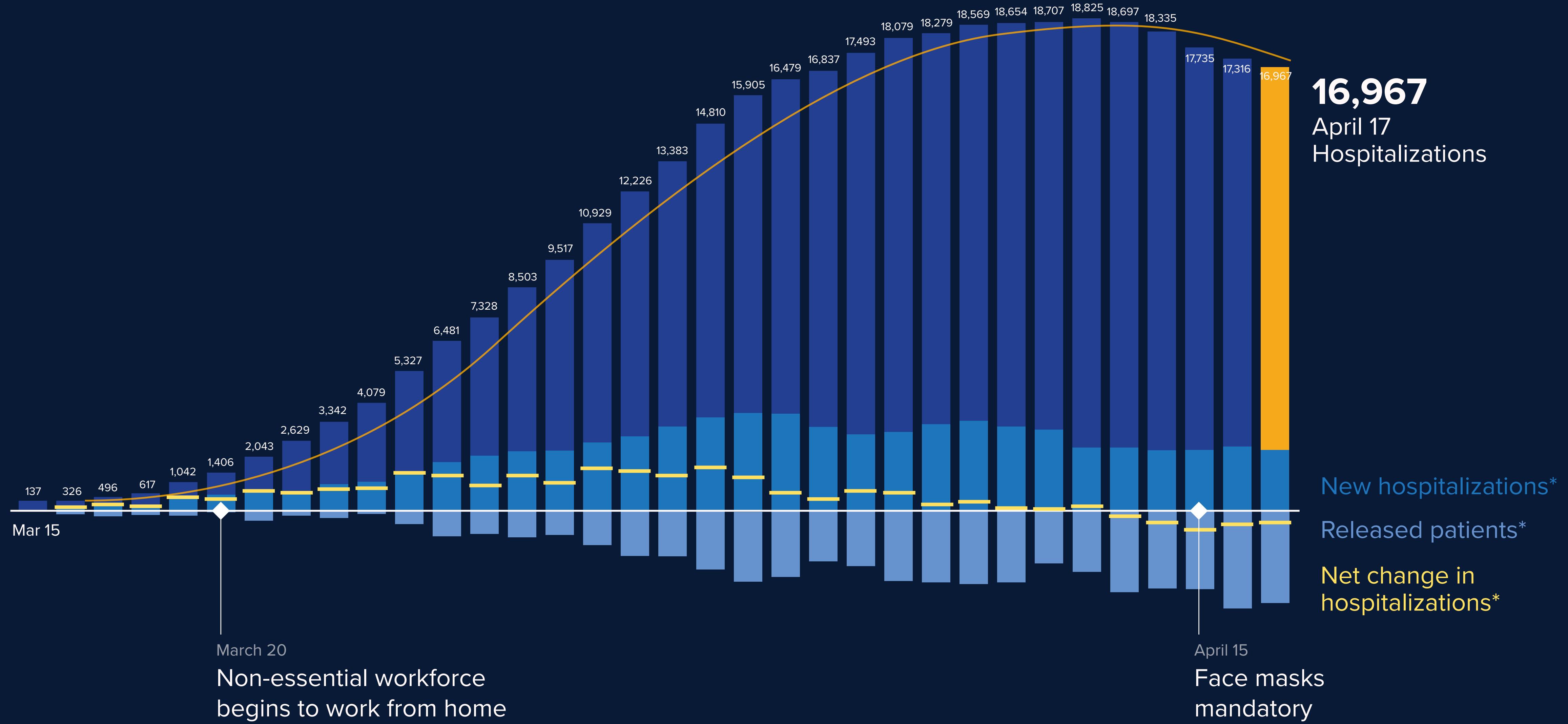


STAY HOME

STOP THE SPREAD

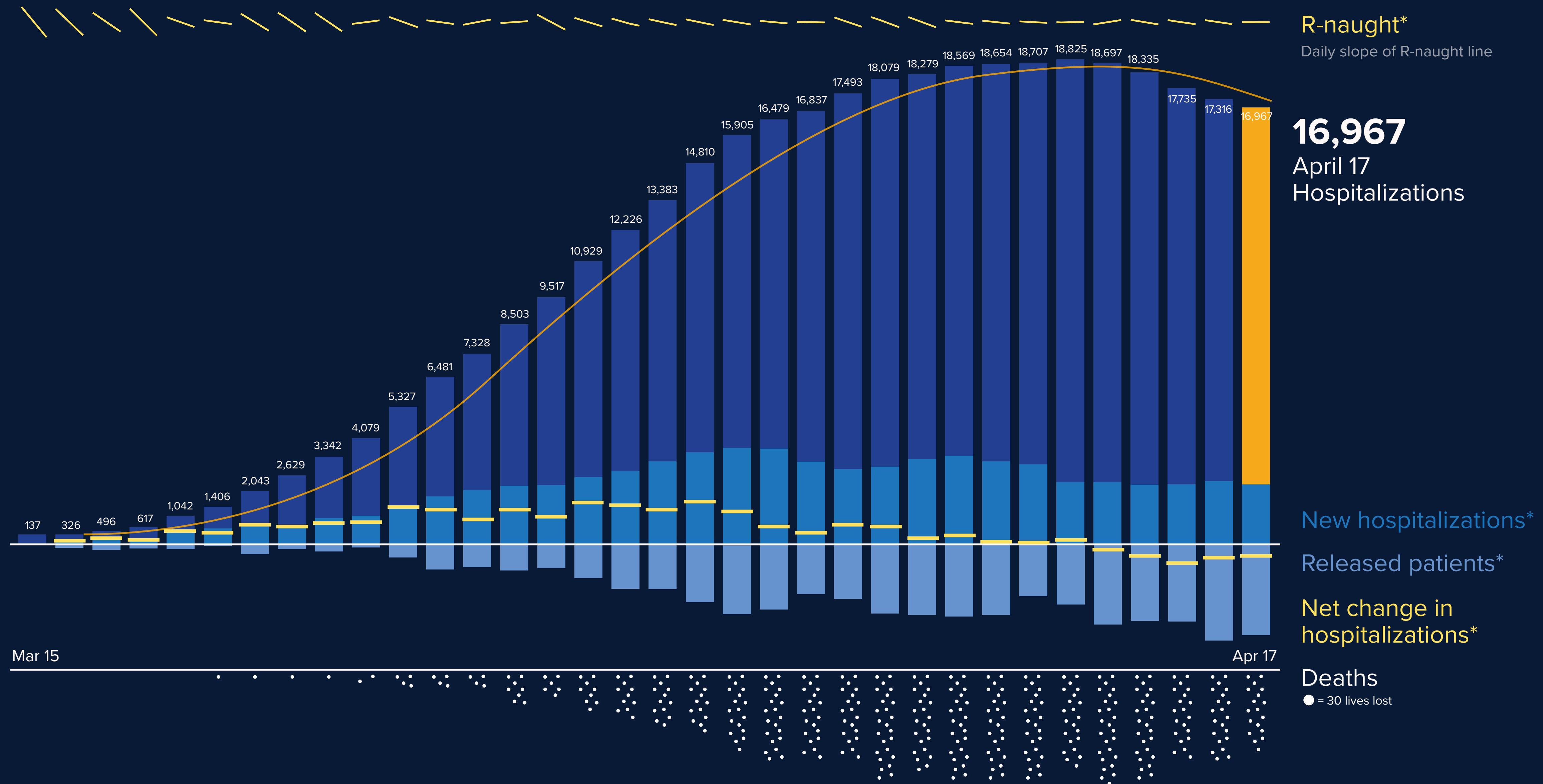
SAVE LIVES

# Summary



\*Data shown is approximate

# Summary



**THANK YOU**

Pentagram